

Quail Valley Draft Environmental Impact Report



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0.0 Executive Summary

The California Environmental Quality Act (CEQA), Public Resources Code Section 21000 *et. seq.* requires that before a public agency makes a decision to approve a project that could have one or more adverse effects on the physical environment, the agency must inform itself about the project's potential environmental impacts, give the public an opportunity to comment on the environmental issues and take feasible measures to avoid or reduce potential harm to the environment.

This environmental impact report (EIR), having California **State Clearinghouse #2018101045**, was prepared in accordance with CEQA Guidelines Article 9, Sections 15120 to 15132 to evaluate potential environmental impacts associated with planning, constructing and operating the proposed Quail Valley Planned Development (Project). This EIR does not recommend approval, approval with modification, or denial of the Project. Rather, this EIR is a source of factual information pertaining to potential impacts the Project may cause to the physical environment. The Draft EIR will be available for public review for a minimum period of 45 days. After consideration of public comment, the City of Palmdale will consider certifying the Final EIR and adopting required findings.

This Executive Summary complies with CEQA Guidelines Section 15123 ("Summary"). This EIR document includes a description of the Project and evaluates physical environmental effects that could result from Project development and operation. The EIR scope was determined through the completion of an Initial Study accepted by the City of Palmdale pursuant to CEQA Guidelines Section 15063 and in consideration of public comment received by the City in response to this EIR's Notice of Preparation (NOP). The Initial Study, NOP, and written comments received by the City in response to the NOP are attached to this EIR as *Technical Appendix A*. As determined by the Initial Study and in consideration of public comment on the NOP, the environmental subject areas that could be reasonably and significantly affected by planning, constructing, and/or operating the Project are analyzed herein, including:

- Aesthetics
- Agriculture and Forestry Resources
- Air Quality
- Biological Resources
- Cultural Resources
- Energy
- Geology and Soils
- Greenhouse Gas Emissions
- Hazards and Hazardous Materials
- Hydrology and Water Quality
- Land Use and Planning
- Mineral Resources
- Noise
- Population and Housing
- Public Services
- Recreation
- Transportation
- Tribal Cultural Resources
- Utilities
- Wildfire

Refer to EIR Section 4 (*Environmental Analysis*) for a full analysis of subjects indicated above. Subject areas for which the Initial Study concluded that impacts would clearly be less than significant and that do not warrant detailed analyses in this EIR are addressed in EIR Section 5 (*Other CEQA Considerations*).

For each of the subject areas analyzed in detail in Section 4, this EIR describes the following:

- The physical conditions that existed at the approximate time this EIR's NOP was filed with the California State Clearinghouse;
- The type and magnitude of potential environmental impacts resulting from Project development (grading; construction) and operation; and,
- If warranted, recommended feasible Mitigation Measures that would reduce or avoid significant adverse environmental impacts that the Project may cause.

A summary of the Project's significant environmental impacts and Mitigation Measures on the Project to lessen or avoid those impacts is included in this Executive Summary as Table ES-1 (*Mitigation Monitoring and Reporting Program*). The City of Palmdale, as the lead agency, applies Mitigation Measures that it determines 1) are feasible and practical for project applicants to implement, 2) are feasible and practical for the City of Palmdale to monitor and enforce, 3) are legal for the County to impose, 4) have an essential nexus to Project impacts, and 5) would result in a benefit to the physical environment. CEQA does not require the Lead Agency to apply Mitigation Measures that are duplicative of mandatory regulatory requirements.

0.1 PROJECT OVERVIEW

Location and Setting

The approximately 878-acre Project site is located on the south side of Avenue S, approximately 1.2 miles west of California State Route 14 (SR-14). The location of the Project site is depicted in **Exhibits 3.1-1 (Regional Location Graphic)** and **3.1-2 (Project Location Map)**.

The entire Project site is located within the City of Palmdale Sphere of Influence and has existing General Plan and pre-zoning land use designations established by the City. The site carries City pre-annexation General Plan designations of LDR (Low Density Residential – Up to 1 du/ac), and SFR1 (Single Family Residential – Up to 2 du/ac). The site also carries Prezoning designations of PZ-LDR (Prezone Low Density Residential – up to 1 du/ac) and PZ-SFR1 (Prezone Single-Family Residential – 1, Up to 2 du/ac), as shown on **Exhibit 2-6, (Existing Land Use & Zoning)**. The City of Palmdale is proposing to annex the entire Project site and adjacent parcels to the north, south, east and west of the Project site consistent with the City Sphere of Influence boundary. The proposed annexation boundary currently includes 211 parcels (53 parcels within the Project site and 158 additional parcels within unincorporated Los Angeles County) that occupy a total approximately 1,310 acres. **Exhibit 3.1-3 (Annexation Boundary)** depicts the proposed Annexation Boundary.

The Project site is bordered by single-family residential dwellings to the north/northwest and east, and by vacant land to the north across Avenue S., south and west.

Project Objectives

The primary goal of the Project is to develop a residential community to provide additional housing opportunities for Palmdale. The Project would achieve this goal through the following specific objectives.

- To build a residential community in compliance with City of Palmdale General Plan goals and policies and City of Palmdale Municipal Code design and safety requirements.
- To provide housing opportunities that will expand and enhance the City of Palmdale's housing stock and help fulfill the City's need to meet its regional housing goals.
- To make efficient use of undeveloped property zoned for residential use in the Palmdale area by providing additional and varied housing opportunities for new residents.
- To maintain the integrity of the nearby single-family residential neighborhoods through quality contemporary design, appropriate structural setbacks, architectural treatments, and grading techniques.
- To provide extensive open space and recreational opportunities on-site that exceeds the City of Palmdale's Park and Open Space requirement.
- To encourage walking and bicycling by incorporating comprehensive trails on-site with direct access to the Los Angeles County Regional Trail system and future trails within the City of Palmdale.
- To minimize the impact to the existing environment and natural landforms to the maximum extent feasible.
- To preserve hillsides and mountain vistas pursuant to the City of Palmdale's Hillside Management Ordinance.
- To design and build a Project that respects the natural biotic communities on the Project site.
- To build a Project that respects and sustains the rich aesthetic beauty of the Project site and Project site vicinity.
- To build a Project that contributes to the City of Palmdale's tax revenue.

Project Summary Description

The entire approximately 878.1-acre Project site is comprised of two Planning Areas – Area A (Tentative Tract Map 65813) and Area B. Area A occupies approximately 667 acres in the northerly portion of the Project site adjacent to Avenue S and will contain the developed component of the Project. Area B occupies approximately 210 acres in the higher elevations of the foothills to the ridgeline of the Sierra Pelona Mountains and will remain undisturbed as open space. Reference **Exhibits 3.1-4 (Planned Development Plan)** and **3.1-5 (Site Plan)** that depict the overall proposed development scheme.

The approximately 878.1-acre Quail Valley Planned Development (Project) involves the following:

- Planned Development 18-001– to seek approval of the Quail Valley Planned Development Plan text.
- Tentative Tract Map 65813 – to allow the proposed development footprint within Area A.

Exhibit 3.1-10 (Circulation Plan) depicts vehicular access points and internal Project roadways which consist of a series of curvilinear connectors, local streets, rural streets, and traffic calming roundabouts. Primary access/egress to the Project will be via Avenue S, approximately 1.2 miles west of SR-14. Project development will include modification of the Avenue S median strip to place a left-turn lane and signal to the intersection. Secondary access will be the existing publicly dedicated Tovey Avenue. Project design will include a roundabout along Tovey Avenue to slow traffic leaving Quail Valley and to re-route such traffic away from the existing portion of Tovey Avenue.

The Project will include more than several miles of new trails within Area B and will provide connections to existing dirt roadways extending from the Project site in multiple directions. In addition, the Project will include a 3.2-acre QV HOA Recreation Center in the central portion of the Project that will be bounded by

the primary loop road. Also, the Project contains the 26.4-acre QV Public Park that will connect the developed areas of the Project, extend throughout the length of the developed portion of the Project site, and culminate at a trail connection at the southern edge of the Project.

Project development will necessitate grading that will be balanced on site.

Annexation

The Project site is not contiguous with the City of Palmdale's corporate boundary although the City owns Avenue S, which is directly adjacent to the Project site. The City of Palmdale is proposing to annex the entire Project site and adjacent surrounding parcels, all within the City's Sphere of Influence boundary. The inclusion of areas outside of the Project boundary (including the Falcon Glen project currently in process), establishes a block of area that is contiguous to the City of Palmdale's corporate boundary. The proposed annexation boundary currently includes 211 assessor parcels (53 parcels within the Project site and 158 additional parcels within unincorporated LA County) that occupy a total of approximately 1,310 acres.

Exhibit 2-3 (Annexation Boundary) depicts the proposed Annexation Boundary which includes not only Falcon Glen, a project in process with the City of Palmdale, but also other parcels bordering and near to the Quail Valley Project site. Non-Quail Valley parcels within the annexation area include vacant land and parcels with existing homes.

Exhibits 2-3A through 2-3D depict several potential annexation area boundary alternatives that LAFCO may consider in its deliberation about determination of the final Annexation area boundary, which mainly affect the northwest area bounding the existing City of Palmdale boundary and Project site boundary. **Exhibit 1-5 (Annexation Boundary)** in the Planned Development document and **Exhibit 2-3 (Annexation Boundary)** in this environmental impact report depict an Annexation area briefly analyzed in topical areas most relevant to LAFCO in this environmental impact report. A reduction in the Annexation area arising from LAFCO's final decision would necessarily result in fewer, or less substantial environmental impacts.

The annexation area includes the approximate 162.45-acre Falcon Glen project site, which is located in unincorporated Los Angeles County northerly of the Quail Valley Project site, across Avenue S. The Falcon Glen Assessor's Parcel Numbers are 3004-014-001, 004, 005, 008, 009, 012, 018, and 3004-014-023 through 031. The City has established pre-zoning for the Falcon Glen project site, as depicted on the City Zoning Map (June 29, 2023). The City also has established a General Plan Land Use designation and a pre-zoning designation of Single Family Residential 3 (SFR 3) for Falcon Glen. The zoning designation is intended for detached single-family subdivisions containing the City's standard 7,000 square foot minimum lot size, though other lot configurations are possible under the City's zoning code. These designations would allow a maximum 975 dwelling units for Falcon Glen. This number of dwelling units would yield approximately 3,510 new residents. The Falcon Glen project area is currently vacant land.

EIR Process

As an initial step in complying with CEQA procedural requirements for an EIR, an Initial Study was prepared by the City of Palmdale to determine whether any aspect of the Project, either individually or cumulatively, may cause a significant adverse effect on the physical environment. The Initial Study is contained in *Appendix A* to this document. For this Project, the Initial Study indicated this EIR should focus on the environmental topical areas listed above on pages 0-1 and 0-2. After completion of the Initial Study, the County filed a Notice of Preparation with the California Office of Planning and Research (State Clearinghouse) to indicate that an EIR would be prepared. The Initial Study and Notice of Preparation

were distributed for a 30-day public review.

0.2 AREAS OF CONTROVERSY AND ISSUES TO BE RESOLVED

CEQA Guidelines Section 15123(b)(2) requires that areas of controversy known to the Lead Agency (City of Palmdale) be identified in the Executive Summary. The Lead Agency has not identified any issues of controversy associated with the Project after consideration of all comments received in response to the Notice of Preparation. Notwithstanding, the Lead Agency has identified several issues of local concern including, but not limited to, potential impacts to Air Quality, Biological Resources, Cultural/Archaeological/Tribal Cultural Resources, Construction-Related Noise, Transportation, Utilities, and Wildfire.

Regarding issues to be resolved, this EIR addresses environmental issues known by the City that are identified in the Initial Study prepared for the Project and that were identified in the comment letters that the City of Palmdale received on this EIR's Notice of Preparation (reference *Appendix A*).

0.3 ALTERNATIVES TO THE PROJECT

In compliance with CEQA Guidelines Section 15126.6, an EIR must describe a range of reasonable alternatives to the Project or to the Project location. Each alternative must be able to feasibly attain most of the Project Objectives and avoid or substantially lessen the Project's significant impacts on the environment. A detailed description of each alternative evaluated in this EIR and an analysis of potential environmental impacts associated with each alternative is contained in EIR **Section 6.0 (*Project Alternatives*)**. In addition, **Section 6.0** identifies alternatives that were considered but rejected from further analysis.

No Development/No Project Alternative

The No Development/No Project Alternative considers no additional development on the Project site other than that which would occur under existing conditions. The entire approximately 878.1-acre Project site would remain vacant and undeveloped. Under this alternative, no improvements would be made on the Project site. Implementation of the No Development/No Project Alternative would result in no physical environmental impacts beyond those that historically have occurred on the Project site; that is, illegal off-road vehicle uses and wildfire. All significant effects of Project development and operation would be avoided or lessened by selection of this Alternative. The No Development/No Project Alternative would not meet Project Objectives.

Reduced Project Alternative

The Reduced Project Alternative would be comprised of 365 single-family dwelling units - a total of 50 percent of the proposed Project.

The Reduced Project Alternative would not result in additional impacts or greater levels of identified impacts in comparison to the proposed Project. The Reduced Project Alternative would result in reduced impacts related to the following: Air Quality; Biological Resources; Energy; Geology and Soils; Greenhouse Gas Emissions; Hydrology and Water Quality; Noise; Population and Housing; Public Services; Transportation; and, Utilities and Service Systems. This Project Alternative would result in

similar levels of impacts as the proposed Project pertaining to the following: Aesthetics; Agriculture and Forestry Resources; Cultural Resources; Hazards and Hazardous Materials; Land Use and Planning; Mineral Resources; Recreation; Tribal Cultural Resources; and, Wildfire.

The Reduced Project Alternative would reduce some Project impacts, some impacts may increase, and, some would remain substantially unchanged. The Reduced Project Alternative would not meet the Project Objectives.

0.4 SUMMARY OF IMPACTS, MITIGATION AND LEVELS OF IMPACTS

Table ES-1 provides a summary of Project impacts, summary of proposed Mitigation Measures, and level of significance of each impact following application of identified Mitigation Measures. The full text of the Mitigation Measures is contained in **Table ES-2**. Plans, Policies or Programs and Project Design Features were assumed and accounted for in assessment of impacts for each issue area described in **Table ES-3**.

Table ES-1 – Environmental Impacts and Mitigation Summary			
Issues/Impacts	Impact Level Before Mitigation?	Summary of Mitigation Measures	Impact Level After Mitigation?
Aesthetics			
<p>AES-1 – Have a substantial adverse effect on a scenic vista</p> <p>Project site is not located on a State-designated scenic highway. Views to Sierra Pelona Mountains/Ridgeline will be preserved. 395.1 acres of the 878.1-acre Project site to be left in their natural state as part of the Project. The Project site's significant natural landforms will be preserved from disturbance by use of landform preservation techniques. The proposed conservation of Area B retains in perpetuity the significant natural ridgeline on the property that forms much of the view from the City to the northern portions of the Sierra Pelona Mountains.</p>	Less Than Significant	No Mitigation Required	No Impact
<p>AES 2 – Substantially damage scenic resources, including, but not limited to trees, rock outcroppings, and historic buildings within a state scenic highway</p> <p>Project site is vacant, with trees, shrubs, rock outcroppings, and vegetation. Project site has been site of wildfires in past. Project vicinity has single-family residential uses. Quail Valley Project is designed to avoid impacting scenic resources such as Joshua trees and rock</p>	Less Than Significant	No Mitigation Required	No Impact

Table ES-1 – Environmental Impacts and Mitigation Summary

Issues/Impacts	Impact Level Before Mitigation?	Summary of Mitigation Measures	Impact Level After Mitigation?
outcroppings, the result level of impact of Project development would be less than significant. 395.1 acres of the 878.1-acre Project site to be preserved in natural state.			
<p>AES-3 – In non-urbanized areas, substantially degrade the existing visual character or quality of the site and its surroundings (Public views are those that are experienced from publicly accessible vantage points.) If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?</p> <p>Grading techniques, landscaping design, clustering of residential units within Area A, and preservation of Area B will combine to result in a less than significant impact related to degradation of the existing visual character and quality of the Project site and its surroundings.</p>	Less Than Significant	No Mitigation Required	Less than significant
<p>AES-4 – Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area</p> <p>During Project construction, short-term lighting used primarily for security purposes would</p>	Potentially Significant Impact	<p>MM-AES-1 – The Project developer shall install low-profile, low-intensity lighting directed downward to minimize light and glare. High-intensity outdoor lighting on individual homes and structures shall be prohibited.</p> <p>MM-AES-2 – The Project developer shall use shielded fixtures on lighting along residential streets, greenbelts</p>	Less than significant

Table ES-1 – Environmental Impacts and Mitigation Summary

Issues/Impacts	Impact Level Before Mitigation?	Summary of Mitigation Measures	Impact Level After Mitigation?
be introduced. Project operation would result in introduction of new permanent sources of light to Area development. Long-term light sources would include interior and exterior building lighting, street lighting, lights from vehicles, and open space night security lighting. Also, new residences within Area A would include surfaces such as windows, that reflect sunlight and thereby may cause glare throughout Area A. New light and glare within Area A would be apparent to residents and visitors in the surrounding area and would affect night-sky illumination.		and at the community facility to minimize glare produced by the lighting on the Project site. MM-AES-3 – Prior to issuance of a Building Permit, the Project developer shall submit a Project-wide Lighting Plan to the Planning Manager for approval. The Lighting Plan implementation elements may be phased in conjunction with the Project development phasing.	
Cumulative Impacts: Scenic vistas would not be completely obstructed from public roadways and adjacent land uses. Cumulative lighting-related impacts would be reduced by adherence to applicable City regulations and implementation of specified Mitigation Measures. Project development combined with the existing residences to the northwest, east and southeast of the Project site have no negative visual impacts to the Sierra Pelona Mountain ridgelines or to the views of the surrounding hillsides from adjacent and nearby scenic highways or scenic	Potentially Significant Impact	MM-AES-1 MM-AES-2 MM-AES-3	Less than significant

Table ES-1 – Environmental Impacts and Mitigation Summary

Issues/Impacts	Impact Level Before Mitigation?	Summary of Mitigation Measures	Impact Level After Mitigation?
<p>corridors. However, adding 730 residential units as part of the 878.1-acre Quail Valley Project to the existing residences in the Project vicinity would cumulatively be a potentially significant impact resulting from added Project street and security lighting and from Project residents' vehicles and service vehicles. Compliance with City of Palmdale regulations pertaining to prohibiting a project's light and glare to that project, thereby avoiding impacting neighboring residential properties (such as those to the north, northwest, east, and southeast of the Project site) will ensure the Project's contribution to cumulative impacts from light and glare will be less than significant. The cumulative impact related to views to the Quail Valley community from neighboring public roadways would be less than significant in the area because, as demonstrated in the Visual Analysis contained in the Appendices to the Planned Development Plan text, the scenic views to the Sierra Pelona Mountains and higher elevations within the Project vicinity would be left in their natural condition as part of the Project.</p>			
Agriculture and Forestry Resources			
AG-1 – Convert Prime Farmland, Unique Farmland, or Farmland of Statewide importance	No Impact	No Mitigation Required	No Impact

Table ES-1 – Environmental Impacts and Mitigation Summary

Issues/Impacts	Impact Level Before Mitigation?	Summary of Mitigation Measures	Impact Level After Mitigation?
<p>(Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use.</p> <p>The Project site is not designated as Farmland on any database.</p>			
<p>AG-2 – Conflict with existing zoning for agricultural use, or a Williamson Act contract.</p> <p>The Project site is not designated with Agricultural Zoning or subject to a Williamson Act contract.</p>	No Impact	No Mitigation Required	No Impact
<p>AG-3 – Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 511045(g)).</p> <p>The Project site is not designated as Forest Land on any database.</p>	No Impact	No Mitigation Required	No Impact
<p>AG-4 – Result in the loss of forest land or conversion of forest land to non-forest use.</p> <p>The Project site is not designated as Forest Land on any database.</p>	No Impact	No Mitigation Required	No Impact
<p>AG-5 – Involve other changes in the existing</p>	No Impact	No Mitigation Required	No Impact

Table ES-1 – Environmental Impacts and Mitigation Summary

Issues/Impacts	Impact Level Before Mitigation?	Summary of Mitigation Measures	Impact Level After Mitigation?
<p>environment which 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.</p> <p>Other Changes Resulting in Conversion of Farmland to Non-Agricultural Use:</p> <p>The Project site is not designated as Farmland on any database.</p>			
<p>Cumulative Impacts: Project development, in combination with identified Projects and potential Projects within 2 miles of the Project site, would not result in any impacts to land designated for agricultural or forestry use.</p>	No Impact	No Mitigation Required	No Impact
Air Quality			
<p>AQ-1 – Conflict with or obstruct implementation of the applicable Air Quality Plan.</p> <p>The Air Quality Impact Analysis prepared for the Project indicated that total operational emissions by Project Activity – Daily Emissions (pounds/day) will be below AVAQMD significance thresholds. Therefore, the Project would result in a less than significant regional air quality impact.</p>	Less than Significant Impact	No Mitigation is required.	Less than Significant Impact
<p>AQ-2 – Result in a cumulatively considerable net increase</p>	Significant and Unavoidable Impact	MM-AQ-1: Comply with AVAQMD	Significant and Unavoidable Impact

Table ES-1 – Environmental Impacts and Mitigation Summary

Issues/Impacts	Impact Level Before Mitigation?	Summary of Mitigation Measures	Impact Level After Mitigation?
<p>of any criterial pollutant for which the project region is non-attainment under an applicable Federal or State ambient air quality standard.</p> <p>Project <u>short-term impacts</u> associated with Project grading would result in a Significant and Unavoidable Impact pertaining to generation of Nitrogen Oxides in an amount that will exceed the Antelope Valley Air Quality Management District Thresholds of Significance.</p>		<p>The Air Quality Assessment prepared for the Project stipulates the following Mitigation Measures must be implemented to address Project impacts to Air Quality.</p> <p><i>Particulate Emission (PM₁₀ Control</i></p> <p>Rule 403 requires that “Large Projects” implement additional mitigation. A “Large Project” is defined as “any active operations on property which contains 50 or more acres of disturbed surface area; or any earth-moving operation with a daily earth-moving or throughput volume of 3,850 cubic meters (5,000 cubic yards) for more than three times during the most recent 365-day period. Therefore, the Project is considered a “Large Project” under Rule 403. In addition to the applicable actions specified in the following Table 4.3-9 (Dust Control Measures for Large Operations), as a “Large Project,” the Project will be required to implement the following:</p> <ul style="list-style-type: none"> • Submit a fully executed Large Operation Notification to the AVQMD Executive Officer within seven days of qualifying as a large operation; • Include, as part of the notification, the name(s), address(es), and telephone number(s) of the person(s) responsible for the submittal, and a description of the operation(s), including a map depicting the location of the site; • Maintain daily records to document the specific dust control actions taken, maintain such records for a period of not less than three years and make such records 	

Table ES-1 – Environmental Impacts and Mitigation Summary

Issues/Impacts	Impact Level Before Mitigation?	Summary of Mitigation Measures	Impact Level After Mitigation?
		<p>available to the Executive Officer upon request;</p> <ul style="list-style-type: none"> • Install and maintain project signage with project contact signage that meets the minimum standards of the Rule 403 Implementation Handbook, prior to initiating any earthmoving activities; • Identify a dust control supervisor that is employed by or contracted with the property owner or developer, is on the site or available on-site within 30 minutes during working hours, has the authority to expeditiously employ sufficient dust mitigation measures to ensure compliance with all Rule requirements, and has completed the AQMD Fugitive Dust Control Class and has been issued a valid Certificate of Completion for the class; and, • Notify the AVAQMD Executive Officer in writing within 30 days after the site no longer qualifies as a large operation. <p>The following Table 4.3-8 (Required Best Available Control Measures, Rule 403, Table 1)) presents best applicable control measures that shall be used to minimize fugitive dust emissions from each fugitive dust sourced type within the active operation. Carb = California Air Resources Board.</p> <p>CARB #24.b – Fugitive Dust. Construction Earthmoving: b) Prohibits VDE beyond property line and an upwind/downwind PM₁₀ differential of more than 50 µg/m³.</p>	

Table ES-1 – Environmental Impacts and Mitigation Summary

Issues/Impacts	Impact Level Before Mitigation?	Summary of Mitigation Measures	Impact Level After Mitigation?
		<p>Requires implementation of Best Available Control Measures (BACM) for all sources such that visible emissions do not exceed this limit 100 feet from the point of origin of earth-moving activities. List of BACM is contained in the Rule 403 Implementation Handbook. Specifies that a Dust Control Plan or a commitment to implement Table 1 and 2 control measures through a large operation notification (LON) is required for large operations project with a disturbed surface area 100 acres or larger, or projects with daily earth movement of 10,000 cubic yards or more.</p> <p>CARB #25.b – Fugitive Dust. Construction: Demolition: b) Prohibits VDE beyond property line. Requires application of BACM. Specified that upwind-downwind PM₁₀ levels must not exceed 50 µg/m³. Sets track-out requirements.</p> <p>CARB #26 b – Fugitive Dust. Construction: Grading Operations: b) Requires water application to increase moisture content to proposed cut, and grading each phase separately to coincide with the construction phase. Specifies that chemical stabilizers are to be applied to graded areas where construction will not begin for more than 60 days after grading.</p> <p>CARB #27 b – Fugitive Dust. Inactive Disturbed Land: b) Prohibits VDE beyond property line and an upwind/downwind PM₁₀ differential of more than 50 µg/m³. Requires BACM (e.g., chemical stabilization, frequent watering, and revegetation) at all times and high wind measures (e.g., chemical stabilization to maintain a stabilized surface or watering three times per day) under high wind conditions.</p>	

Table ES-1 – Environmental Impacts and Mitigation Summary

Issues/Impacts	Impact Level Before Mitigation?	Summary of Mitigation Measures	Impact Level After Mitigation?
		<p>CARB #28 b – Fugitive Dust. Bulk Materials: Handling/Storage: b) Prohibits VDE beyond property line and an upwind/downwind PM₁₀ differential of more than 50 µg/m³. Requires use of BACM (e.g., wind sheltering, watering, chemical stabilizers, altering load-in/load-out procedures, or coverings).</p> <p>CARB #30 b – Fugitive Dust. Carryout and Track-out: b) Requires removing any track-out within one hour, or selecting a Table 3 track-out prevention option and removing track-out at the end of the workday, if the track-out is less than 50 feet, and removing track-out as soon as possible, if it exceeds 50 feet. Table 3 track-out options include road surface paved or chemically stabilized from point of intersection with a public paved road to distance of at least 100 feet by 20 feet, or installation of track-out control device from point of intersection with a public paved road to a distance of at least 25 feet by 20 feet.</p> <p>CARB #32 b – Fugitive Dust. Disturbed Open Areas: b) Applies to non-agricultural areas of one-half acre or larger for residential use, and all non-residential areas. Requires application of chemical stabilizers; watering with sufficient frequency to establish a surface crust, or establishing drought-resistant vegetation as quickly as possible.</p> <p>CARB #38 b – Fugitive Dust. Weed Abatement Activities: b) Specifies weed abatement activities are subject to standards of Rule 403, unless 1) mowing or cutting is used, instead of discing, and stubble is maintained at least three inches above the soil, or 2) if discing is used, there is a determination of a potential fire hazard. Specifies that after discing, the requirement for taking action on</p>	

Table ES-1 – Environmental Impacts and Mitigation Summary

Issues/Impacts	Impact Level Before Mitigation?	Summary of Mitigation Measures	Impact Level After Mitigation?
		<p>disturbed surface areas applies.</p> <p>CARB #39 – Fugitive Dust. Windblown Dust: Definitions: Defines windblown dust as any visible emissions from any disturbed surface area which is generated by wind action along. Specifies wind gusts as maximum instantaneous wind speed.</p> <p>CARB #40 – Fugitive Dust. Windblown Dust: Construction/Earth Moving: Requires, for earthmoving, ceasing all active operations, applying water to soil not more than 15 minutes prior to moving such soil if subject to large operation requirements or if seeking an exemption from property line or upwind/downwind standard. Requires, for unpaved roads at construction sites, applying chemical stabilizers prior to a wind event, applying water twice per hour during active operations, stopping all vehicular traffic if subject to large operation requirements or if seeking an exemption from property line or upwind/downwind standard.</p> <p>CARB #42.a – Fugitive Dust. Bulk Materials/Storage Piles: a) Requires application of water twice per hour or installation of temporary coverings if subject to large operation requirements or if seeking an exemption from property line or upwind/downwind standard.</p> <p>Rule 403 further requires that “Large Projects” implement additional mitigation. A “Large Project” is defined as “any active operations on property which contains 50 or more acres of disturbed</p> <p>surface area; or any earth-moving operation with a daily earth-moving or throughput volume of 3,850 cubic meters (5,000 cubic yards) for more</p>	

Table ES-1 – Environmental Impacts and Mitigation Summary

Issues/Impacts	Impact Level Before Mitigation?	Summary of Mitigation Measures	Impact Level After Mitigation?
		<p>than three times during the most recent 365-day period. Therefore, the Project is considered a “Large Project” under Rule 403. In addition to the following applicable actions as a “Large Project” the Project will be required to implement the following:</p> <ul style="list-style-type: none"> • Submit a fully executed Large Operation Notification to the AVQMD Executive Officer within seven days of qualifying as a large operation; • Include, as part of the notification, the name(s), address(es), and telephone number(s) of the person(s) responsible for the submittal, and a description of the operation(s), including a map depicting the location of the site; • Maintain daily records to document the specific dust control actions taken, maintain such records for a period of not less than three years and make such records available to the Executive Officer upon request; • Install and maintain project signage with project contact signage that meets the minimum standards of the Rule 403 Implementation Handbook, prior to initiating any earthmoving activities; • Identify a dust control supervisor that is employed by or contracted with the property owner or developer, is on the site or available on-site within 30 minutes during working hours, has the authority to expeditiously employ 	

Table ES-1 – Environmental Impacts and Mitigation Summary

Issues/Impacts	Impact Level Before Mitigation?	Summary of Mitigation Measures	Impact Level After Mitigation?
		<p>sufficient dust mitigation measures to ensure compliance with all Rule requirements, and has completed the AQMD Fugitive Dust Control Class and has been issued a valid Certificate of Completion for the class; and,</p> <ul style="list-style-type: none"> • Notify the AVAQMD Executive Officer in writing within 30 days after the site no longer qualifies as a large operation. <p>Additionally, Rule 403 requires that construction activities “shall not cause or allow PM₁₀ levels [to] exceed 50 micrograms per cubic meter when determined by simultaneous sampling, as the difference between upwind and downwind sample.” Large Projects that cannot meet this performance standard are required to implement applicable actions from Rule 403 that are presented below [as expressed in the DEIR] in Table 4.3-9. (Dust Control Measures for Large Operations)I</p> <p>Earth-moving (except cutting and filling areas, and mining operations) –</p> <p>(1a) Maintain soil moisture content at a minimum of 12 percent, as determined by ASTM method D2216, or other equivalent method approved by the Executive Officer, the California Air Resources Board, and the U. S. EPA. Two soil moisture evaluations must be conducted during the first three hours of active operations during a calendar day, and two such evaluations each subsequent four-period of active operations; OR (1a-1) For any earth-moving which is more than 100 feet from all property lines, conduct watering as necessary</p>	

Table ES-1 – Environmental Impacts and Mitigation Summary

Issues/Impacts	Impact Level Before Mitigation?	Summary of Mitigation Measures	Impact Level After Mitigation?
		<p>to prevent visible dust emissions from exceeding 100 feet in length in any direction.</p> <p>Earth-moving: Construction fill areas – (1b) Maintain soil moisture content at a minimum of 12 percent, as determined by ATM method D2216, or other equivalent method approved by the Executive Officer, the California Air Resources Board, and the U. S. EPA. For areas which have an optimum moisture content for compaction of less than 12 percent, as determined by ASTM Method 1557 or other equivalent method approved by the Executive Officer and the California Air Resources Board and the U. S. EPA, complete the compaction process as expeditiously as possible after achieving at least 70 percent of the optimum soil moisture content. Two soil moisture evaluations must be conducted during the first three hours of active operations during a calendar day, and two such evaluations during each subsequent four-hour period of active operations.</p> <p>Earth-moving: Construction cut areas and mining operations – (1c) Conduct watering as necessary to prevent visible emissions from extending more than 100 feet beyond the active cut or mining area unless the area is inaccessible to watering vehicles due to slope conditions or other safety factors.</p> <p>Disturbed surface areas (except completed grading areas) – (2a b) Apply dust suppression in sufficient quantity and frequency to maintain a stabilized surface. Any areas which cannot be stabilized, as evidenced by wind driven fugitive dust must have an application of water at least twice per day to at least 80 percent of the unstabilized area.</p>	

Table ES-1 – Environmental Impacts and Mitigation Summary

Issues/Impacts	Impact Level Before Mitigation?	Summary of Mitigation Measures	Impact Level After Mitigation?
		<p>Disturbed surface areas:</p> <p>Completed grading areas – (2c) Apply chemical stabilizers within five working days of grading completion, OR (2d) Take actions (3a) or (3c) specified for inactive disturbed surface areas</p> <p>Inactive disturbed surface areas – (3a) Apply water to at least 80 percent of all inactive disturbed surface areas on a daily basis when there is evidence of wind driven fugitive dust, excluding any areas which are inaccessible to watering vehicles due to excessive slope or other safety conditions; OR (3b) Apply dust suppressants in sufficient quantity and frequency to maintain a stabilized surface; OR (3C) Establish a vegetative ground cover within 21 days after active operations have ceased. Ground cover must be of sufficient density to expose less than 30 percent of unstabilized ground within 90 days of planting, and at all times thereafter; OR (3d) Utilize any combination of control actions (3a), (3b), and 3c) such that in total, these actions apply to all inactive disturbed surface areas.</p> <p>Unpaved Roads: (4a) Water all roads used for any vehicular traffic at least once per every two hours of active operations (3 times per normal 8-hour work day); OR (4b) Water all roads used for any vehicular traffic once daily and restrict vehicle speeds to 15 miles per hour; OR (4c) Apply a chemical stabilizer to all unpaved road surfaces in sufficient quantity and frequency to maintain a stabilized surface.</p> <p>Open storage piles – (5a) Apply chemical stabilizers; OR (5b) Apply water to at least 80</p>	

Table ES-1 – Environmental Impacts and Mitigation Summary

Issues/Impacts	Impact Level Before Mitigation?	Summary of Mitigation Measures	Impact Level After Mitigation?
		<p>percent of the surface area of all open storage piles on a daily basis when there is evidence of wind driven fugitive dust; OR</p> <p>(5c) Install temporary coverings; OR</p> <p>(5d) Install a three-sided enclosure with walls with no more than 50 percent porosity which extend, at a minimum, to the top of the pile. This option may only be used at aggregate-related plants or at cement manufacturing facilities.</p> <p>All Categories – (6a) Any other control measures approved by the Executive Officer and the U.S. EPA as equivalent to the methods specified in Table 2 may be used.</p> <p>MM-AQ-2 – Comply with Contingency Control Measures. The Project shall implement all applicable measures presented in DEIR Table 4.3.10 Contingency Control Measures for Large Operations (contained in the Air Quality Section of this document), regardless of conformance with the Rule 403 performance standard.</p> <p>Earth-moving – (1A) Cease all active operations; OR</p> <p>(2A) Apply water to soil not more than 15 minutes prior to moving such soil.</p> <p>Disturbed Surface Areas – (0B) On the last day of active operations prior to a weekend, holiday, or any other period when active operations will not occur for not more than four consecutive days: apply water with a mixture of chemical stabilizer diluted to not less than 1/20 of the concentration required to maintain a stabilized surface for a period of six months; OR</p> <p>(1B) Apply chemical stabilizers prior to wind event; OR</p> <p>(2B) Apply water to all unstabilized disturbed areas 3 times per day. If</p>	

Table ES-1 – Environmental Impacts and Mitigation Summary

Issues/Impacts	Impact Level Before Mitigation?	Summary of Mitigation Measures	Impact Level After Mitigation?
		<p>there is any evidence of wind driven fugitive dust, watering frequency is increased to a minimum of four times per day; OR</p> <p>(3B) Take the actions specified in Table 2, Item (3c); OR</p> <p>(4B) Utilize any combination of control actions (1B), (2B), and (3B) such that, in total, these actions apply to all disturbed surface areas.</p> <p>Unpaved Roads – (1c) Apply chemical stabilizers prior to wind event; OR</p> <p>(2C) Apply water twice per hour during active operation; OR</p> <p>(3c) Stop all vehicular traffic.</p> <p>Open Storage Piles – (1D) Apply water twice per hour; OR</p> <p>(2D) Install temporary coverings.</p> <p>Paved Road Track-Out – (1E) Cover all haul vehicles; OR</p> <p>(2E) Comply with the vehicle freeboard requirements of Section 23114 of the California Vehicle Code for both public and private roads.</p> <p>All Categories – (1F) Any other control measures approved by the Executive Officer and the U.S. EPA as equivalent to the methods specified in Table 3 may be used.</p> <p>Further, Rule 403 requires that a project shall not “allow track-out to exceed 25 feet or more in cumulative length from the point of origin from an active operation.” If the project requires track-out from an active operation, it is required to be removed at the conclusion of each workday or evening shift. Any active operation with a disturbed surface area of five or more acres, or with a daily import or export of 100 cubic yards or more of bulk materials must utilize at least one of the measures listed in the following Table 4.3.11 (Track Out control Options) [as</p>	

Table ES-1 – Environmental Impacts and Mitigation Summary

Issues/Impacts	Impact Level Before Mitigation?	Summary of Mitigation Measures	Impact Level After Mitigation?
		<p>presented in the DEIR], at each vehicle egress from the Project site to a paved public road.</p> <p>Track Out Control Options</p> <p>(A) Install a pad consisting of washed gravel (minimum-size one inch) maintained in a clean condition to a depth of at least six inches and extending at least 20 feet wide and 50 feet long.</p> <p>(B) Pave the surface extending at least 100 feet and a width of at least 20 feet.</p> <p>(C) Utilize a wheel shaker-wheel spreading device consisting of raised dividers (rails, pipe, or grates) at least 24 feet long and 10 feet wide to remove bulk material from tires and vehicle undercarriages before vehicles exit the site.</p> <p>(D) Install and utilize a wheel washing system to remove bulk material from tires and vehicle undercarriage before vehicles exit the site.</p> <p>(E) Any other control measures approved by the Executive Officer and the U. S. EPA as equivalent to the methods specified items (a) through (D) above.</p> <p>The following Mitigation Measure addresses other pollutants generated by construction equipment (due to engine combustion in equipment and employee commuting) that will also exceed AVAQM thresholds.</p> <p>MM-AQ-3 – Reduce Construction Equipment Emissions. The following should be included in grading and improvement plans specifications for implementation by contractors:</p> <ul style="list-style-type: none"> • Use low emission mobile construction equipment to the extent reasonable 	

Table ES-1 – Environmental Impacts and Mitigation Summary

Issues/Impacts	Impact Level Before Mitigation?	Summary of Mitigation Measures	Impact Level After Mitigation?
		<p>available. The property owner/developer shall comply with California Air Resources Board requirements for heavy construction equipment.</p> <ul style="list-style-type: none"> • Maintain construction equipment engines by keeping them tuned. • Use low sulfur fuel for stationary construction equipment. • Utilize existing power sources (i.e., power poles) when available. This measure would minimize the use of higher polluting gas or diesel generators. • Configure construction parking to minimize traffic interference. • Minimize obstruction of through-traffic lanes. Construction should be planned so that lane closures on existing streets are kept to a minimum. • Schedule construction operations affecting traffic for off-peak hours to the best extent when possible. <p>Develop a traffic plan to minimize traffic flow interference from construction activities (the plan may include advance public notice of routing, use of public transportation and satellite parking areas with a shuttle service).</p> <p>MM-AQ-2: The Project shall implement all the following applicable measures presented (Contingency Control Measures for Large Operations), regardless of conformance with the Rule 403 performance standard.</p> <p>Fugitive Dust Source Category – Earth Moving: Control Action 1A – Cease all active operations; or, apply water to soil not more</p>	

Table ES-1 – Environmental Impacts and Mitigation Summary

Issues/Impacts	Impact Level Before Mitigation?	Summary of Mitigation Measures	Impact Level After Mitigation?
		<p>than 15 minutes prior to moving such soil.</p> <p>Disturbed Surface Areas (0B) On the last day of active operations prior to a weekend, holiday, or any other period when active operations will not occur for not more than four consecutive days: apply water with a mixture of chemical stabilizer diluted to not less than 1/20 of the concentration required to maintain a stabilized surface for a period of six months; OR (1B) Apply chemical stabilizers prior to wind event; OR (2B) Apply water to all unstabilized disturbed areas 3 times per day. If there is any evidence of wind driven fugitive dust, watering frequency is increased to a minimum of four times per day; OR (3B) Take the actions specified in Table 2, Item (3c); OR (4B) Utilize any combination of control actions (1B), (2B), and (3B) such that, in total, these actions apply to all disturbed surface areas.</p> <p>Unpaved Roads (1C) Apply chemical stabilizers prior to wind event; OR (2C) Apply water twice per hour during active operation; OR (3C) Stop all vehicular traffic.</p> <p>Open Storage Piles (1D) Apply water twice per hour; OR (2D) Install temporary coverings.</p> <p>Paved Road Track-Out (1E) Cover all haul vehicles; OR (2E) Comply with the vehicle freeboard requirements of Section 23114 of the California Vehicle Code for both public and private roads.</p> <p>All Categories</p>	

Table ES-1 – Environmental Impacts and Mitigation Summary

Issues/Impacts	Impact Level Before Mitigation?	Summary of Mitigation Measures	Impact Level After Mitigation?
		<p>(1F) Any other control measures approved by the Executive Officer and the U. S. EPA as equivalent to the methods specified in Table 3 may be used.</p> <p>Further, Rule 403 requires that a project shall not “allow track-out to extend 25 feet or more in cumulative length from the point of origin from an active operation.” If the project requires track-out from an active operation, it is required to be removed at the conclusion of each workday or evening shift. Any active operation with a disturbed surface area of five or more acres, or with a daily import or export of 100 cubic yards or more of bulk materials must utilize at least one of the following measures listed at each vehicle egress from the Project site to a paved public road.</p> <p>(A) Install a pad consisting of washed gravel (minimum-size one inch) maintained in a clean condition to a depth of at least six inches and extending at least 20 feet wide and 50 feet long.</p> <p>(B) Pave the surface extending at least 100 feet and a width of at least 20 feet.</p> <p>(C) Utilize a wheel shaker/wheel spreading device consisting of raised dividers (rails, pipe, or grates) at least 24 feet long and 10 feet wide to remove bulk material from tires and vehicle under carriages before vehicles exit the site.</p> <p>(D) Install and utilize a wheel washing system to remove bulk material from tires and vehicle undercarriages before vehicles exit the site.</p> <p>(E) Any other control measures approved by the Executive Officer and the U. S. EPA as equivalent to the methods specified items (a) through (D)</p>	

Table ES-1 – Environmental Impacts and Mitigation Summary

Issues/Impacts	Impact Level Before Mitigation?	Summary of Mitigation Measures	Impact Level After Mitigation?
		<p>above.</p> <p><i>Construction Equipment Emission Control</i></p> <p>MM-AQ-3 Reduce Construction Equipment Emissions The Following Mitigation Measure addresses other pollutants generated by construction equipment (due to engine combustion in equipment and employee commuting) that will also exceed AVAQMD thresholds. The following should be included in grading and improvement plans specifications for implementation by contractors:</p> <ul style="list-style-type: none"> • Use low emission mobile construction equipment to the extent reasonable available. The property owner/developer shall comply with California Air Resources Board requirements for heavy construction equipment; • Maintain construction equipment engines by keeping them tuned; • Use low sulfur fuel for stationary construction equipment; • Utilize existing power sources (i.e., power poles) when available. This measure would minimize use of higher polluting gas or diesel generators; • Configure construction parking to minimize traffic interference; • Minimize obstruction of through-traffic lanes. Construction should be planned so that lane closures on existing streets are kept to a minimum; • Schedule construction operations affecting traffic for off-peak hours to the best extent when possible; and, 	

Table ES-1 – Environmental Impacts and Mitigation Summary

Issues/Impacts	Impact Level Before Mitigation?	Summary of Mitigation Measures	Impact Level After Mitigation?
		Develop a traffic plan to minimize traffic flow interference from construction activities (the plan may include advance public notice of routing, use of public transportation and satellite parking areas with a shuttle service).	
AQ-3 – Exposure of Sensitive Receptors to Substantial Pollutant Concentration: Project <u>short-term impacts</u> associated with Project grading would result in a Significant and Unavoidable Impact pertaining to generation of Nitrogen Oxides in an amount that will exceed the Antelope Valley Air Quality Management District Thresholds of Significance.	Significant and Unavoidable	No Mitigation Measures Required	Significant and Unavoidable
AQ-4 – Other Emissions (such as those leading to odors) that Adversely Affect People Project construction will include activities and machinery typically associated with emitting objectional odors. Potential odor sources associated with the Project may result from construction equipment exhaust and application of asphalt and architectural coatings during construction activities and temporary storage of typical solid waste. Standard requirements would minimize odor impacts from construction. Construction-related odor emissions would be	Less than Significant Impact	No Mitigation Measures Required	Less than Significant Impact

Table ES-1 – Environmental Impacts and Mitigation Summary

Issues/Impacts	Impact Level Before Mitigation?	Summary of Mitigation Measures	Impact Level After Mitigation?
<p>temporary, short-term, and intermittent in nature and would cease upon completion of the respective phase of construction.</p> <p>After Project build out, it is expected that Project-generated refuse would be stored in covered containers and removed at regular intervals in compliance with County of Los Angeles solid waste regulations. The Project would also be required to comply with AVAQMD Rule 402 to prevent public nuisances.</p>			
<p>Cumulative Impacts: The Air Quality Assessment prepared for the Project indicates that Project development (grading) source emissions would be considered significant and unavoidable on a Project-specific and Cumulative basis, related to generation of Nitrogen Oxides in an amount that will exceed the AVAQMD Thresholds of Significance. Project operational-source air pollutant emissions cumulatively do not have the potential to result in exceedance of regional AVAQMD Thresholds and therefore do not result in a cumulatively considerable impact.</p>	Significant and Unavoidable Impact	Same Mitigation Measures as those identified above; that is, MM-AQ-1, MM-AQ-2, and MM-AQ-3.	Significant and Unavoidable Impact
Biological Resources			
BIO-1 – Substantial Adverse Effect on Candidate, Sensitive or Special Status Species	Potentially Significant Impact	MM-BIO-1 – The Project developer shall not further subdivide for development 395 acres (45 percent of the site) of natural habitat areas on the	Less Than Significant Impact

Table ES-1 – Environmental Impacts and Mitigation Summary

Issues/Impacts	Impact Level Before Mitigation?	Summary of Mitigation Measures	Impact Level After Mitigation?
<p>identified in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or United States Fish and Wildlife Service</p> <p>Project development would result in permanently grading, compacting and altering approximately 460 acres of habitat that would have a direct negative effect on both common and regulatory status animals. The Biological Resources Assessment prepared for the Project and Project site lists those species determined to have at least a moderate potential of occurrence within the altered habitats. impacts to habitat that supports</p>		<p>subject property. The Project developer shall avoid grading or otherwise modifying the natural habitats on-site that are designated for avoidance. Minor modification to the acreage (not to exceed 5 percent) will be allowed based on final engineering and mapping constraints, subject to the review and approval of the City Engineer, or equivalent, or his/her designee. The open space acres shall be owned by the Homeowners Association and protected from future development via provisions in the CC&Rs and also via deed restrictions. The intent is to ensure the avoided area remains as an open space component of the Project in perpetuity. The Developer or the Homeowners Association (HOA) may offer all or a portion of the open space property to a conservancy at some future date, but due in part to the complexity of conditions and rights contained in the existing easements, and the need for the OA</p>	
<p>BIO-2 – Substantial Adverse Effect on Riparian Habitat or Other Sensitive Natural Community identified in local or regional plans, policies, regulations or by the California Department of Fish and Wildlife or United States Fish and Wildlife Service</p> <p>Project development would result in loss of 9,032 linear feet of “streambed” (0.45 acres of California Department of Fish and Wildlife jurisdiction), which will require a California Fish and Game (Wildlife) Code Section 1602 Streambed Alteration Agreement. Approximately 450 acres</p>	Potentially Significant Impact	<p>or others to be able to access, repair, improve or maintain various roadways, drainage and other facilities, dedication is not a requirement.</p> <p>MM-BIO-2 – Deed restrictions shall be recorded in phases, in conjunction with Project development phasing to coordinate and align density transfer allocations with the concurrent deed restriction allocations to balance density transfers with protecting correlated avoided acreage (for instance, by adjacency), subject to the review and approval of the Planning Manager, or equivalent, or his/her designee.</p> <p>MM-BIO-3 – Prior to issuance of Grading Permit, the Project Applicant/Developer(s) shall comply with all provisions of the City of Palmdale Municipal Code Chapter 14.04, Native Vegetation Preservation, and the Desert</p>	Less Than Significant Impact

Table ES-1 – Environmental Impacts and Mitigation Summary

Issues/Impacts	Impact Level Before Mitigation?	Summary of Mitigation Measures	Impact Level After Mitigation?
<p>of Area A would be graded during Project development. This grading will result in removal of 235 Joshua trees and 227 Joshua tree seedlings. In addition, approximately 34 acres of Joshua Tree Habitat Buffer will be impacted by Project development. On June 27, 2023, the California Legislature passed the “Western Joshua Tree Conservation Act.” This legislation permanently protects this species by providing the trees with protections comparable to those they would receive under the California Endangered Species Act, but with additional permitting mechanisms to address renewable energy and housing projects in their range. The law also requires the California Department of Fish and Wildlife to prepare a conservation plan for the trees by end of year 2024.</p>		<p>Vegetation Preservation Plan prepared for the Project, including if required, obtaining a Native Vegetation Removal Permit issued by the City Landscape Architect or by the Director of Public Works’ designee.</p> <p>MM-BIO-4 – If Joshua Trees remain as a Candidate Species indefinitely or should Joshua Trees be listed as Endangered/Threatened, an Incidental Take Permit or other waiver shall be required by California Department of Fish and Wildlife. Evidence of compliance with this Mitigation Measure (and Condition of Approval) shall be submitted to the City of Palmdale prior to realizing any effects to Joshua Trees on the Project site.</p> <p>MM-BIO-5 – A Trails Alignment and Management Plan shall be submitted to the City of Palmdale Planning Manager for review and approval. The Plan shall delineate the trail alignment on topographic mapping suitable for planning purposes and shall prescribe management goals, trail design and alignment, and activities for proper trail maintenance. The Plan shall include specific citations to be included in the Project CC&Rs regarding the limitations placed on motorized vehicles to control motorized vehicle entry into avoided areas of the Quail Valley Project. Restrictions shall not apply to existing easement holders, in-holding parcel owners, and others with an existing right to use or pass through the property.</p> <p>MM-BIO-6– To offset potential effects of trail development, all work to establish the semi-improved trails connecting existing dirt roadways within Area A surrounding the</p>	
<p>Bio-3 – Substantial Adverse Effect on Federally Protected Wetlands as defined by Clean Water Act Section 404 through direct removal, filling, hydrological interruption, or other means:</p> <p>There are no “waters” of the United States on the Project site. There are four drainage systems on the Project site and approximately 0.6-acre of potential Regional Water</p>	Less Than Significant Impact		Less Than Significant Impact

Table ES-1 – Environmental Impacts and Mitigation Summary

Issues/Impacts	Impact Level Before Mitigation?	Summary of Mitigation Measures	Impact Level After Mitigation?
Quality Control Board jurisdiction area on the Project site. The California Porter-Cologne Water Quality Act requires that any entity that discharges “waste” into waters of the State has the obligation to obtain a Waste Discharge Permit. Project development impacts are not expected to be potentially significant with implementation of water quality control mitigation measures routinely required by the City and any specific requirements contained in the Water Discharge Permit that the Project developer(s) would obtain. In addition, Project development and operation will not adversely affect federally protected wetlands.		<p>Project development footprint shall be constructed by a trail contractor familiar with trail construction utilizing Best Management Practices to avoid poor switchback design, and trail-related erosion conditions. The qualified Project Biologist shall accompany any equipment operating in hillside areas. The contractor and Project Biologist shall coordinate design and operations to minimize potential impacts to Biological Resources.</p> <p>MM-BIO-7 – To offset impacts to California Department of Fish and Wildlife-jurisdictional “streambeds” and Regional Water Quality Control Board-jurisdiction “waters,” the Project Developer(s) shall obtain regulatory authorizations or waivers from the California Department of Fish and Wildlife and the Regional Water Quality Control Board and provide those authorizations to the City of Palmdale prior to issuance of Grading Permits.</p>	
<p>BIO-4 – Interference substantially with Movement of Native Resident or Migratory Fish, Wildlife Species, or Wildlife Corridors</p> <p>The Project, because the Planned Development Plan depicts avoidance of 395.1 acres of natural habitats on-site, is expected to generate a less than significant impact to regional wildlife connectivity and genetic transmission.</p>	Less Than Significant Impact	<p>MM-BIO-8 – To offset impacts to short-joint beavertail (<i>Opuntia basilaris</i> var. <i>bracycada</i>), specimens located within the Project’s clearing and grading footprint would be salvaged by a qualified consultant from the site prior to grading and replanted elsewhere on-site to establish plantings as near as possible to the natural condition. All new trail areas outside the development footprint that are approved for the Project shall avoid all <i>Opuntia basilaris</i> var. <i>brachyclada</i> to the extent reasonably possible on the Quail Valley property.</p>	Less Than Significant Impact
<p>BIO-5 –Conflict with Local Policies or Ordinances Protecting Biological Resources</p> <p>Approximately 450 acres</p>	Less Than Significant Impact	<p>MM-BIO-9 – Prior to issuance of a Grading Permit, the Project developer(s) shall create potential bat roosting habitat by installing up to three bat roosting structures in</p>	Less Than Significant Impact

Table ES-1 – Environmental Impacts and Mitigation Summary

Issues/Impacts	Impact Level Before Mitigation?	Summary of Mitigation Measures	Impact Level After Mitigation?
of Area A would be graded during Project development. This grading will result in removal of 235 Joshua trees and 227 Joshua tree seedlings. In addition, approximately 34 acres of Joshua Tree Habitat Buffer will be impacted by Project development.		suitable locations on the subject property, if authorized by the California Department of Fish and Wildlife. A qualified mammologist will recommend the appropriate units that are most likely to be utilized by bat species that likely inhabit the area. No special bat surveys shall be required prior to placement of the units.	
BIO-6: Conflict with an adopted Habitat Conservation Plan, NCCP, or Other Conservation Plan: The City of Palmdale and County of Los Angeles have not adopted a habitat conservation plan or natural community conservation plan that includes the Project site. However, Significant Ecological Areas (SEA) are areas where the County of Los Angeles deems it important to facilitate a balance between development and biological resource conservation. The closest SEA to the Project site is the Santa Clara River SEA No. 20, which is approximately one mile south of the Project site over the Sierra Pelona in the headwaters of the Santa Clara River. Connectivity and biogeographic relationship of the Project site to the Santa Clara SEA No. 20 could be presumed for animals that could exploit the upland habitats of the Project site and riparian wash woodland habitats of the Santa Clara River. However, several	Less Than Significant Impact	MM-BIO-10 – If Project grading/construction activities are scheduled to occur during the nesting season for breeding birds (typically January 15th through September 30th), the following measures shall be implemented: <ol style="list-style-type: none"> Within seven days prior to commencement of grading/construction activities, a qualified biologist shall perform a pre-construction survey of all proposed work limits and within 500 feet of the proposed work limits. If active avian nest(s) of non-special status species are discovered within or 500 feet from the work limits, a buffer shall be delineated around the active nest(s) measuring 300 feet for passerines and 500 feet for raptors. A qualified biologist shall monitor the nest(s) weekly after commencement of grading/construction to ensure that nesting behavior is not adversely affected by such activities. If the qualified biologist determines that nesting behavior of nearby non-regulatory status species could be adversely affected by grading/construction activities, a qualified biologist shall conduct a pre- 	Less Than Significant Impact

Table ES-1 – Environmental Impacts and Mitigation Summary

Issues/Impacts	Impact Level Before Mitigation?	Summary of Mitigation Measures	Impact Level After Mitigation?
<p>constraints to connectivity surround the Project site. Therefore, Project development will not conflict with any habitat conservation plan and no significant impact will result.</p>		<p>construction survey to determine the nesting status of birds near the proposed area of disturbance. If nesting birds are detected, the biologist would prepare a letter report and Mitigation Plan in conformance with applicable Federal and State laws (e.g., appropriate follow-up surveys, monitoring schedules, construction and noise barriers/buffers) to ensure that take of birds or eggs or disturbance of breeding activities is avoided. The report/Mitigation Plan would be submitted to the City for review/approval and implemented to the satisfaction of the City. The Biologist would verify in a report to the City that all measures identified in the Mitigation Plan are in place prior to and/or during construction. The report and Mitigation Plan shall be implemented in consultation with the California Department of Fish and Wildlife, to allow such activities to proceed. Once the young have fledged and all nests are inactive, then grading/construction activities may proceed within 300 feet (500 feet for raptor species) of the fledged nest(s).</p> <p>d. A single visit burrowing owl survey for all suitable areas of the Project site shall be performed within 30 days prior to any ground disturbing activities to ensure the absence of burrowing owl within the boundaries of disturbance. If the presence</p>	

Table ES-1 – Environmental Impacts and Mitigation Summary

Issues/Impacts	Impact Level Before Mitigation?	Summary of Mitigation Measures	Impact Level After Mitigation?
		<p>of burrowing owls is discovered, the California Department of Fish and Wildlife shall be consulted, and standard protocols shall be adhered to, prior to the occurrence of any ground disturbance.</p> <p>MM-BIO-11 – The Project Developer(s) shall retain a qualified biological monitor to monitor brush and tree removal and initial grading activities on the subject property. The monitor would ensure compliance with these Mitigation Measures. The monitor shall work with the Developer(s) and grading contractor to ensure orderly vegetation clearing to allow organisms an opportunity for escape.</p> <p>MM-BIO-12 – The Project Developer(s) shall provide all grading and construction contractors with copies of all Mitigation Measures required to reduce impacts to Biological Resources. Additionally, a pre-construction site meeting shall be conducted on-site with the grading contractor wherein verbal instruction shall be provided by the Project Biologist to ensure clear understanding that Biological Resources are to be avoided on the subject property in accordance with the Mitigation Measures. A brief brochure depicting types of sensitive Biological Resources on-site shall be provided to brush-clearing and grading contractors.</p> <p>MM-BIO-13 – The Project Developer(s) shall utilize reasonable commercially-available native seed material appropriate for the Antelope Valley for use in hydroseed applications on newly graded slopes, in consultation with the Project Biologist.</p>	

Table ES-1 – Environmental Impacts and Mitigation Summary

Issues/Impacts	Impact Level Before Mitigation?	Summary of Mitigation Measures	Impact Level After Mitigation?
		<p>MM-BIO-14 – Project work areas subject to disturbance shall be limited to the smallest amount of disturbance practicable. Boundaries of all work areas should be clearly delineated by stakes and flagging or similar marking in the field prior to construction. A biological monitor shall approve all field avoidance staking. To avoid incidental impacts to adjoining habitat areas by construction personnel, “No Trespassing Except by Authorization – Natural Habitat Area” signs shall be posted on each roadway at the edge of the construction area.</p> <p>MM-BIO-15 – All food-related trash such as wrappers, cans, bottles, and food scraps shall be disposed of in closed containers and regularly removed from the Project site. No deliberate feeding of wildlife shall be allowed.</p> <p>MM-BIO-16 – The Project Developer(s) shall implement dust control in conformance with Air Quality regulations and Best Management Practices.</p> <p>MM-BIO-17 – All lighting adjacent to natural areas shall be of low luminescence, directed downward or toward structures, and shielded to the extent necessary to prevent artificial illumination of natural areas and protect nocturnal Biological Resources, as determined appropriate by qualified biologist.</p> <p>MM-BIO-18 – Prior to issuance of the first Certificate of Occupancy, the Project Developer(s) shall prepare homeowner notifications and an education brochure advising homeowners of deed restrictions in deed-restricted areas, and CC&R requirements to maintain natural open space in a natural condition.</p>	

Table ES-1 – Environmental Impacts and Mitigation Summary

Issues/Impacts	Impact Level Before Mitigation?	Summary of Mitigation Measures	Impact Level After Mitigation?
<p>Cumulative Impacts:</p> <p>Implementation of Mitigation Measures identified in the Draft EIR would ensure the Quail Valley Project development and operation would not contribute to a cumulative loss of native desert habitat in the region. In addition, approximately 395.1 acres of the 878.1-acre Project site will be preserved, including suitable habitat for special-status plants and wildlife the Biological Resources Assessment identified as being on the Project site. Also, existing biological resources within the Project area currently experience a level of adverse impact due to adjacent residential and recreational uses to the north and east, and most wildlife species that could be expected to use the Project site/area regularly are species that are adapted to disturbance of the type caused by urban development. Future development of other planned projects within Antelope Valley would contribute to the cumulative loss of natural habitat. However, due to the existing influence of residential and recreational uses north and east of the Project site, it is not likely that development of the Quail Valley Project would contribute significantly to</p>	Less Than Significant Impact		Less Than Significant Impact

Table ES-1 – Environmental Impacts and Mitigation Summary

Issues/Impacts	Impact Level Before Mitigation?	Summary of Mitigation Measures	Impact Level After Mitigation?
cumulative adverse impacts to regional flora and fauna.			
Cultural Resources			
CUL-1 – Cause a substantial adverse change in the significance of a historical resource pursuant to (California Code of Regulations) Section 15064.5 No historical resources have been identified on the Project site	No Impact	No Mitigation Required	No Impact
CUL-2 – Cause a substantial adverse change in the significance of an archaeological resource pursuant to (California Code of Regulations) Section 15064.5 A 2004 survey located and recorded one previously undocumented prehistoric archaeological site - - CA-LAN-3343, which consists of 38 defined cupules and a meandering groove on several sides of a rock outcrop. The rock art components at CA-LAN-3343 are unusual in that finely pecked petroglyphs and cupules are directly associated. Pecked petroglyphs, which are present at LAN-3343, are scarce in the western Mojave Desert and surrounding mountains. Cupules are circular depressions that are carved, pecked, or ground into horizontal, vertical or	Potentially Significant Impact	Mitigation Measures MM-CUL-1 through MM-CUL-8 below	Less Than Significant Impact with Mitigation

Table ES-1 – Environmental Impacts and Mitigation Summary

Issues/Impacts	Impact Level Before Mitigation?	Summary of Mitigation Measures	Impact Level After Mitigation?
<p>angled rock surfaces to create a pattern of pits. The cupules in the Project site belong to the “Far Western Pit and Groove Tradition” that is widespread throughout California, the Great Basin, and the Columbia Plateau. Cupules usually are relatively shallow in relation to their diameters, vary in size from a few centimeters to more than 15 centimeters in size, range in number on any given boulder from a few to dozens, and are sometimes associated with linear grooves or other rock art.</p> <p>Cogstone staff conducted a survey of the Project site development area in 2004. The 2004 survey located and recorded one previously undocumented prehistoric archaeological site, which consists of 38 defined cupules and a meandering groove on several sides of a rock outcrop. Cupules typically are small, purposefully ground depressions in rock. The study was updated in February 2017 and a revisit by the archaeologist revealed one, and possibly two, pecked snakes in the same location not previously observed. The Cultural and Paleontological Assessment conducted for the Project site indicates that this site is a Tribal Cultural Resource</p>			

Table ES-1 – Environmental Impacts and Mitigation Summary

Issues/Impacts	Impact Level Before Mitigation?	Summary of Mitigation Measures	Impact Level After Mitigation?
<p>under CEQA. In 2023, Cogstone conducted a supplemental cultural records search on August 21, 2023. The search did not identify any new cultural resource studies or newly recorded archaeological resources in the Project Area since 2017. One historic built environment linear resource, P-19-192581 was identified that was not included in the 2017 assessment (Gust and Knight). This resource was previously evaluated for eligibility by Tinsley Becker and recommended not eligible for listing in the NRHP and CRHR. This recommendation of ineligibility was reaffirmed in all subsequent site revisits and reevaluations. As it is not eligible for listing, this resource requires no further consideration. As indicated in the Supplemental Cultural Resources Memorandum (dated October 5, 2023) prepared by Cogstone the recommendations in the 2017 Cogstone assessment continue to be appropriate.</p> <p>The Project development area will not extend into this resource.</p>			
CUL-3 – Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature	Less than significant impact	No Mitigation Measures required	Less than significant impact
CUL- 4– Disturb any human remains,	Potentially Significant Impact	MM-CUL-1 – A qualified principal investigator	Less Than Significant Impact

Table ES-1 – Environmental Impacts and Mitigation Summary

Issues/Impacts	Impact Level Before Mitigation?	Summary of Mitigation Measures	Impact Level After Mitigation?
<p>including those interred outside of dedicated cemeteries</p> <p>The Project site is considered sensitive for buried cultural resources because numerous prehistoric archaeological sites have been identified in the vicinity of the Project site and because of the past presence of several Native American tribal groups in the Project site vicinity. If human bones are discovered during Project development, the Los Angeles County Coroner must be notified in accordance with California Health and Safety Code Section 7050.5. The Coroner then will determine within two working days of being notified if the remains are subject to his/her authority. If the Coroner recognizes the remains to be Native American, he/she shall contact the Native American Heritage Commission by phone within 24 hours, in accordance with Public Resources Code Section 5097.98. The Native American Heritage Commission then will designate a Most Likely Descendant with respect to the human remains. The Most Likely Descendant then has the opportunity to recommend to the property owner or the person responsible for excavation work means for treating or disposing,</p>		<p>for archaeology and paleontology shall be retained to provide professional services pertaining to cultural resources on the Project site.. The principal investigator shall be responsible to implement the Mitigation Plan and to maintain professional standards of work. Development of a Treatment Plan shall be required to avoid Project construction delays. And shall be approved by the Director of Planning prior to issuance of a Grading Permit.</p> <p>MM-CUL-2 – The principal investigator and designated Native American representative shall present background information to all attendees at the pre-grade meeting. Any new excavation personnel hired after this date shall be presented the background information by the archaeological and Native American monitors.</p> <p>MM-CUL-3 – The rock art site (CA-LAN 3343) shall be preserved in place. During Project development it shall be fenced off with snow fencing placed 50 feet from the boulder complex and be considered a designated Environmentally Sensitive Area. The principal investigator shall be allowed to adjust the fencing on a temporary basis only to allow adjacent development to occur so long as the rock art site remains preserved</p> <p>MM-CUL-4 – Under the direction of the Principal Investigator, qualified archaeological monitors shall perform full-time monitoring of brush clearing, surface scraping, construction grading, and excavation in native sediments. Native American monitors shall work alongside the archaeologist monitors. One archaeological monitor and one Native American shall be assigned to</p>	

Table ES-1 – Environmental Impacts and Mitigation Summary

Issues/Impacts	Impact Level Before Mitigation?	Summary of Mitigation Measures	Impact Level After Mitigation?
<p>with appropriate dignity, the human remains and associated grave goods. Work may not resume in the vicinity of the find until all requirements of the Health and Safety Code have been satisfied.</p> <p>To ensure any impact to cultural resources would be lessened and remain less than significant, the following recommendations in the Cultural and Paleontological Assessment Report are formulated as Mitigation Measures. The Mitigation Measures meet CEQA and City of Palmdale requirements and, according to the Cultural Resources Assessment prepared for the Project, "... have been used throughout Southern California successfully in protecting resources while allowing timely completion of construction. The project specific measures have been carefully considered and serve to protect known resources to professional hazards."</p>		<p>each disparate grubbing/vegetation removal area. During periods of large area grubbing or cut-fill operations where excavations are spread out and not centrally observable by one team, this may require up to one team per operator. The monitoring team shall not circulate between disparate operating equipment while they are actively engaged in ground-disturbing activity.</p> <p>In areas undergoing repetitive removals in concentrated areas (such as with repetitive "scraper" passes in a concentrated area during over-excavation removals), the number of teams required shall be established by the Principal Investigator to ensure adequate observation during excavation activities. Should excavation proceed to depths where Pleistocene sediments occur, a qualified paleontologist should monitor those portions of the Project. Monitoring will include inspection of exposed surfaces and microscopic examination of matrix. The monitor will have authority to divert grading away from exposed resources temporarily to recover the specimens. Cooperation and assistance from on-site personnel will greatly assist timely resumption of work in the area of the discovery.</p> <p>MM-CUL-5 – If the discovery meets the criteria for (1) human bone, (2) an archaeological site or (3) a fossil locality, then work shall be diverted and a localized, temporary ESA will be established with a radius of 100 feet. The Cultural Resources Field Supervisor or Principal Investigator will evaluate the discovery. Notifications of discoveries will be sent within 24 hours to the client, consulting tribes and the City. Sites and localities require documentation including location and stratigraphic</p>	

Table ES-1 – Environmental Impacts and Mitigation Summary

Issues/Impacts	Impact Level Before Mitigation?	Summary of Mitigation Measures	Impact Level After Mitigation?
		<p>information. Decisions about testing and data recovery will be made in consultation with the client, consulting Tribes and the City. Digital copies of all documents and records regarding cultural discoveries shall be provided to the Tribes. Work may continue outside a 100-foot perimeter of the discovery.</p> <p>MM-CUL-6 – If microfossil localities are discovered, the monitor will collect matrix for processing. In order to limit downtime, the monitor may request heavy machinery assistance to move large quantities of matrix out of the path of construction to designated stockpile areas.</p> <p>MM-CUL-7 – Materials meeting significance criteria under CEQA shall be prepared, identified, and cataloged using tags. No cultural materials shall be altered (such as having numbers placed on them) pending decisions on the fate of the collection. The City shall consult with the Tribes regarding disposition of the collection. This may include reburial or donation to the accredited repository. The Project proponent is responsible for any initial curation fees.</p> <p>MM-CUL-8 – The principal investigator shall prepare monthly progress reports to be filed with the client, the City and any tribes who request continuing consultation. The Principal Investigator shall prepare a final digital report to be filed with the client, the City, the Tribes, and the California Historic Resources Information System. The report shall include a list of resources recovered, documentation of each site/locality, interpretation of resources recovered and will include all specialists' reports as appendices. The Project proponent is responsible for any initial curation fees.</p>	

Table ES-1 – Environmental Impacts and Mitigation Summary

Issues/Impacts	Impact Level Before Mitigation?	Summary of Mitigation Measures	Impact Level After Mitigation?
Cumulative Impacts: Project development and operation would not contribute to significant Cumulative impacts related to Cultural Resources.	Potentially Significant Impact	See Mitigation Measures MM-CUL-1 through MM-CUL-8 above	Less Than Significant Impact
Energy			
EN-1 – Result in significant impact due to wasteful, inefficient, or unnecessary energy resource consumption during Project construction or operation Project development would require energy use for grading and construction vehicles, construction crew vehicles/light-duty autos. The Project does not propose uses or operations that would inherently result in excessive and wasteful vehicle trips and Vehicle Miles Traveled, nor associated excess and wasteful vehicle energy consumption. Furthermore, enhanced fuel economies realized pursuant to Federal and State regulations and transition of automobiles and trucks to alternative energy sources would likely decrease future gasoline fuel demands per Vehicle Miles Traveled. Also, location of the Project proximate to regional and local roadway systems tends to	Less Than Significant Impact	No Mitigation Required	Less Than Significant Impact

Table ES-1 – Environmental Impacts and Mitigation Summary

Issues/Impacts	Impact Level Before Mitigation?	Summary of Mitigation Measures	Impact Level After Mitigation?
<p>reduce Vehicle Miles Traveled within the region and acts to reduce regional vehicle energy demands.</p> <p>The residential uses on the Project site proposed by the Project likely would cause energy demand and use that are comparable to other residential projects of similar scale and type. The resultant level of impact is less than significant in that the following would be part of Project development and/or Project operation.</p> <ul style="list-style-type: none"> • The Project would implement energy-saving features and operational programs, consistent with reduction measures contained in the City of Palmdale Energy Action Plan; • The Project would comply with the California Building Standards (CALGreen; CCR, Title 24, Part 11) as implemented by the City of Palmdale; • The Project would provide for and promote energy efficiencies beyond those required under Federal and State 			

Table ES-1 – Environmental Impacts and Mitigation Summary

Issues/Impacts	Impact Level Before Mitigation?	Summary of Mitigation Measures	Impact Level After Mitigation?
<p>of California standards and regulations and in doing so would meet or exceed all California Building Standards Code Title 24 standards; and,</p> <ul style="list-style-type: none"> The Project would not cause or result in the need for additional energy producing facilities or energy delivery systems. 			
<p>EN-2 – Conflict or obstruct with a state or local energy plan for renewable energy or energy efficiency</p> <p>Project development and operation will comply with the relevant Goals and Measures in the City of Palmdale Energy Action Plan and will not conflict with or obstruct a State or City of Palmdale plan for renewable energy or energy efficiency. The menu of City of Palmdale Energy Action Plan Goals and Measures will provide guidance for how residential development projects can conserve energy.</p>	Less Than Significant Impact	No Mitigation Required	Less Than Significant Impact
<p>Cumulative Impacts: Project development operation, together with other development existing and potential in the Project site vicinity, is or will be required to</p>	Less Than Significant Impact	No Mitigation Required	Less Than Significant Impact

Table ES-1 – Environmental Impacts and Mitigation Summary

Issues/Impacts	Impact Level Before Mitigation?	Summary of Mitigation Measures	Impact Level After Mitigation?
comply with State of California and City of Palmdale laws and ordinances pertaining to energy conservation. Compliance will result in less than significant cumulatively considerable impacts pertaining to energy.			
Geology/Soils			
<p>GEO-1i – Directly or indirectly expose people or structures to potential substantial adverse effects, including risk of loss, injury or death involving rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist or based on other substantial evidence of a known fault.</p> <p>The Project site is located in a seismically active Southern California region and would be subject to earthquake hazards. Forty-seven faults or fault segments have been identified within a 60-mile radius of the Project site.</p>	Potentially Significant Impact	<p>MM-GEO-1 – (General): Prior to issuance of grading permits for each map filed for the Project, the Project developer(s) shall prepare a Storm Water Pollution Prevention Plan that shall include Best Management Practices to control site erosion and downstream sediment discharge during Project development (grading and construction).</p> <p>MM-GEO-2 – (General): Prior to issuance of building permits, structural engineering plans and reports shall be prepared by a qualified civil engineer and shall be approved by the City of Palmdale. The structural engineering design shall specify appropriate structural design criteria and effective construction standards for the Project that would be in conformance with Uniform Building Code, as amended, for seismic performance standards.</p> <p>MM-GEO-3 – (Slope Stability): All grading shall be performed under testing and observation of a licensed engineering geologist and a geotechnical engineer in accordance with applicable provisions of the City of Palmdale Grading Ordinance and requirements of the City Engineer and the City Superintendent of Building and Safety.</p> <p>MM-GEO-4 – (Slope Stability): The Project engineering geologist and the Project geotechnical engineer</p>	Less Than Significant Impact
<p>GEO-1ii – Directly or indirectly expose people or structures to potential substantial adverse effects, including risk of loss, injury or death involving strong seismic ground shaking</p> <p>Although not located in an Alquist-Priolo Earthquake Fault Zone and no active faults have been mapped</p>	Potentially Significant Impact		Less Than Significant Impact

Table ES-1 – Environmental Impacts and Mitigation Summary

Issues/Impacts	Impact Level Before Mitigation?	Summary of Mitigation Measures	Impact Level After Mitigation?
on the Project site, Quail Valley is in a seismically active part of California. Thereby, a FRISKSP probabilistic free-field peak ground acceleration assessment was conducted on the Project site. The FRISKSP (probabilistic free-field peak ground acceleration assessment) conducted on the Project site found the average peak ground acceleration to be 0.85 g. A common acceptable level of risk is the statistical chance that a certain acceleration will have a 10 percent probability of being exceeded in a 50-year period. Thereby, moderate to strong ground motions from future regional earthquakes could occur during the life of the Project.		<p>shall review and approve the detailed 40-scale engineering grading plans prior to submittal for approval and issuance of grading permits. The consultant's acceptance shall be by signature on the plans, clearly indicating that they have reviewed the plans prepared by the design engineer, and that the plans include recommendations contained in his/her reports.</p> <p>MM-GEO-5 – (Slope Stability): All aspects of grading, including site preparation, grading and fill placement, shall be per the California Building Code.</p> <p>MM-GEO-6 – (Slope Stability): Cut slopes shall be constructed at a maximum gradient of 2:1. All cut slopes or back cuts for retaining walls must be observed by the Project geotechnical consultant to verify absence of adverse geologic conditions. Where topsoil is present at the top of a cut slope, the top of the slope shall be "laid back" or rounded.</p>	
<p>GEO-1iii – Directly or indirectly expose people or structures to potential adverse substantial effects, including risk of loss, injury or death involving seismic-related ground failure, including liquefaction)</p> <p>The California Geological Survey (Seismic Hazard Map, Ritter Ridge Quadrangle, 2003) has indicated a portion of the Project site is in a zone of required investigation for liquefaction potential. This area includes the main south-to-north drainage. Pacific Soils Engineering, Inc. concluded "...the site is considered to be</p>	Potentially Significant Impact	<p>MM-GEO-7 – (Slope Stability): Fill slopes may be constructed at a maximum gradient of 2:1. Fill slopes shall be keyed and benched into firm, in-place soil or bedrock. Fill slope keyways shall be a minimum of 15 feet wide and cut to a minimum depth of two feet at the toe into competent in-place materials. The keyway shall be tilted into the slope and shall be at least three feet deep at the heel (measured from below the slope toe elevation). The keyway shall be observed by the Project geotechnical consultant prior to placing any fill.</p> <p>MM-GEO-8 –(Slope Stability): All slopes shall require maintenance to reduce the risk of erosion and degradation with time due to natural or man-made conditions. Future performance of slopes will depend on</p>	Less Than Significant Impact

Table ES-1 – Environmental Impacts and Mitigation Summary

Issues/Impacts	Impact Level Before Mitigation?	Summary of Mitigation Measures	Impact Level After Mitigation?
susceptible to liquefaction and seismic settlement because of grain size, grain type, and soil plasticity.” Petra Geotechnical, Inc. (April 12, 2011) indicated its review of the Pacific Soils Engineering, Inc. prior geotechnical reports enabled it to state “...we generally concur with the findings, conclusions, and recommendations of the previous work.		the control of burrowing animals and maintenance of brow ditches, drainage structures, and slope vegetation. MM-GEO-9 – (Slope Stability): All graded or exposed natural slopes shall be maintained with dense, deep rooting (minimum two feet deep), drought resistant ground cover and shrubs or trees. A reliable irrigation system shall be installed on the slopes where necessary, adjusted so over watering does not occur, and periodically checked for leakage. Care shall be taken to maintain a uniform, near optimum moisture content in the slopes, and to avoid over drying, or excess irrigation. Excess watering of slopes shall be avoided to reduce the risk of erosion and surficial failures. Slopes shall not be watered before forecasted rain.	
GEO-1iv – Directly or indirectly expose people or structures to potential substantial adverse effects, including risk of loss, injury or death involving Landslides A portion of the Project site is located within a hillside region, within which is a potential for landslides. Minimal impacts within these areas are anticipated because open space uses are planned for these areas. As mentioned previously, a liquefaction study should be completed for any fill slope/structures planned in these areas since fill slopes are programmed to toe out in these areas.	Potentially Significant Impact	MM-GEO-10 – (Slope Stability): All drainage structures shall be kept in good condition and clean the entire length to the outlet. Final grading of the site shall provide positive drainage away from slopes, and water shall not be allowed to pond or gather in a slope area. Burrowing animals, particularly ground squirrels, can destroy slopes; therefore, where present, immediate measures shall be taken, to evict them with an ongoing program to maintain slope stability. MM-GEO-11 –(Differential Fill and Settlement/Landslides): On-site materials obtained from excavations may be used as fill soils. Fill soils shall be free of all deleterious materials including trash, debris, organic matter, and rocks larger than six inches. Fill soils shall be placed in thin uniform lifts not exceeding 10 inches of uncompacted thickness, brought to two percent over the optimum moisture content, and compacted to a minimum of 90	Less Than Significant Impact
GEO-2 – Result in substantial soil erosion or loss of topsoil Completion of Project development (construction) will cover over the development area with non-erosive surfaces,	Less Than Significant Impact		Less Than Significant Impact

Table ES-1 – Environmental Impacts and Mitigation Summary

Issues/Impacts	Impact Level Before Mitigation?	Summary of Mitigation Measures	Impact Level After Mitigation?
which would reduce the potential for erosion on the Project site to a less than significant level.		percent relative compaction. If more soil is needed, sources of import fill shall be approved by the Project geotechnical consultant prior to transport of materials to the site.	
<p>GEO-3 – Be Located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potential result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse</p> <p>The Geotechnical Review prepared for the Project site concludes that “the analysis indicates that proposed graded cut and fill slopes and remediated slopes (where necessary) have adequate stability for the proposed development.”</p>	Less Than Significant Impact	<p>MM-GEO-12 – (Differential Fill and Settlement/Landslides): Remedial grading in the form of removals and re-compaction is recommended to prepare all building pad areas and those locations where cut slopes are required near potential landslide designated areas. Within areas of settlement sensitive structures and five feet beyond, removal operations must remove any highly compressible upper native soils. Where fill thickness varies significantly or a transition condition exists under a structure, additional removals as recommended in the geotechnical investigation shall be performed to reduce the potential for differential movement.</p> <p>MM-GEO-13 – (Seismic Hazards-Expansive Soils): Expansion tests shall be performed at the finish grade materials at the conclusion of grading for each building pad area.</p>	Less Than Significant Impact
<p>GEO-4 – Be Located on Expansive Soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property</p> <p>The potential for disruptions to structural and graded foundations from expansive soils is less than significant.</p>	Potentially Significant Impact	<p>MM-GEO-14 –(Seismic Hazards-Expansive Soils): Information regarding the care and maintenance of improvements located on expansive soils shall be passed on to future owners of the property.</p> <p>MM-GEO-15 – (Erosion): Grading shall be scheduled for completion prior to the start of the rainy season generally defined as November, or detailed temporary erosion control plans shall be filed in a manner satisfactory to the City of Palmdale Department of Public Works.</p>	Less Than Significant Impact
<p>GEO-5 – Have Soils Incapable of Supporting Septic Tanks or Alternative Waste Water Disposal Systems where sewers are not available for disposal of waste water</p> <p>The 51 one-acre rural</p>	Less Than Significant Impact	<p>MM-GEO-16 –(Erosion): Any dirt or other material deposited on the roadways from construction</p>	Less Than Significant Impact

Table ES-1 – Environmental Impacts and Mitigation Summary

Issues/Impacts	Impact Level Before Mitigation?	Summary of Mitigation Measures	Impact Level After Mitigation?
equestrian lots located in the northeast corner of the Project site (Planning Area 2) are lower in elevation than the gravity sewer line. Therefore, these lots will be served by individual septic systems. The septic service is consistent with such service provided to the existing adjacent residential development northwesterly of Planning Area 2. The three five-acre lots located in the southeastern part of the development envelope will also be served by septic systems consistent with the adjacent properties in the Anaverde Hills area. The remaining portion of the Project site will be served by sewer connection to the Anaverde trunk system.		<p>operations shall be removed by the developer on a daily basis.</p> <p>MM-GEO-17 –(Erosion): Site grading areas shall be watered during grading and before landscaping on a regular basis to reduce fugitive dust generation.</p> <p>MM-GEO-18 – (Loosely Consolidated Soils): Cut lots which expose highly sheared material shall be over excavated and replaced with compacted fill to mitigate any potential settlement impacts associated with expansive or loose unconsolidated soils.</p> <p>MM-GEO-19 – (Loosely Consolidated Soils): Backfill in the exploratory trenches on site shall be removed and recompacted in areas of shallow cuts or areas to receive fill to mitigate any potential settlement impacts.</p> <p>MM-GEO-20 – (Settlement): The cut portion of building pads crossed by cut/fill daylight lines shall be over excavated to a minimum depth of three feet and replaced with a compacted blanket fill in order to mitigate any potential settlement impacts.</p>	
<p>GEO-6 – Destroy or indirectly destroy a unique paleontological resource or unique geologic feature</p> <p>Cogstone conducted a search for paleontological records at the Natural History Museum of Los Angeles County and in published materials. The Project site and a one-mile radius were searched for paleontological resources. It was determined there are no recorded paleontological localities within the Project site or the one-mile radius. The nearest known paleontological vertebrate sites are some miles east from the Project site along</p>	Potentially Significant Impact	<p>MM-GEO-21 – (Liquefaction): Positive drainage shall be consistently provided and maintained away from all structures. Drainage shall not be changed creating an adverse drainage condition.</p> <p>MM-GEO-22 – (Liquefaction): Landscape watering shall be held to a minimum. Sprinkler systems shall be maintained and plumbing leaks shall be immediately repaired to the subgrade soils underlying or adjacent to the structures do not become saturated. They should also have maximum uniform coverage with a</p>	Less Than Significant Impact

Table ES-1 – Environmental Impacts and Mitigation Summary

Issues/Impacts	Impact Level Before Mitigation?	Summary of Mitigation Measures	Impact Level After Mitigation?
<p>Avenue S near Little Rock.</p> <p>Quaternary Alluvium in the northern area of the Project site and the low-lying central area of the Project site usually do not contain significant vertebrate fossils in the uppermost layers. However, the potential exists for deeper materials in these two areas. That is, the potential for paleontological resources is low until grading exceeds 10 feet below the current ground surface. Given this possibility, the potential impact of Project development (grading) could be significant.</p>		<p>minimum amount of water usage and overlap. Trees shall be spaced so that roads will not extend under foundations or slabs.</p> <p>MM-GEO-23 – (Liquefaction): Water shall not be allowed to pond or accumulate around the pool decking allowing water migration into the subgrade. All pool hardware fittings shall be adequately watertight, and caulking shall be maintained between hardscape joints and the interfaces between the hardscape and the adjoining house.</p> <p>MM-CUL-1 – (Paleontological Resources): A qualified principal investigator for archaeology and paleontology shall be retained to provide professional services. The principal investigator shall be responsible to implement the Mitigation Plan and maintain professional standards of work. Development of a Treatment Plan is recommended to avoid construction delays.</p> <p>MM-CUL-6 – (Paleontological Resources): If microfossil localities are discovered, the monitor shall collect matrix for processing. In order to limit downtime, the monitor may request heavy machinery assistance to move large quantities of matrix out of the path of construction to designated stockpile areas. Testing of stockpiles will consist of screen washing small samples (200 pounds) to determine if fossils are present. Productive tests will result in screen washing of additional matrix from the stockpiles to a maximum of 6,000 pounds per locality.</p>	
Cumulative Impacts: The Project development and operational impacts related to Geology and	Less Than Significant Impact	No Mitigation Required	Less than significant

Table ES-1 – Environmental Impacts and Mitigation Summary

Issues/Impacts	Impact Level Before Mitigation?	Summary of Mitigation Measures	Impact Level After Mitigation?
Soils are site specific in nature. The Project and each other future development project are subject to, as a minimum, City-approved recommendations in site-specific geotechnical reports, uniform site development and construction standards relative to seismic and other geologic conditions prevalent within the Project vicinity. Each development project would need to meet requirements of the approving agency and Uniform Building Code requirements as those requirements pertain to the protection against known geologic impacts. Thereby, impacts due to cumulative development would be less than significant.			
Greenhouse Gas Emissions			
GHG-1 – Generate greenhouse gas emissions, either directly or indirectly that may have a significant impact on the environment The “Greenhouse Gas Assessment:” prepared for the Project indicates that currently “a widely accepted quantitative threshold for determining whether GHG emissions will have a significant impact on the environment needed to answer the first question [Threshold] has not been established.” Although both the California Air	Less Than Significant Impact		Less Than Significant Impact

Table ES-1 – Environmental Impacts and Mitigation Summary

Issues/Impacts	Impact Level Before Mitigation?	Summary of Mitigation Measures	Impact Level After Mitigation?
Resources Board and AVAQMD have published draft thresholds for review and comment, these agencies have not yet adopted significance thresholds applicable to general projects.			
<p>GHG-2 – Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases</p> <p>No Mitigation Measures are required because no significant impacts related to Greenhouse Gas Emissions have been identified. Compliance with City of Palmdale General Plan policies would contribute to ensuring any Project-related impacts to Greenhouse Gas Emissions would be maintained at a less than significant level.</p>	Less than Significant Impact		Less than Significant Impact
<p>Cumulative Impacts: Greenhouse Gas Emissions are the primary cause of Global Climate Change. An individual project, such as the proposed Project, does not have the potential to result in direct and significant Global Climate Change related effects in the absence of cumulative sources of greenhouse gas emissions. CEQA Guidelines emphasize the effects of greenhouse gas emissions are cumulative and should be analyzed in the context of CEQA</p>	Less Than Significant Impact	No Mitigation Measures are required	Less Than Significant Impact

Table ES-1 – Environmental Impacts and Mitigation Summary

Issues/Impacts	Impact Level Before Mitigation?	Summary of Mitigation Measures	Impact Level After Mitigation?
requirements for cumulative impacts analysis (CEQA Guidelines Section 151309(f). As the analysis in this Section indicates, the Project together with other existing or planned projects in the Project site vicinity would not conflict with an applicable plan, policy or regulation adopted for the purpose of reducing greenhouse gas emissions and the Project would not result in a cumulatively considerable impact pertaining to greenhouse gas emissions.			
Hazards/Hazardous Materials			
<p>HAZ-1 – Creation of a significant hazard to the public or the environment through the routing transport, use, or disposal of hazardous materials.</p> <p>Small amounts of hazardous materials may be used during Project development. Construction activities may involve transport, storage and use of chemical agents, solvents, paints and other hazardous materials. All construction-related materials will be required to be used, handled and transported (to the Antelope Valley Landfill) in compliance with Federal, State and City requirements. Future residents generally will keep and use small amounts of household</p>	Less Than Significant Impact	No Mitigation Measures are required.	Less Than Significant Impact

Table ES-1 – Environmental Impacts and Mitigation Summary

Issues/Impacts	Impact Level Before Mitigation?	Summary of Mitigation Measures	Impact Level After Mitigation?
<p>maintenance and cleaning materials and landscape maintenance products. Use of such products would not result in a significant risk or hazard to the public health and safety or the environment.</p>			
<p>HAZ-2 – 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.</p> <p>The Project site has been largely vacant, except for existing utility facilities and dirt roadway access. Based on a review of a current California Division of Oil, Gas and Geothermal Resources (DOGGR) oil well location map, two oil wells, Raymond D. Weller and Silver Leaf Oil Company’s “Realty Title Co.,” have existed near the northwestern boundary of the Project site. Both wells are reported as abandoned and plugged dry-holes in 1950. Carlin Environmental Consulting Inc. reviewed records for the wells online. The Raymond D. Weller well is located approximately 1,300 feet south and 1,900 feet west of the northeastern corner of Tovey Avenue and Avenue S, very close to the northern boundary of the Project site. The Project site is adjacent to</p>	<p>Potentially significant impact</p>	<p>MM-HAZ-1 – If evidence of subsurface soil contamination is discovered during future soil moving activities, the soil shall be properly removed from the Project site and transported to an appropriate off-site facility under the direction of a qualified environmental consulting firm.</p> <ul style="list-style-type: none"> • <p>MM-HAZ-2 – A site plan review shall be requested from the California Division of Oil, Gas and Geothermal Resources to determine if any investigations, re-abandonment or mitigation is required. Documentation of the precise locations of the oil wells shall be required as one of the initial steps in the abandonment/documentation process with the Division. It is likely the California Division of Oil, Gas and Geothermal Resources will require that the wells be re-abandoned to current standards.</p> <p>MM-HAZ-3 – Soil technicians associated with future grading activities shall be informed that minor spills could be discovered, as well as casing and slugs from spent ammunition. If any are observed, a properly experienced environmental consulting firm shall be contacted to recommend appropriate action.</p>	<p>Less Than Significant Impact</p>

Table ES-1 – Environmental Impacts and Mitigation Summary

Issues/Impacts	Impact Level Before Mitigation?	Summary of Mitigation Measures	Impact Level After Mitigation?
Special Studies Zones for the Nadeau Fault and the San, Andreas Fault. The Nadeau Fault is located approximately 500 feet north of the Project site and is a branch of the San Andreas Fault that is approximately 3,000 feet north of the Project site. These faults are considered active. Hazardous materials may be released into the environment and exposure to strong shaking may result from seismic activity.			
HAZ-3 – Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school. No schools are located within one-quarter mile of the Project site.	No Impact	No Mitigation Measures Required	No Impact
HAZ-4 – 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, create a significant hazard to the public or the environment. The Project site is not located on a Hazardous Materials Site.	No Impact	No Mitigation Measures Required	No Impact
HAZ-5 – 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,	No Impact	No Mitigation Measures Required	No Impact

Table ES-1 – Environmental Impacts and Mitigation Summary

Issues/Impacts	Impact Level Before Mitigation?	Summary of Mitigation Measures	Impact Level After Mitigation?
<p>would result in a safety hazard for people residing or working in the project area.</p> <p>The Project site is not located within an Airport Land Use Plan or within two miles of a public use airport.</p>			
<p>HAZ-6 – Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan.</p> <p>Project development and operation would not impair or physically interfere with any City-adopted emergency management plan or evacuation plan. Designated evacuation routes and emergency ingress and egress would not be obstructed by Project development or operation.</p>	Less Than Significant Impact	No Mitigation Measures Required	Less Than Significant Impact
<p>HAZ-7 – Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires.</p> <p>The Los Angeles County Fire Department will require fire protection plans, greenbelts, special access roads, fuel modification zones, and non-combustible construction techniques as necessary. Compliance with these requirements and with the City of Palmdale General Plan policies would ensure the</p>	Potentially Significant Impact	<p>MM-HAZ-4– Prior to issuance of any building permits, the Applicant/Developer shall submit a project specific Fire Protection Plan to the City of Palmdale Planning Manager and Public Works Director for review and approval in consultation with the Los Angeles Fire Department. The plan will incorporate standards for construction, including a zoned fuel modification program to reduce the threat of wildfires, and other elements necessary to comply with City and Fire Department regulations.</p>	Less Than Significant Impact

Table ES-1 – Environmental Impacts and Mitigation Summary

Issues/Impacts	Impact Level Before Mitigation?	Summary of Mitigation Measures	Impact Level After Mitigation?
<p>risk of exposure of people or structures, directly or indirectly, to a significant risk of loss, injury or death involving wildland fires would be maintained at a less than significant level. Additionally, the development is clustered in the center, lower areas of the valley. Homes are constructed general on the downhill side of the surrounding slopes. The post-development danger from wildland fire will be lessened through development of the property. Dried grasses within Area A will be replaced by low-water, desert-type ornamental vegetation in compliance with the Quail Valley Development Plan Landscape and Plant Palette. . The Quail Valley community will comply with all health and safety regulations and requirements of the City of Palmdale and the LA Fire Department pertaining to fire hazards. Among these, the project will incorporate and enforce standards for construction, including a zoned fuel modification program to reduce the threat of wildfires. A project specific Fire Protection Plan will analyze and provide recommendations for establishing Firesafe Zones</p>			
<p>Cumulative Impacts: The potential for release of toxic substances or</p>	Less Than Significant Impact	Mitigation Measures MM-HAZ-1 through MM-HIAZ-4	Less Than Significant Impact

Table ES-1 – Environmental Impacts and Mitigation Summary

Issues/Impacts	Impact Level Before Mitigation?	Summary of Mitigation Measures	Impact Level After Mitigation?
hazardous materials into the environment through accidents or routine transport, use or disposal of such materials would not be cumulatively considerable. There is not potential for the Project to contribute to any cumulative impacts pertaining to an adopted emergency response plan or emergency evacuation plan. The Project would not contribute to a cumulatively significant hazards/hazardous materials impact on any public or private schools in that none are located within one-quarter mile of the Project site. The Project site is not located on a designated hazardous materials site and therefore Project development would not contribute to a cumulatively significant hazardous materials impact associated with a listed hazardous materials site. All cumulative projects construction-related materials will be required to be used, handled and transported (to the Antelope Valley Landfill) in compliance with Federal, State and City requirements.			
Hydrology/Water Quality			
WQ-1 – Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality.	Less Than Significant Impact	No Mitigation Measures Required	Less Than Significant Impact

Table ES-1 – Environmental Impacts and Mitigation Summary

Issues/Impacts	Impact Level Before Mitigation?	Summary of Mitigation Measures	Impact Level After Mitigation?
Project development will convert natural drainage surfaces on the Project site to impervious surfaces and will alter existing drainage patterns. Project development will comply with State and City of Palmdale requirements, construction permits, and Best Management Practices that will prevent violations of water quality standards and waste discharge requirements from occurring.			
<p>WQ-2 – Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin.</p> <p>Increase in impervious surfaces could reduce amount of water reaching underground aquifers. However, based on observed conditions and research presented in the Hydrology Study prepared for the Project/Project site, groundwater is not expected to impact Project development (grading and construction). The resultant level of impact of Project development and operation would be less than significant.</p>	Less Than Significant Impact	No Mitigation Measures Required	Less Than Significant Impact
WQ-3 – 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	Less Than Significant Impact	No Mitigation Measures Required	Less Than Significant Impact

Table ES-1 – Environmental Impacts and Mitigation Summary

Issues/Impacts	Impact Level Before Mitigation?	Summary of Mitigation Measures	Impact Level After Mitigation?
<p>addition of impervious surfaces, in a manner which would;</p> <ol style="list-style-type: none"> 1. Result in substantial erosion or siltation on- or off-site; 2. Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site; 3. 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, 4. Impede or redirect flood flow. <p>The existing drainage pattern will be modified during Project development (grading and construction). However, the Project has been designed to maintain the same drainage discharge locations and tributary areas, to the maximum extent practicable, as in the existing condition, as explained in detail in the</p>			

Table ES-1 – Environmental Impacts and Mitigation Summary

Issues/Impacts	Impact Level Before Mitigation?	Summary of Mitigation Measures	Impact Level After Mitigation?
<p>Hydrology and Water Quality Section of the EIR</p> <ol style="list-style-type: none"> 1. Substantial Erosion/Siltation – Project landscaping and grading will be in compliance with City of Palmdale Hillside Grading Ordinance requirements. Impervious surfaces will ensure siltation and soil erosion will be minimized. Manufactured slope heights will be minimized to extent feasible to lessen erosion. 2. Substantial Rate/Volume of Surface Runoff – Surface runoff rate will increase slightly due to replacement of natural surfaces with impervious surfaces. Three detention basins will meet or exceed the 15% reduction in predevelopment peak flows required by the City. Also, flows leaving the basins to existing downstream drainage infrastructure will be reduced in comparison to pre-development flow condition. 3. Creation of 			

Table ES-1 – Environmental Impacts and Mitigation Summary

Issues/Impacts	Impact Level Before Mitigation?	Summary of Mitigation Measures	Impact Level After Mitigation?
<p>Runoff Water – Landscape irrigation will account for most of Project runoff water. However, runoff volume would not exceed capacities of existing or Project stormwater drainage systems.</p> <p>4. Impede/Redirect Flood Flows – Project grading will maintain the general direction of flood flows.</p>			
<p>WQ-4 – In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation.</p> <p>Project landscaping, grading in compliance with City of Palmdale Hillside Grading Ordinance requirements, and placement of impervious surfaces will ensure siltation and soil erosion within Area A will be minimized. The Area A residential component will be clustered in lower elevations and heights of manufactured slopes will be minimized to the extent feasible to lessen erosion.</p>	Less Than Significant Impact	No Mitigation Measures Required	Less Than Significant Impact
<p>WQ-5 – Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan.</p> <p>Project development will convert natural drainage surfaces on the Project site</p>	Less Than Significant Impact	No Mitigation Measures Required	Less Than Significant Impact

Table ES-1 – Environmental Impacts and Mitigation Summary

Issues/Impacts	Impact Level Before Mitigation?	Summary of Mitigation Measures	Impact Level After Mitigation?
to impervious surfaces and will alter existing drainage patterns. However, post-Project development peak flows will be less than pre-development flows in the 2-year, 5-year, and 10-year return periods.			
Creation or Contribution of Runoff Water that Exceeds Capacity of Existing/Planned Stormwater Drainage Systems or Provides Substantial Additional Sources of Polluted Runoff: Project development will contribute runoff water into stormwater drainage systems. However, proposed storm drain conveyance system improvements that are part of Project development will be located and sized in compliance with the Master Drainage Plan for the Project site and area.	Less Than Significant Impact	No Mitigation Measures Required	Less Than Significant Impact
Impede/Redirect Flood Flows: Project development grading is designed to maintain the general direction of flood flows throughout Area A and to encourage retention of natural drainage patterns to reduce water use in slope re-planting. Area B will remain in its natural state.	Less Than Significant Impact	No Mitigation Required	Less Than Significant Impact
Risk Release of Pollutants Due to Project Inundation in Flood Hazard, Tsunami, or Seiche Zones: The Project site is not located within a flood hazard,	No Impact	No Mitigation Required	No Impact

Table ES-1 – Environmental Impacts and Mitigation Summary

Issues/Impacts	Impact Level Before Mitigation?	Summary of Mitigation Measures	Impact Level After Mitigation?
tsunami, or seiche zone.			
Conflict with/Obstruct Water Quality Control Plan or Sustainable Groundwater Management Plan Implementation: Use of dry wells will ensure loss of groundwater infiltration will be minimized to the extent feasible. Project detention basins will be designed to peak flow rates for Project development conditions will be reduced to less than the bulk peak flow rates of the existing undeveloped Project site. Flows will not exceed design capacity of existing culverts and riprap pads and/or energy dissipators will be provided to lower velocity and scouring in the Project site's natural terrain and in the post-development condition.	Less Than Significant Impact	No Mitigation Required	Less Than Significant Impact
Cumulative Impacts: Project development and operation will not contribute to cumulatively considerable impacts, as indicated in the above. An NPDES permit and site-specific Stormwater Pollution Prevention Plan will be required to be developed and implemented for this Project and other projects in the vicinity. In addition, the Project and all other projects in the Project site vicinity will be required to prepare site-specific Water Quality Management Plans and to incorporate Best Management	Less Than Significant Impact	No Mitigation Measures Required	Less Than Significant Impact

Table ES-1 – Environmental Impacts and Mitigation Summary

Issues/Impacts	Impact Level Before Mitigation?	Summary of Mitigation Measures	Impact Level After Mitigation?
Practices into Project designs as necessary to ensure runoff does not substantially contribute to existing water quality violations. This will ensure single-family development on the Project site and in the Project vicinity will not contribute to cumulatively considerable water quality impacts. Additionally, because the Project and other existing and planned developments in the Project vicinity would be required to comply with Federal, State and City of Palmdale regulations, Project development and operation would not result in a cumulatively considerable impact to erosion or siltation.			
Land Use			
LU-1 – Physically divide established community: The Project site is bordered by an existing housing development to the northeast, while rural residential uses are scattered along the easterly and southeasterly boundary. The City Ranch Specific Plan residential development is located northwest of the site along Avenue S. Also, the California Aqueduct is north and east of the Project site. The City of Palmdale is proposing to annex the entire Quail Valley Project site, together with various adjacent parcels,	Less Than Significant Impact	No Mitigation Measures Required.	Less Than Significant Impact

Table ES-1 – Environmental Impacts and Mitigation Summary

Issues/Impacts	Impact Level Before Mitigation?	Summary of Mitigation Measures	Impact Level After Mitigation?
<p>consistent with the City Sphere of Influence/planning area boundary. The Quail Valley Project site is not contiguous with the City corporate boundary, although Avenue S is owned by the City and is directly adjacent to the Project site. Exhibit 3.1-3 (Annexation Boundary) depicts the properties proposed for annexation. The proposed annexation boundary currently includes 211 assessor parcels, (53 parcels within the property and 158 additional parcels), totaling approximately 1,310 acres. There are existing residences within the proposed annexation area northwesterly of the Avenue S/7th Street West intersection and in the Tovey Avenue area. The balance of the annexation area is vacant of development. Annexation of the 211 parcels would provide continuity and avoid creation of an “island” of unincorporated Los Angeles County territory.</p> <p>Project development will provide 730 residences that will continue the area residential uses and not divide an established community. Therefore, annexation of the additional properties adjacent to the Quail Valley Project site will avoid creation of an “island” of unincorporated County of Los Angeles</p>			

Table ES-1 – Environmental Impacts and Mitigation Summary

Issues/Impacts	Impact Level Before Mitigation?	Summary of Mitigation Measures	Impact Level After Mitigation?
territory. Therefore, the level of impact would be less than significant.			
<p>LU-2 – Cause a significant impact due to conflict with land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating environmental effect.</p> <p>The approximately 878.1-acre Project site is proposed to be annexed to the City of Palmdale together with other properties that together will total 1,310 acres. The Project will be consistent with the land uses designated for the Project site in Palmdale 2045 (General Plan Update) and with associated Zoning Code designations. The Project entitlements will be processed through the associated Planned Development Plan. Other ministerial permits required to allow Project development are listed in Section 4.11 (Land Use and Planning) in the EIR.</p>	No Impact	No Mitigation Measures required	No Impact
<p>LU-3 – Conflict with any applicable habitat conservation plan or natural community conservation plan.</p> <p>The City of Palmdale and County of Los Angeles have not adopted a habitat conservation plan or natural community conservation plan that include the Project site. The closest “Significant Ecological Area” to the Project site is the Santa</p>	No Impact	No Mitigation Measures required.	No Impact

Table ES-1 – Environmental Impacts and Mitigation Summary

Issues/Impacts	Impact Level Before Mitigation?	Summary of Mitigation Measures	Impact Level After Mitigation?
Clara River Ecological Area, which is approximately one mile south of the Project site. The San Andreas Significant Ecological Area is approximately three miles north of the Project site. “Significant Ecological Areas” are areas where the County of Los Angeles deems it important to facilitate a balance between development and biological resource conservation. In addition, according to the United States Fish and Wildlife Service Environmental Conservation Online System, the closest Habitat Conservation Plan is the Newhall Farm Seasonal Crossings Habitat Conservation Plan, adopted by the Ventura Fish and Wildlife Office (Ventura County Jurisdiction). Therefore, Project development and operation will not conflict with any such plan. No impact will result.			
Cumulative Impacts: There is no potential for the Project to contribute to cumulatively considerable impacts to Land Use.	Less Than Significant Impact	No Mitigation Measures Required.	Less Than Significant Impact
Mineral Resources			
MIN-1 – 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. The Project site does not have a known mineral	No Impact	No Mitigation Measures Required	No Impact

Table ES-1 – Environmental Impacts and Mitigation Summary

Issues/Impacts	Impact Level Before Mitigation?	Summary of Mitigation Measures	Impact Level After Mitigation?
resource nor is zoned for any mineral resource extraction. Therefore, Project development would not result in the loss of availability of a known mineral resource that would be of value to the region or to residents of the State of California and there would be no impact.			
MIN-2 – Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan. The Project site does not have any known mineral resources. Therefore, Project development will not result in the loss of availability of a locally-important mineral resource recovery site delineated on the City of Palmdale General Plan and there would be no impact.	No Impact	No Mitigation Measures Required	No Impact
Cumulative Impacts: Project development would not result in any impacts to a known mineral resource or expose people or property to hazards from abandoned mines or quarries. Therefore, Project development and operation would not result in a cumulatively considerable impact.	No Impact	No Mitigation Required	No Impact
Noise			
NOI-1 – Generation of a substantial temporary or permanent increase in	Potentially Significant Impact	MM-NOI-1 – All construction activities within 200 feet of the residences on the westerly side of	Less Than Significant Impact

Table ES-1 – Environmental Impacts and Mitigation Summary

Issues/Impacts	Impact Level Before Mitigation?	Summary of Mitigation Measures	Impact Level After Mitigation?
<p>ambient noise levels in the vicinity of the project in excess of standards established in the local general plan, noise ordinance, or applicable standards of other agencies.</p> <p>Construction noise represents a short-term impact on ambient noise levels. However, noise generated by construction equipment, including trucks, graders, bulldozers, concrete mixers and portable generators can reach high levels.</p> <p>The peak noise level for most construction equipment is 80-95 dBA at a distance of 50 feet. Noise levels at greater distances would be less than this level range. As an example, peak construction noise levels at 200 feet would be approximately 12 dB less and would range from 68-83 dBA.</p> <p>The sensitive land uses nearest the Project site are the existing residences east of the Project site along Tovey Avenue and Hernandez Drive, south of Avenue S. These residences are approximately 50 feet from the Project construction zone.</p> <p>Average noise levels (Leq) at the nearby residences could be in the 65-80 dBA range, which</p>		<p>Tovey Avenue shall be limited to the hours between 7:00 a.m. and 7:00 p.m., Monday through Saturday. Construction activities for the balance of the Project shall be limited to the hours of 6:30 a.m. and 8:00 p.m., Monday through Saturday. Construction shall be prohibited during all other time periods and all day on Sundays and legal holidays. The contractor shall conduct construction activities in such a manner that the maximum noise levels at the affected buildings will not exceed those listed in Section 12.08.440(B)(1) of the County of Los Angeles Noise Ordinance.</p> <p>Long-Term On-Site Impacts – Roadway Noise</p> <p>MM- NOI-2 – Prior to issuance of building permits, an acoustical analysis or a detailed acoustical study, if warranted based on post-grading conditions, shall be prepared by a qualified acoustical consultant and submitted to the City of Palmdale. The report shall describe and quantify noise sources impacting the lots on the north side of the Project adjacent to Avenue S, and the measures required to meet the appropriate exterior noise standard at these lots.</p> <p>All requirements of the detailed acoustical study shall be implemented at identified stages of Project development or Project operation.</p>	

Table ES-1 – Environmental Impacts and Mitigation Summary

Issues/Impacts	Impact Level Before Mitigation?	Summary of Mitigation Measures	Impact Level After Mitigation?
are substantially above current noise levels expected in the Project area. Therefore, significant noise increases will occur due to construction activities. The Noise Assessment prepared for Quail Valley indicates that the resultant noise levels are higher than existing ambient conditions, "...but are not excessively high. This level of noise is common in many urban areas." Thereby, limiting construction activities to hours consistent with the City of Palmdale Noise Ordinance will be necessary and is required.			
NOI-2 – Generation of excessive ground-borne vibration or ground-borne noise levels. Construction activity can result in varying degrees of ground vibration, depending on equipment and methods used, distance to the affected structures, and soil type. It is expected that ground-borne vibration from Project construction activities would cause only intermittent, localized intrusion. The distances between the Project development footprint are sufficiently great to prevent nearby residences from experiencing excessive ground-borne vibration or ground-borne noise levels. The resultant impact of Project development and operation will be less than	Less Than Significant Impact	No Mitigation Measures Required	Less Than Significant Impact

Table ES-1 – Environmental Impacts and Mitigation Summary

Issues/Impacts	Impact Level Before Mitigation?	Summary of Mitigation Measures	Impact Level After Mitigation?
significant.			
<p>NOI-3 – Exposure of people residing or working in the project area to excessive noise levels, 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.</p> <p>The Project site is not located within an airport land use plan or within two miles of a public airport or public use airport. The Project site is not located within an airport land use plan or within two miles of a public airport or public use airport. The Palmdale Regional Airport is 6.3 miles northeast of the Project site. Therefore, Project development and operation would not expose people residing or working in the Project area to excessive noise levels from airport use.</p>	No Impact	No Mitigation Measures Required	No Impact
<p>Cumulative Impacts: Cumulative Noise impacts of the Project, together with the existing noise environment in the Project vicinity, is not significant in relation to CEQA Thresholds of Significance for Noise. Noise emanating from Project development activities would be temporary in nature and limited to the duration of the development schedule, days of activity, hours of</p>	Less Than Significant Impact with Mitigation, noted above, during Project develop. activities	See above Mitigation Measures MM-NOI-1 and MM-NOI-2	Less Than Significant Impact

Table ES-1 – Environmental Impacts and Mitigation Summary

Issues/Impacts	Impact Level Before Mitigation?	Summary of Mitigation Measures	Impact Level After Mitigation?
activity, and varied components of activity. Additionally, Project cumulative operation long-term noise impacts to the existing ambient environment would not expose any sensitive receptors to significant high noise levels. Project development and operation, together with the City-identified 14 other projects anticipated within approximately two miles of the Project site, will be required to comply with State of California and City of Palmdale laws and ordinances pertaining to Noise. Compliance with result in less than significant cumulatively considerable impacts pertaining to Noise.			
Population/Housing			
<p>POP-1 – 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).</p> <p>The Project involves development of 730 single-family residences on what currently is vacant land occupying 878.1 acres.</p> <p>The proposed Project would result in direct population growth within the City of Palmdale. The Project would develop up to 730 single family</p>	Less Than Significant Impact	No Mitigation Measures Required	Less Than Significant Impact

Table ES-1 – Environmental Impacts and Mitigation Summary

Issues/Impacts	Impact Level Before Mitigation?	Summary of Mitigation Measures	Impact Level After Mitigation?
homes, which translates to a population of 2,592 residents when assuming 3.55 persons per household. When the Project population is added to the City population as estimated by the United States Census Bureau on July 1, 2019, the resulting population is 157,671 residents. This represents a 1.7 percent increase in total population in the City. For the purpose of developing the Regional Housing Needs Allocation, SCAG's Growth Forecast for the City of Palmdale in the year 2045 is projected to be 61,798 households. When Project housing is added to the City's existing housing stock of 47,785 units. This is within SCAG's housing projection for the City of Palmdale. Therefore, the Project is consistent with SCAG projections for growth within the City of Palmdale. Potential impacts on direct population growth within the area from the proposed Project would be less than significant.			
POP-2 – Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere. The Project site is vacant. Therefore, Project development and	No Impact	No Mitigation Measures Required	No Impact

Table ES-1 – Environmental Impacts and Mitigation Summary

Issues/Impacts	Impact Level Before Mitigation?	Summary of Mitigation Measures	Impact Level After Mitigation?
operation would not result in displacing any people or housing. No impact would result.			
Cumulative Impacts: Cumulative projects generally would result from development of residential projects in the vicinity of the Project site. Any generation of demand for additional housing will be less than significant and accommodated through the Palmdale General Plan Housing Element.	Less Than Significant Impact	No Mitigation Required	Less Than Significant Impact
Public Services			
PS-1 – 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 following public services: Fire Projection; Police Protection; Schools; Parks; or Other Public Facilities. The City will require Project Developer(s) to remit appropriate Development Fees, per a Standard Condition.	Less Than Significant Impact	No Mitigation Measures Required	Less Than Significant Impact

Table ES-1 – Environmental Impacts and Mitigation Summary

Issues/Impacts	Impact Level Before Mitigation?	Summary of Mitigation Measures	Impact Level After Mitigation?
<p>Project development and operation would increase fire protection and emergency needs, law enforcement services, demand for parks and library facilities, and school facility needs. The proposed Project would be required to pay school impact fees authorized under Education Code Section 17620 and Government Code Sections 65995, 65995.5, 65995.6, and 65995.7, as amended November 4, 1998, thereby mitigating school impacts. Any additional calls for Fire Protection/Emergency or Police services resulting from Project development and/or Project operation will be offset by payment of required mitigation fees. Payment of impact fees for libraries, Schools, and other public services will be required by the City of Palmdale as Standard Conditions of the discretionary permit application</p>			
<p>Cumulative Impacts: Cumulative impacts to fire protection/emergency services, police service, libraries, schools and other governmental facilities will be evaluated as those specific development permits are processed. Site-specific and any fee remission as Mitigation will be provided as appropriate or necessary.</p>	<p>Less Than Significant Impact</p>	<p>MM-PS-1: Prior to issuance of building permits, or at another processing stage deemed appropriate by the Director of Economic and Community Development, the Project developer(s) shall remit required Development Impact Fees to the City of Palmdale for use related to fire protection and emergency services, law enforcement service, and libraries.</p>	<p>Less Than Significant Impact</p>

Table ES-1 – Environmental Impacts and Mitigation Summary

Issues/Impacts	Impact Level Before Mitigation?	Summary of Mitigation Measures	Impact Level After Mitigation?
Recreation			
<p>REC-1 – 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.</p> <p>The Project will contain the Quail Valley Public Park, a 26.4-acre linear public park that will add to and enhance Palmdale's overall park and recreation facilities. The park contains over 13.1 acres of multiple active use facilities and another 13.3 acres of passive use. Active uses include a small amphitheater, tot lots with playground structures, two designated dog parks, and open turf areas allotted for open play. Ten (10) picnic tables with integrated shade covers, also decorative benches, and trash receptacles are along the length of the park. Large shade structures provide gathering locations, and a restroom is located in the central portion of the park. An exercise course is designed along the length of the park. The park includes ADA and EV parking stalls as well as dedicated park parking. A prime component of the Project is an extension of the Antelope Valley Backbone Trail, which extends the full length of the project from Avenue S</p>	Less Than Significant Impact	No Mitigation Measures Required because the Quail Valley Public Park acreage exceeds the City 13.1-acre requirement.	Less Than Significant Impact

Table ES-1 – Environmental Impacts and Mitigation Summary

Issues/Impacts	Impact Level Before Mitigation?	Summary of Mitigation Measures	Impact Level After Mitigation?
<p>to the southern end of the development envelope and then continues into Area B on existing dirt roadways. This improved 12-foot-wide multi-purpose trail is over 11,000 feet long, and the dirt roadway component in Area B extends another approximately 2,760 lineal feet. Another component of the recreation element includes 5-foot-wide semi-improved trails in the southern hillsides that form scenic loops. These hillside trails are approximately 12,900 feet long.</p> <p>The Project additionally will contain a 3.2-acre private HOA owned Recreation Center including a pool, spa, restrooms, pickleball courts and play areas. The private recreation center is for the use of the Quail Valley Residents. The acreage for the HOA Recreation Center is not included in the project's park acreage requirement calculations, but its proximity to the Quail Valley Community will be an attractive alternative to existing City recreation facilities.</p> <p>The recreational facilities within the Project will not have an adverse impact on the environment, as more fully discussed in Section 4.16 Recreation in this document. The recreational facilities are</p>			

Table ES-1 – Environmental Impacts and Mitigation Summary

Issues/Impacts	Impact Level Before Mitigation?	Summary of Mitigation Measures	Impact Level After Mitigation?
in compliance with City General Plan requirements and would not require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment.			
<p>REC-2 – Include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment.</p> <p>The recreational facilities within Quail Valley will not have an adverse impact on the environment. The recreational facilities are part of the overall integral community design and are in compliance with City General Plan requirements and would not require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment.</p>	No Impact	No Mitigation Required	No Impact
<p>Cumulative Impacts: All future proposed projects within the Project vicinity are required to provide adequate parkland or otherwise mitigate recreation facilities impacts on a project-by-project basis. Therefore, Project development and operation level of impact pertaining to Recreation facilities would be less than significant.</p>	Less Than Significant Impact	No Mitigation Required	Less Than Significant Impact

Table ES-1 – Environmental Impacts and Mitigation Summary

Issues/Impacts	Impact Level Before Mitigation?	Summary of Mitigation Measures	Impact Level After Mitigation?
Transportation			
<p>TR-1 – Conflict with program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities</p> <p>The Project will contain trail options that will allow for pedestrian, bicycle and equestrian users in a manner stipulated in the Palmdale General Plan Parks, Recreation, and Trails Element. Project development will provide new trails that include internal pedestrian trails and links to adjacent and nearby regional trails.</p> <p>The Project includes internal bicycle trails on the loop roadways to foster bike travel. These internal street bike trails are approximately 32,000 linear feet. The internal street trails connect to a major 8-foot-wide bicycle trail running along the project frontage at Avenue S, which will eventually connect to other segments of this important cross town bike way.</p> <p>The City of Palmdale General Plan and Public Works Traffic Department indicates the minimum acceptable LOS standard for intersections is LOS “D” during peak</p>	Potentially Significant Impact	<p>MM-TR-1 – Prior to issuance of Building Permits, the Applicant/Developer shall pay proportionate shares of improvement costs:</p>	Unavoidable Significant Impact for VMT. This impact remains Significant and Unavoidable after Mitigation is implemented.

Table ES-1 – Environmental Impacts and Mitigation Summary

Issues/Impacts	Impact Level Before Mitigation?	Summary of Mitigation Measures	Impact Level After Mitigation?
<p>hours and LOS “C” during non-peak hours.</p> <p>Additionally, CEQA requires a Vehicle Miles Traveled (VMT) analysis, which is discussed below.</p>			
<p>TR-2 - Conflict or Be Inconsistent with CEQA Guidelines Section 15064.3</p> <p>Table 4.17-14 in this document demonstrates Project Vehicle Miles Traveled per capita is greater than the regional threshold.</p> <p>Mitigation is required when Project VMT is expected to cause a significant transportation impact under CEQA. For land development projects, VMT mitigation focuses on measures that reduce number and length of single-occupant Project-generated vehicle trips. One mitigation to VMT impacts is Implementing Transportation Demand Management (TDM) strategies.</p> <p>Although TDM strategies are considered among the most effective VMT mitigators, project location, mitigation subcategory (e.g., commute trip reduction; neighborhood/site enhancement, etc.) and global maximum VMT reduction allowed by CAPCOA all limit what can be accomplished in</p>	<p>Significant and Unavoidable Impact</p>	<p>Potentially feasible Mitigation Measures <u>that pertain to VMT</u> impacts for land development projects include the following:</p> <ul style="list-style-type: none"> • Changing Project land use • Implementing Transportation demand Management (TDM) strategies • Adding off-site improvements <p>The Ruetters and Schuler Analysis addresses the potentially feasible Mitigation Measures <u>that pertain to Project VMT</u> impacts as follows.</p> <p><i>Alternative Land Uses</i></p> <p>Ruetters & Schuler determine “...alternative land uses are infeasible on the project site for the following reasons:</p> <ul style="list-style-type: none"> • The project site is currently zoned for residential use. • The area closest to Avenue S, which would be the most likely spot for commercial or other land uses, is located adjacent to existing residential development. • The project is located remotely from existing commercial or office commercial development centers. • The project has very limited frontage on Avenue S which is comprised of a detention basin which is not able to be relocated. 	<p>Unavoidable Significant Impact for VMT. This impact remains Significant and Unavoidable after Mitigation is implemented.</p>

Table ES-1 – Environmental Impacts and Mitigation Summary

Issues/Impacts	Impact Level Before Mitigation?	Summary of Mitigation Measures	Impact Level After Mitigation?
<p>the way VMT mitigation. Even if all feasible TDM strategies in the CAPCOA Report were implemented by the Project, and the effectiveness of each such strategy were supported with substantial evidence, the maximum allowable reduction in Project VMT would be capped at 15 percent (global maximum for suburban projects), which is half of what is necessary to reduce impact of Project VMT to a less than significant level.</p> <p>The Project Development Plan does include some strategies for VMT reduction, including a robust pedestrian network and bicycle paths. However, as the LSA memorandum states, "...the reduction in VMT gained from the improvements will be less than needed to reduce VMT to [a] less than significant [level]."</p>		<ul style="list-style-type: none"> There is a major dual gas line easement along Avenue S requiring a further setback from Avenue S." <p><i>Transportation Demand Management (TDM) Strategies</i></p> <p>The Ruettggers and Schuler Report indicates that TDM strategies reduce VMT through incentives and disincentives often related to cost and convenience of vehicle travel. The Los Angeles County Guidelines state that effectiveness of TDM strategies in reducing project VMT must be supported with substantial evidence. LSA Associates also indicates that the most widely used source for estimating effectiveness of TDM strategies is <i>Quantifying Greenhouse Gas Mitigation Measures, A Resource for Local Government to Assess Emission Reductions from Greenhouse Gas Mitigation Measures</i>, published by the California Air Pollution Control Offices Association (CAPCOA) in August, 2010. The CAPCOA Report provides assumptions, limitations, and methodologies for quantifying effectiveness of VMT mitigation measures.</p> <p>Although TDM strategies are considered among the most effective VMT mitigators, project location, mitigation subcategory (e.g., commute trip reduction; neighborhood/site enhancement, etc.) and global maximum VMT reduction allowed by CAPCOA all limit what can be accomplished in the way of VMT mitigation. Even if all feasible TDM strategies in the CAPCOA Report were implemented by the Project, and the effectiveness of each such strategy were supported with substantial evidence, the maximum allowable reduction in</p>	

Table ES-1 – Environmental Impacts and Mitigation Summary

Issues/Impacts	Impact Level Before Mitigation?	Summary of Mitigation Measures	Impact Level After Mitigation?
		<p>Project VMT would be capped at 15 percent (global maximum for suburban projects), which is half of what is necessary to reduce the impact of Project VMT to a less than significant level.</p> <p>The Quail Valley Planned Development Plan does include some strategies for VMT reduction, including a robust pedestrian network and bicycle paths. However, as the Ruettgers and Schuler Analysis states, "...the reduction in VMT gained from the improvements will be less than needed to reduce VMT to [a] less than significant [level]."</p> <p><i>Off-Site Improvements</i></p> <p>Addition of transportation improvements that support alternate modes of transportation in the Project vicinity with the goal of reducing VMT by encouraging a mode shift in Project trips to transit, bicycling or walking are considered off-site improvements. These types of improvements could include extending or completing segments of bicycle lanes or sidewalk to provide connectivity. The Ruettgers & Schuler Analysis states that substantial evidence would be necessary to support the effectiveness of off-site improvements in reducing Project VMT. The memorandum also states that "the CAPCOA Report focuses on the quantification of project-level rather than off-site mitigation and the SCAG model does not fully capture active transportation trips..."</p> <p>However, Quail Valley Project VMT impacts remain significant and unavoidable.</p>	

Table ES-1 – Environmental Impacts and Mitigation Summary

Issues/Impacts	Impact Level Before Mitigation?	Summary of Mitigation Measures	Impact Level After Mitigation?
TR-3 – Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)	No Impact	No Mitigation Measures Required	No Impact
TR-4 – Result in Inadequate Emergency Access or Access Primary ingress to the Project site will be via Avenue S, approximately 1.2 miles west of State Route 14. The median strip of westbound Avenue S will be modified to include a left-turn lane into the Project site and the eastbound Avenue S will include a dedicated right-turn lane into the Project site at “A Street.” The Avenue S/Avenue A intersection will be signalized. Secondary access is provided at existing Tovey Road. All roadways within the Project will meet City of Palmdale design standards. The Project’s internal roadway system will be comprised of a public street network of a series of curvilinear connector, local streets, rural streets, and traffic calming roundabouts that serve the Project neighborhoods. Emergency access will be	Less Than Significant Impact	No Mitigation Required.	Less Than Significant Impact

Table ES-1 – Environmental Impacts and Mitigation Summary

Issues/Impacts	Impact Level Before Mitigation?	Summary of Mitigation Measures	Impact Level After Mitigation?
facilitated to the Planning Areas within the Project via vehicle routes from Avenue S and Tovey Avenue. Emergency egress is available at a proposed EVA only roadway located at the southeastern end of the development envelope. Internal emergency access will not be affected negatively in that all Project interior streets are designed in compliance with City of Palmdale standards. The resultant level of impact on emergency service adequacy would be less than significant.			
Cumulative Impacts: Project development in concert with other foreseeable development projects in the Project vicinity would yield a significant impact related to transportation. Project cumulative scenario VMT per capita is greater than the regional threshold. In addition, based on VMT Guidelines, Project operation will result in a significant cumulative VMT impact.	Significant Cumulative Impact.	MM-TR-1	Significant Cumulative Impact pertaining to VMT.
Tribal Cultural Resources			
TCR-1 – 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)	Potentially Significant Impact	MM-TCR-1 – A qualified principal investigator for archaeology and paleontology shall be retained to provide professional services. The principal investigator shall be responsible to implement the Mitigation Plan and to maintain professional standards of work. Development of a Treatment Plan is recommended to avoid Project	Less Than Significant Impact

Table ES-1 – Environmental Impacts and Mitigation Summary

Issues/Impacts	Impact Level Before Mitigation?	Summary of Mitigation Measures	Impact Level After Mitigation?
<p>The Cultural and Paleontological Assessment conducted for the Project site indicated that an update search for archaeological and historic records was completed at the South-Central Coastal Information Center on January 17, 2017 to supplement an original 2004 survey of the Project development impact area. In 2023, a supplemental cultural records search was conducted. The search did not identify any new cultural resource studies or newly recorded archaeological resources in the Project Area since 2017. One historic built environment linear resource, P-19-192581 was identified that was not included in the 2017 assessment. This resource was previously evaluated for eligibility by Tinsley Becker and recommended not eligible for listing in the NRHP and CRHR. This recommendation of ineligibility was reaffirmed in all subsequent site revisits and reevaluations. In the earlier searches, the Project site and a one-mile radius were searched for cultural resources. One prehistoric site had been recorded previously. In addition, a historic but active electrical transmission line extends across an open space</p>		<p>construction delays.</p> <p>MM-TCR-2 – The principal investigator and designated Native American representative shall present background information to all attendees at the pre-grade meeting. Any new excavation personnel hired after this date will be presented the background information by the archaeological and Native American monitors.</p> <p>MM-TCR-3 – The rock art site (CA-LAN-3343) will be preserved in place. During construction, it shall be fenced off with snow fencing placed 50 feet from the boulder complex and be a designated Environmentally Sensitive Area. After construction it may be necessary to obscure the view of the boulder with native plants.</p> <p>MM-TCR-4 – Under the direction of the principal investigator, qualified archaeological monitors will perform full-time monitoring of brush clearing, surface scraping, construction grading, and excavation in native sediments. Native American monitors shall work alongside the archaeological monitors. One archaeological monitor and one Native American, will be assigned to each disparate grubbing/vegetation removal area. During periods of large area grubbing or cut-fill operations where excavations are spread out and not centrally observable by one team, this may require up to one team per equipment operator. The monitoring team will not circulate between disparate operating equipment while they are actively engaged in ground-disturbing activity. In areas undergoing repetitive removals in concentrated areas (such as with repetitive “scraper” passes in a</p>	

Table ES-1 – Environmental Impacts and Mitigation Summary

Issues/Impacts	Impact Level Before Mitigation?	Summary of Mitigation Measures	Impact Level After Mitigation?
<p>portion of the Project. It was found that there are two records within one-quarter mile, four records between one-quarter and one-half mile from the Project site, and 15 records between one-half mile and one mile (in addition to those records within the Project site). By type, there are five prehistoric sites, five prehistoric isolates, two multi-component sites, two historic structures, eight historical archaeological sites, and one historical archaeology isolate (total of 23). Cultural studies within one mile total 62.</p> <p>The 2004 survey located and recorded one previously undocumented prehistoric archaeological site - - CA-LAN-3343, which consists of 38 defined cupules and a meandering groove on several sides of a rock outcrop. The rock art components at CA-LAN-3343 are unusual in that finely pecked petroglyphs and cupules are directly associated. Pecked petroglyphs, which are present at LAN-3343, are very scarce in the western Mojave Desert and surrounding mountains. Cupules are circular depressions that are carved, pecked, or ground into horizontal, vertical or angled rock surfaces to create a pattern of pits. The cupules in the Project site</p>		<p>concentrated area during over-excavation removals), the number of teams required will be established by the principal investigator to insure adequate observation during excavation activities. Should excavation proceed to depths where Pleistocene sediments occur, a qualified paleontologist should monitor those portions of the Project. Monitoring will include inspection of exposed surfaces and microscopic examination of matrix. The monitor will have authority to divert grading away from exposed resources temporarily in order to recover the specimens. Cooperation and assistance from on-site personnel will greatly assist timely resumption of work in the area of the discovery.</p> <p>MM-TCR-5 – If the discovery meets the criteria for (1) human bone, (2) an archaeological site or (3) a fossil locality, then work will be diverted and a localized, temporary ESA will be established with a radius of 100 feet. The Cultural Resources Field Supervisor or principal investigator will evaluate the discovery. Notifications of discoveries will be sent within 24 hours to the client, consulting tribes and the City of Palmdale. Sites and localities require documentation including location and stratigraphic information. Decisions about testing and data recovery will be made in consultation with the client, consulting Tribes and the City of Palmdale. Digital copies of all documents and records regarding cultural discoveries shall be provided to the Tribes. Work may continue outside a 100-foot perimeter of the discovery.</p> <p>MM-TCR-6 – Materials meeting significance criteria under CEQA</p>	

Table ES-1 – Environmental Impacts and Mitigation Summary

Issues/Impacts	Impact Level Before Mitigation?	Summary of Mitigation Measures	Impact Level After Mitigation?
<p>belong to the “Far Western Pit and Groove Tradition” that is widespread throughout California, the Great Basin, and the Columbia Plateau. Cupules usually are relatively shallow in relation to their diameters, vary in size from a few centimeters to more than 15 centimeters in size, range in number on any given boulder from a few to dozens, and are sometimes associated with linear grooves or other rock art.</p> <p>In addition, a re-visit conducted in 2017 revealed one, and possibly two, pecked snakes not observed previously. Pecked petroglyphs, which are present at LAN-3343, are very scarce in the western Mojave Desert and surrounding mountains.</p> <p>The Project development area will not extend into this resource. However, implementation of the following Mitigation Measures will ensure any potential impact resulting from Project development will be reduced to a less than significant level. Paleontological Assessment Report as formulated as Mitigation Measures. The Mitigation Measures meet CEQA and City of Palmdale requirements and, according to the Cultural Resources Assessment prepared for the Project,</p>		<p>will be prepared, identified, and cataloged using tags. No cultural materials will be altered (such as having numbers placed on them) pending decisions on the fate of the collection. The City of Palmdale and the Project proponent will consult with the Tribes regarding disposition of the collection. This may include reburial or donation to the accredited repository. The Project proponent is responsible for any curation fees.</p> <p>MM-TCR-7 – The principal investigator will prepare monthly progress reports to be filed with the client, the City of Palmdale and any tribes who request continuing consultation. The principal investigator will prepare a final digital report to be filed with the client, the City of Palmdale, the Tribes and the California Historic Resources Information System. The report will include a list of resources recovered, documentation of each site/locality, interpretation of resources recovered and will include all specialists’ reports as appendices. The Project proponent is responsible for costs of the Mitigation Program</p>	

Table ES-1 – Environmental Impacts and Mitigation Summary

Issues/Impacts	Impact Level Before Mitigation?	Summary of Mitigation Measures	Impact Level After Mitigation?
“... have been used throughout Southern California successfully in protecting resources while allowing timely completion of construction. The project specific measures have been carefully considered and serve to protect known resources to professional hazards.”			
<p>TCR-2 – 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 resource to a California Native American tribe.</p> <p>The Project site is considered sensitive for buried cultural resources because numerous prehistoric archaeological sites have been identified in the vicinity of the Project site and because of the past presence of several Native American tribal groups in the Project site vicinity. To ensure any impact to cultural resources would be lessened and remain less than significant, the following recommendations in the Cultural and Paleontological</p>	Potentially Significant Impact	See MM-TCR-1 through MM-TCR-7 above.	Less Than Significant Impact

Table ES-1 – Environmental Impacts and Mitigation Summary

Issues/Impacts	Impact Level Before Mitigation?	Summary of Mitigation Measures	Impact Level After Mitigation?
Assessment Report as formulated as Mitigation Measures. The Mitigation Measures meet CEQA and City of Palmdale requirements and, according to the Cultural Resources Assessment prepared for the Project, "... have been used throughout Southern California successfully in protecting resources while allowing timely completion of construction. The project specific measures have been carefully considered and serve to protect known resources to professional hazards."			
Cumulative Impacts: As with all development projects in the Project site vicinity, it is possible that Project development may uncover tribal cultural resources. Specific Mitigation will be required that will ensure any such resources will be curated according to State law and appropriate tribal wishes. The potential cumulative impacts would be reduced to a less than significant level.	Potentially Significant Impact	Compliance with MM-TCR1 through MM-TCR-7 above and with State and City of Palmdale requirements and regulations impacts to Tribal Cultural Resources would be reduced to a less than significant level.	Less Than Significant Impact
Utilities/Service Systems			
UT-1 – Require/Result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or	Less Than Significant Impact	No Mitigation Measures Required	Less Than Significant Impact

Table ES-1 – Environmental Impacts and Mitigation Summary

Issues/Impacts	Impact Level Before Mitigation?	Summary of Mitigation Measures	Impact Level After Mitigation?
<p>relocation of which could cause significant environmental effects.</p> <p>All new facilities would be constructed according to City of Palmdale and the associated agency requirements. Project development would include construction of an on-site network of water and sewer pipes that would connect to existing water and sewer lines beneath surrounding roadways. Installation of water and sewer lines connections would result in physical environmental impacts potentially to air quality, paleontological resources, hydrology, and greenhouse gas emissions. However, with compliance with Mitigation Measures stated elsewhere in this document, Project development impacts are considered short-term and less than significant. The northernmost portion of the Project site from slightly northerly of the central community recreation facility) currently is located within the Palmdale Water District. The remaining portion of the Project site is neither within the spheres of influence of the Palmdale Water District nor the Los Angeles County Waterworks. However, the more southerly portion of the Project is located within the Antelope Valley East Kern Water District's</p>			

Table ES-1 – Environmental Impacts and Mitigation Summary

Issues/Impacts	Impact Level Before Mitigation?	Summary of Mitigation Measures	Impact Level After Mitigation?
<p>State Water Supply Contract Service Area (as described in more detail in Section 4.19). Los Angeles County Waterworks has declined interest in serving the Project. Palmdale Water District facilities are immediately adjacent to the Project portion not already within their District. Palmdale Water District and Antelope Valley East Kern Water District are coordinating to support establishment of an imported water supply exchange agreement to provide retail water service by Palmdale Water District to the Project portion located in Antelope Valley East Kern Water District's boundary. As a portion of the Project is outside of Palmdale Water District's boundary, the Project may entail a revision to the District Sphere of Influence and/or boundary. As Palmdale Water District has incorporated the water demands of the entire Project in their Water Supply Assessment analysis (see below and Section 4.19), Project development impacts are considered short-term and less than significant.</p>			
UT-2 – Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years.	Less Than Significant Impact	No Mitigation Measures Required	Less Than Significant Impact

Table ES-1 – Environmental Impacts and Mitigation Summary

Issues/Impacts	Impact Level Before Mitigation?	Summary of Mitigation Measures	Impact Level After Mitigation?
<p>On December 18, 2019, the Palmdale Water District approved the Applicant-supplied Water Supply Assessment for Quail Valley. The Approval stated that “the total water supplies available to Palmdale Water district during normal, single-dry, and multiple-dry years with a 20-year projection will meet the projected water demand of the project in addition to the demand of existing and other planned future uses, including, but not limited to, agricultural and manufacturing uses.” The Water Supply Assessment approval indicates that a portion of the required water supply will be provided by projected water supplies. Furthermore, the approval states that the Water Supply Assessment “... is also conditioned upon the Project developer entering into an agreement with Palmdale Water District relating to, among other things, the design and construction of water system improvements necessary to provide water service to the Project, the payment of all required fees and charges of the District and other governmental entities with jurisdiction over the Project, obtaining all required permits and approvals for the Project, resolution of the annexation issues and/or tax sharing and other issues arising from the</p>			

Table ES-1 – Environmental Impacts and Mitigation Summary

Issues/Impacts	Impact Level Before Mitigation?	Summary of Mitigation Measures	Impact Level After Mitigation?
exchange of State Water Project service areas, and the developer's compliance with all applicable laws applicable to the Project, including the rules and regulations of Palmdale Water District." The Water Supply Assessment declarations were initially effective until December, 2022. Subsequently, the Palmdale Water District extended the Water Supply Assessment as valid until December 22, 2023 and, on October 17, 2023, extended the Water Supply Assessment until December 20, 2024			
<p>UT-3 – Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing comments.</p> <p>All sewage disposal generated by Project development and operation will be accommodated. Sanitary sewer is available to the northwest of the Project site, at the end of Tangerine Street at the easterly edge of the Anaverde/City Ranch project. Exhibit 19-3 (Conceptual Sewer System Plan) in this document depicts a point of connection to the existing off-site sewer will be provided at</p>	Less Than Significant Impact	No Mitigation Measures Required	Less Than Significant Impact

Table ES-1 – Environmental Impacts and Mitigation Summary

Issues/Impacts	Impact Level Before Mitigation?	Summary of Mitigation Measures	Impact Level After Mitigation?
<p>Avenue S and the primary entry road to the Project (“A” Street). On-site sewage to be routed to it is conveyed northerly at the primary entrance through a gravity sewer line across Avenue S at “A” Street, through a 15-inch sewer proposed in the property directly north of Quail Valley (Tentative Tract Map 54328), to the existing sewer line in the Anaverde/City Ranch development, and then connecting to the 18-inch Elizabeth Lake Road Extension Trunk Sewer at the intersection of The Groves and Parkwood Avenue.</p> <p>A detailed sewer service analysis performed for the Project demonstrates that existing and proposed City of Palmdale sewers are sized adequately to convey peak sewage flow for the Project site to the existing Elizabeth Lake Road Extension Sewer consistent with the requirements of Los Angeles County Department of Public Works, and Los Angeles County Sanitation District (LACSD) No. 20. An annexation to the Sanitation District will be required, as well as a potential amendment to the District Sphere of Influence. In the event the proposed sewer line in Tract 54328 is not constructed prior to the need for sanitary sewer connections in the</p>			

Table ES-1 – Environmental Impacts and Mitigation Summary

Issues/Impacts	Impact Level Before Mitigation?	Summary of Mitigation Measures	Impact Level After Mitigation?
<p>proposed Project, a recorded agreement between the Project proponent and the owner of the adjacent property is in place that will provide an easement and construction rights to allow for an adequate sewer line to be constructed across the adjacent property.</p> <p>The one-acre rural equestrian lots in the northeast corner of the Project site are lower in elevation than the gravity sewer line. Therefore, these lots will be served by individual septic systems (consistent with the adjacent existing development). The 3 five-acre rural lots in the southwest corner of the Project also are planned to be served by individual septic systems. In addition to City requirements, the five-acre lots are subject to the County of Los Angeles Department of Health for Conventional Onsite Waste Treatment Systems Requirements and Procedures (OWTS). In addition to City requirements, the one-acre lots are subject to the County of Los Angeles Department of Health for Non-Conventional Onsite Waste Treatment Systems Requirements and Procedures (NOWTS). The County review and approval process will be completed prior to issuance of building</p>			

Table ES-1 – Environmental Impacts and Mitigation Summary

Issues/Impacts	Impact Level Before Mitigation?	Summary of Mitigation Measures	Impact Level After Mitigation?
permits for any homes on the lots wherein on-site waste treatment is anticipated.			
<p>UT-4 – 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.</p> <p>Project development and operation will be required to comply with California Assembly Bill 939 (1989), which mandated that each County in the State must meet diversion goals of 25 percent by 1995 and 50 percent by 2000. In addition, AB 939 established an integrated framework for program implementation, solid waste planning and solid waste facility and landfill compliance. In addition, Project development will comply with the City of Palmdale Source Reduction and Recycling Element to its Solid Waste Management Plan, which requires a construction waste diversion rate of 65 percent. In addition, Quail Valley will be required to comply with Title 24 and Title 20 of the California Code of Regulations.</p>	Less Than Significant Impact	No Mitigation Measures Required	Less Than Significant Impact
UT-5 – Comply with federal, state, and local management and reduction statutes and regulations related to solid waste.	Less Than Significant Impact	No Mitigation Measures Required	Less Than Significant Impact

Table ES-1 – Environmental Impacts and Mitigation Summary

Issues/Impacts	Impact Level Before Mitigation?	Summary of Mitigation Measures	Impact Level After Mitigation?
Project development and operation will be required to comply with California Assembly Bill 939 (1989), which mandated that each County in the State must meet diversion goals of 25percent by 1995 and 50percent by 2000. In addition, AB 939 established an integrated framework for program implementation, solid waste planning and solid waste facility and landfill compliance. In addition, Project development will comply with the City of Palmdale Source Reduction and Recycling Element to its Solid Waste Management Plan, which requires a construction waste diversion rate of 65 percent. In addition, Quail Valley will be required to comply with Title 24 and Title 20 of the California Code of Regulations.			
Cumulative Impacts: Project development and operation would require water infrastructure, wastewater infrastructure, and solid waste disposal. Public utility infrastructure development involves utility providers and jurisdictions with discretionary review authority. Coordination with utility providers would allow for provision of utility services to the Project and to other developments in the Project site vicinity. The	Less Than Significant Impact	No Mitigation Measures Required	Less Than Significant Impact

Table ES-1 – Environmental Impacts and Mitigation Summary

Issues/Impacts	Impact Level Before Mitigation?	Summary of Mitigation Measures	Impact Level After Mitigation?
Project and other planned projects are subject to connection and service fees to offset increased demand and assist in facility expansion and service improvements. Utility planning and coordination will ensure cumulatively considerable impacts to Utilities and Service Systems would not occur.			
Wildfire: If located in or near State Responsibility Areas or lands classified as Very High Fire Hazard Severity Zones -			
WF-1 – Substantially impair Adopted Emergency Response Plan or Emergency Evacuation Plan Project design incorporates direct vehicular access to nearly every part of the Project perimeter. Where direct vehicular traffic is not provided, access is provided by incorporating existing utility company-maintained dirt roadways and short distance direct access from improved roadways.	Less Than Significant Impact		Less Than Significant Impact
WF-2 – 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 The majority of the Project site is located within a July, 2021-identified CalFire-designated Very High Fire	Potentially Significant Impact	Mitigation Measure MM-WF-1/HAZ-5-1 – Prior to issuance of any building permits, the Applicant/Developer shall submit a project specific Fire Protection Plan to the City of Palmdale Planning Manager and Public Works Director for review and approval in consultation with the Los Angeles Fire Department. The plan will incorporate standards for construction, including a zoned fuel modification program to reduce the threat of wildfires, and other elements necessary to comply with City and Fire Department regulations.	Less Than Significant Impact

Table ES-1 – Environmental Impacts and Mitigation Summary

Issues/Impacts	Impact Level Before Mitigation?	Summary of Mitigation Measures	Impact Level After Mitigation?
<p>Hazard Safety Zone and within a State Responsibility Area. Portions of the Project site are located in a High Fire Hazard Safety Zone. Additionally, a Very High Fire Hazard Safety Zone is located adjacent to the Project site to the west, south of Avenue S. Project design incorporates direct vehicular access to nearly every part of the Project perimeter. Where direct vehicular traffic is not provided, access is provided by incorporating existing utility company-maintained dirt roadways and short distance direct access from improved roadways. Development is clustered, and development minimizes grading of slopes. The above, together with compliance with City of Palmdale and County of Los Angeles regulations, will ensure Project development and operation will minimize exposure of occupants to wildfire pollutants and the uncontrolled spread of wildfire.</p>			
<p>WF-3 – 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</p>	<p>Less Than Significant Impact</p>		<p>Less Than Significant Impact</p>

Table ES-1 – Environmental Impacts and Mitigation Summary

Issues/Impacts	Impact Level Before Mitigation?	Summary of Mitigation Measures	Impact Level After Mitigation?
<p>Project design incorporates direct vehicular access to nearly every part of the Project perimeter. Where direct vehicular traffic is not provided, access is provided by incorporating existing utility company-maintained dirt roadways and short distance direct access from improved roadways.</p> <p>The above, and off-site improvements, together with facets of the Project and compliance with City of Palmdale and County of Los Angeles regulations, will ensure Project development and operation will not result in a requirement for installation or maintenance of associated infrastructure that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment.</p>			
<p>WF-4 – 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</p> <p>A portion of the Project site is located with the Anaverde Creek Watershed. A number of debris basins are planned at upper elevations of the area proposed for development, at the natural intersections of the</p>	Less Than Significant Impact		Less Than Significant Impact

Table ES-1 – Environmental Impacts and Mitigation Summary

Issues/Impacts	Impact Level Before Mitigation?	Summary of Mitigation Measures	Impact Level After Mitigation?
<p>various natural drainage areas. Primary drainage will be conveyed within the street curb areas to storm drain lines and from the storm drain lines to a large storm drain line in the QV Public Park, terminating in an open detention basin adjacent to Avenue S north of the Project site. Some low volume surface drainage and “nuisance water” will be conveyed through biotreatment areas or in the storm drain system. A secondary drainage facility and discharge location will occur at the northwest corner of the Project site, but will be converted to graded residential lots after completion of regional downstream off-site drainage facilities consistent with the Hydrology Report prepared for the Project. Drainage in the lower northeast area, within Planning Area 2 and a portion of Planning Area 3, will be conveyed within the street curb to storm drain lines prior to discharging into a detention basin at the northeast boundary of Planning Area 2 and conveyed under the aqueduct via an existing storm drain line. The three five-acre rural lots in Planning Area 10 will not significantly alter the existing drainage in this area of the Project site in that these three lots are sufficiently large to</p>			

Table ES-1 – Environmental Impacts and Mitigation Summary

Issues/Impacts	Impact Level Before Mitigation?	Summary of Mitigation Measures	Impact Level After Mitigation?
<p>accommodate drainage changes within each lot.</p> <p>Project development therefore does not expose people or structures to significant risks as a result of runoff, post-fire slope instability, or drainage changes. All physical alteration of the Project site will comply with City of Palmdale regulations pertaining to grading, slope stability and drainage protection. The resultant level of impact will be less than significant.</p>			
<p>Cumulative Impacts: The vacant Project site is located in a Very High Fire Hazard area. Project development and continuing development in the vicinity of the Project site will be accompanied by roadway improvement, utility and services improvements and structural safety measures that will reduce danger to persons and structures from fires. The cumulative impact therefore is substantially positive.</p>	Less Than Significant Impact	No Mitigation Measures Required	Less Than Significant Impact
AESTHETICS			
MM-AES-1	The Project developer shall install low-profile, low-intensity lighting directed downward to minimize light and glare. High-intensity outdoor lighting on individual homes and structures shall be prohibited.		
MM-AES-2	The Project developer shall use shielded fixtures on lighting along residential streets, greenbelts and at the community facility to minimize glare produced by the lighting on the Project site.		
Table ES-2 – List of Mitigation Measures			
MM-AES-3	Prior to issuance of a Building Permit, the Project developer shall submit a		

Table ES-1 – Environmental Impacts and Mitigation Summary

Issues/Impacts	Impact Level Before Mitigation?	Summary of Mitigation Measures	Impact Level After Mitigation?
		generalized Project-wide Lighting Plan to the Planning Manager for approval. The Lighting Plan implementation elements may be phased in conjunction with the Project development phasing.	
AGRICULTURE AND FORESTRY RESOURCES			
None		No mitigation measures are required because no significant impacts related to Agriculture and Forestry Resources have been identified. Compliance with City of Palmdale General Plan policies would contribute to ensuring any Project-related impacts to Agriculture and Forestry Resources would be maintained at a less than significant level.	
AIR QUALITY			
MM-AQ-1		<p>Comply with AVAQMD. The Air Quality Assessment prepared for the Project stipulates the following Mitigation Measures must be implemented to address Project impacts to Air Quality.</p> <p><i>Particulate Emission (PM₁₀ Control</i></p> <p>Rule 403 requires that “Large Projects” implement additional mitigation. A “Large Project” is defined as “any active operations on property which contains 50 or more acres of disturbed surface area; or any earth-moving operation with a daily earth-moving or throughput volume of 3,850 cubic meters (5,000 cubic yards) for more than three times during the most recent 365-day period. Therefore, the Project is considered a “Large Project” under Rule 403. In addition to the applicable actions specified in the following Table 4.3-9 (Dust Control Measures for Large Operations), as a “Large Project,” the Project will be required to implement the following:</p> <ul style="list-style-type: none"> • Submit a fully executed Large Operation Notification to the AVQMD Executive Officer within seven days of qualifying as a large operation; • Include, as part of the notification, the name(s), address(es), and telephone number(s) of the person(s) responsible for the submittal, and a description of the operation(s), including a map depicting the location of the site; • Maintain daily records to document the specific dust control actions taken, maintain such records for a period of not less than three years and make such records available to the Executive Officer upon request; • Install and maintain project signage with project contact signage that meets the minimum standards of the Rule 403 Implementation Handbook, prior to initiating any earthmoving activities; • Identify a dust control supervisor that is employed by or contracted with the property owner or developer, is on the site or available on-site within 30 minutes during working hours, has the authority to expeditiously employ sufficient dust mitigation measures to ensure compliance with all Rule requirements, and has completed the AQMD Fugitive Dust Control Class and has been issued a valid Certificate of Completion for the class; and, • Notify the AVAQMD Executive Officer in writing within 30 days after the site no longer qualifies as a large operation. 	

Table ES-1 – Environmental Impacts and Mitigation Summary

Issues/Impacts	Impact Level Before Mitigation?	Summary of Mitigation Measures	Impact Level After Mitigation?
		<p>The following Table 4.3-8 (Required Best Available Control Measures, Rule 403, Table 1) presents best applicable control measures that shall be used to minimize fugitive dust emissions from each fugitive dust sourced type within the active operation. Carb = California Air Resources Board.</p> <p>CARB #24.b – Fugitive Dust. Construction Earthmoving: b) Prohibits VDE beyond property line and an upwind/downwind PM₁₀ differential of more than 50 µg/m³. Requires implementation of Best Available Control Measures (BACM) for all sources such that visible emissions do not exceed this limit 100 feet from the point of origin of earth-moving activities. List of BACM is contained in the Rule 403 Implementation Handbook. Specifies that a Dust Control Plan or a commitment to implement Table 1 and 2 control measures through a large operation notification (LON) is required for large operations project with a disturbed surface area 100 acres or larger, or projects with daily earth movement of 10,000 cubic yards or more.</p> <p>CARB #25.b – Fugitive Dust. Construction: Demolition: b) Prohibits VDE beyond property line. Requires application of BACM. Specified that upwind-downwind PM₁₀ levels must not exceed 50 µg/m³. Sets track-out requirements.</p> <p>CARB #26 b – Fugitive Dust. Construction: Grading Operations: b) Requires water application to increase moisture content to proposed cut, and grading each phase separately to coincide with the construction phase. Specifies that chemical stabilizers are to be applied to graded areas where construction will not begin for more than 60 days after grading.</p> <p>CARB #27 b – Fugitive Dust. Inactive Disturbed Land: b) Prohibits VDE beyond property line and an upwind/downwind PM₁₀ differential of more than 50 µg/m³. Requires BACM (e.g., chemical stabilization, frequent watering, and revegetation) at all times and high wind measures (e.g., chemical stabilization to maintain a stabilized surface or watering three times per day) under high wind conditions.</p> <p>CARB #28 b – Fugitive Dust. Bulk Materials: Handling/Storage: b) Prohibits VDE beyond property line and an upwind/downwind PM₁₀ differential of more than 50 µg/m³. Requires use of BACM (e.g., wind sheltering, watering, chemical stabilizers, altering load-in/load-out procedures, or coverings).</p> <p>CARB #30 b – Fugitive Dust. Carryout and Track-out: b) Requires removing any track-out within one hour, or selecting a Table 3 track-out prevention option and removing track-out at the end of the workday, if the track-out is less than 50 feet, and removing track-out as soon as possible, if it exceeds 50 feet. Table 3 track-out options include road surface paved or chemically stabilized from point of intersection with a public paved road to distance of at least 100 feet by 20 feet, or installation of track-out control device from point of intersection with a public paved road to a distance of at least 25 feet by 20 feet.</p> <p>CARB #32 b – Fugitive Dust. Disturbed Open Areas: b) Applies to non-agricultural areas of one-half acre or larger for residential use, and all non-residential areas. Requires application of chemical stabilizers; watering with sufficient frequency to establish a surface crust, or establishing drought-resistant vegetation as quickly as possible.</p>	

Table ES-1 – Environmental Impacts and Mitigation Summary

Issues/Impacts	Impact Level Before Mitigation?	Summary of Mitigation Measures	Impact Level After Mitigation?
		<p>CARB #38 b – Fugitive Dust. Weed Abatement Activities: b) Specifies weed abatement activities are subject to standards of Rule 403, unless 1) mowing or cutting is used, instead of discing, and stubble is maintained at least three inches above the soil, or 2) if discing is used, there is a determination of a potential fire hazard. Specifies that after discing, the requirement for taking action on disturbed surface areas applies.</p> <p>CARB #39 – Fugitive Dust. Windblown Dust: Definitions: Defines windblown dust as any visible emissions from any disturbed surface area which is generated by wind action along. Specifies wind gusts as maximum instantaneous wind speed.</p> <p>CARB #40 – Fugitive Dust. Windblown Dust: Construction/Earth Moving: Requires, for earthmoving, ceasing all active operations, applying water to soil not more than 15 minutes prior to moving such soil if subject to large operation requirements or if seeking an exemption from property line or upwind/downwind standard. Requires, for unpaved roads at construction sites, applying chemical stabilizers prior to a wind event, applying water twice per hour during active operations, stopping all vehicular traffic if subject to large operation requirements or if seeking an exemption from property line or upwind/downwind standard.</p> <p>CARB #42.a – Fugitive Dust. Bulk Materials/Storage Piles: a) Requires application of water twice per hour or installation of temporary coverings if subject to large operation requirements or if seeking an exemption from property line or upwind/downwind standard.</p> <p>Rule 403 further requires that “Large Projects” implement additional mitigation. A “Large Project” is defined as “any active operations on property which contains 50 or more acres of disturbed</p> <p>surface area; or any earth-moving operation with a daily earth-moving or throughput volume of 3,850 cubic meters (5,000 cubic yards) for more than three times during the most recent 365-day period. Therefore, the Project is considered a “Large Project” under Rule 403. In addition to the following applicable actions as a “Large Project” the Project will be required to implement the following:</p> <ul style="list-style-type: none"> • Submit a fully executed Large Operation Notification to the AVQMD Executive Officer within seven days of qualifying as a large operation; • Include, as part of the notification, the name(s), address(es), and telephone number(s) of the person(s) responsible for the submittal, and a description of the operation(s), including a map depicting the location of the site; • Maintain daily records to document the specific dust control actions taken, maintain such records for a period of not less than three years and make such records available to the Executive Officer upon request; • Install and maintain project signage with project contact signage that meets the minimum standards of the Rule 403 Implementation Handbook, prior to initiating any earthmoving activities; 	

Table ES-1 – Environmental Impacts and Mitigation Summary

Issues/Impacts	Impact Level Before Mitigation?	Summary of Mitigation Measures	Impact Level After Mitigation?
		<ul style="list-style-type: none"> Identify a dust control supervisor that is employed by or contracted with the property owner or developer, is on the site or available on-site within 30 minutes during working hours, has the authority to expeditiously employ sufficient dust mitigation measures to ensure compliance with all Rule requirements, and has completed the AQMD Fugitive Dust Control Class and has been issued a valid Certificate of Completion for the class; and, Notify the AVAQMD Executive Officer in writing within 30 days after the site no longer qualifies as a large operation. <p>Additionally, Rule 403 requires that construction activities “shall not cause or allow PM₁₀ levels [to] exceed 50 micrograms per cubic meter when determined by simultaneous sampling, as the difference between upwind and downwind sample.” Large Projects that cannot meet this performance standard are required to implement applicable actions from Rule 403 that are presented below [as expressed in the DEIR] in Table 4.3-9. (Dust Control Measures for Large Operations)</p> <p>Earth-moving (except cutting and filling areas, and mining operations) –</p> <p>(1a) Maintain soil moisture content at a minimum of 12 percent, as determined by ASTM method D2216, or other equivalent method approved by the Executive Officer, the California Air Resources Board, and the U. S. EPA. Two soil moisture evaluations must be conducted during the first three hours of active operations during a calendar day, and two such evaluations each subsequent four-period of active operations; OR</p> <p>(1a-1) For any earth-moving which is more than 100 feet from all property lines, conduct watering as necessary to prevent visible dust emissions from exceeding 100 feet in length in any direction.</p> <p>Earth-moving: Construction fill areas – (1b) Maintain soil moisture content at a minimum of 12 percent, as determined by ATM method D2216, or other equivalent method approved by the Executive Officer, the California Air Resources Board, and the U. S. EPA. For areas which have an optimum moisture content for compaction of less than 12 percent, as determined by ASTM Method 1557 or other equivalent method approved by the Executive Officer and the California Air Resources Board and the U. S. EPA, complete the compaction process as expeditiously as possible after achieving at least 70 percent of the optimum soil moisture content. Two soil moisture evaluations must be conducted during the first three hours of active operations during a calendar day, and two such evaluations during each subsequent four-hour period of active operations.</p> <p>Earth-moving: Construction cut areas and mining operations – (1c) Conduct watering as necessary to prevent visible emissions from extending more than 100 feet beyond the active cut or mining area unless the area is inaccessible to watering vehicles due to slope conditions or other safety factors.</p> <p>Disturbed surface areas (except completed grading areas) – (2a b) Apply dust suppression in sufficient quantity and frequency to maintain a stabilized surface. Any areas which cannot be stabilized, as evidenced by wind driven fugitive dust must have an application of water at least twice per day to at least 80 percent of the unstabilized area.</p>	

Table ES-1 – Environmental Impacts and Mitigation Summary

Issues/Impacts	Impact Level Before Mitigation?	Summary of Mitigation Measures	Impact Level After Mitigation?
		<p>Disturbed surface areas: Completed grading areas – (2c) Apply chemical stabilizers within five working days of grading completion, OR (2d) Take actions (3a) or (3c) specified for inactive disturbed surface areas</p> <p>Inactive disturbed surface areas – (3a) Apply water to at least 80 percent of all inactive disturbed surface areas on a daily basis when there is evidence of wind driven fugitive dust, excluding any areas which are inaccessible to watering vehicles due to excessive slope or other safety conditions; OR (3b) Apply dust suppressants in sufficient quantity and frequency to maintain a stabilized surface; OR (3c) Establish a vegetative ground cover within 21 days after active operations have ceased. Ground cover must be of sufficient density to expose less than 30 percent of unstabilized ground within 90 days of planting, and at all times thereafter; OR (3d) Utilize any combination of control actions (3a), (3b), and (3c) such that in total, these actions apply to all inactive disturbed surface areas.</p> <p>Unpaved Roads: (4a) Water all roads used for any vehicular traffic at least once per every two hours of active operations (3 times per normal 8-hour work day); OR (4b) Water all roads used for any vehicular traffic once daily and restrict vehicle speeds to 15 miles per hour; OR (4c) Apply a chemical stabilizer to all unpaved road surfaces in sufficient quantity and frequency to maintain a stabilized surface.</p> <p>Open storage piles – (5a) Apply chemical stabilizers; OR (5b) Apply water to at least 80 percent of the surface area of all open storage piles on a daily basis when there is evidence of wind driven fugitive dust; OR (5c) Install temporary coverings; OR (5d) Install a three-sided enclosure with walls with no more than 50 percent porosity which extend, at a minimum, to the top of the pile. This option may only be used at aggregate-related plants or at cement manufacturing facilities.</p> <p>All Categories – (6a) Any other control measures approved by the Executive Officer and the U.S. EPA as equivalent to the methods specified in Table 2 may be used.</p>	
MM-AQ-2		<p>Comply with Contingency Control Measures. The Project shall implement all applicable measures presented in DEIR Table 4.3.10 Contingency Control Measures for Large Operations (contained in the Air Quality Section of this document), regardless of conformance with the Rule 403 performance standard.</p> <p>Earth-moving – (1A) Cease all active operations; OR (2A) Apply water to soil not more than 15 minutes prior to moving such soil.</p> <p>Disturbed Surface Areas – (0B) On the last day of active operations prior to a weekend, holiday, or any other period when active operations will not occur for not more than four consecutive days: apply water with a mixture of chemical stabilizer diluted to not less than 1/20 of the concentration required to maintain a stabilized surface for a period of six months; OR (1B) Apply chemical stabilizers prior to wind event; OR (2B) Apply water to all unstabilized disturbed areas 3 times per day. If there is any evidence of wind driven fugitive dust, watering frequency is increased to a minimum</p>	

Table ES-1 – Environmental Impacts and Mitigation Summary

Issues/Impacts	Impact Level Before Mitigation?	Summary of Mitigation Measures	Impact Level After Mitigation?
		<p>of four times per day; OR (3B) Take the actions specified in Table 2, Item (3c); OR (4B) Utilize any combination of control actions (1B), (2B), and (3B) such that, in total, these actions apply to all disturbed surface areas.</p> <p>Unpaved Roads – (1c) Apply chemical stabilizers prior to wind event; OR (2C) Apply water twice per hour during active operation; OR (3c) Stop all vehicular traffic.</p> <p>Open Storage Piles – (1D) Apply water twice per hour; OR (2D) Install temporary coverings.</p> <p>Paved Road Track-Out – (1E) Cover all haul vehicles; OR (2E) Comply with the vehicle freeboard requirements of Section 23114 of the California Vehicle Code for both public and private roads.</p> <p>All Categories – (1F) Any other control measures approved by the Executive Officer and the U.S. EPA as equivalent to the methods specified in Table 3 may be used.</p> <p>Further, Rule 403 requires that a project shall not “allow track-out to exceed 25 feet or more in cumulative length from the point of origin from an active operation.” If the project requires track-out from an active operation, it is required to be removed at the conclusion of each workday or evening shift. Any active operation with a disturbed surface area of five or more acres, or with a daily import or export of 100 cubic yards or more of bulk materials must utilize at least one of the measures listed in the following Table 4.3.11 (Track Out control Options) [as presented in the DEIR], at each vehicle egress from the Project site to a paved public road.</p> <p>Track Out Control Options</p> <ul style="list-style-type: none"> (A) Install a pad consisting of washed gravel (minimum-size one inch) maintained in a clean condition to a depth of at least six inches and extending at least 20 feet wide and 50 feet long. (B) Pave the surface extending at least 100 feet and a width of at least 20 feet. (C) Utilize a wheel shaker-wheel spreading device consisting of raised dividers (rails, pipe, or grates) at least 24 feet long and 10 feet wide to remove bulk material from tires and vehicle undercarriages before vehicles exit the site. (D) Install and utilize a wheel washing system to remove bulk material from tires and vehicle undercarriages before vehicles exit the site. (E) Any other control measures approved by the Executive Officer and the U. S. EPA as equivalent to the methods specified items (a) through (D) above. <p>The following Mitigation Measure addresses other pollutants generated by construction equipment (due to engine combustion in equipment and employee commuting) that will also exceed AVAQM thresholds.</p>	
MM-AQ-3		MM-AQ-3 – Reduce Construction Equipment Emissions. The following should	

Table ES-1 – Environmental Impacts and Mitigation Summary

Issues/Impacts	Impact Level Before Mitigation?	Summary of Mitigation Measures	Impact Level After Mitigation?
		<p>be included in grading and improvement plans specifications for implementation by contractors:</p> <ul style="list-style-type: none"> • Use low emission mobile construction equipment to the extent reasonable available. The property owner/developer shall comply with California Air Resources Board requirements for heavy construction equipment. • Maintain construction equipment engines by keeping them tuned. • Use low sulfur fuel for stationary construction equipment. • Utilize existing power sources (i.e., power poles) when available. This measure would minimize the use of higher polluting gas or diesel generators. • Configure construction parking to minimize traffic interference. • Minimize obstruction of through-traffic lanes. Construction should be planned so that lane closures on existing streets are kept to a minimum. • Schedule construction operations affecting traffic for off-peak hours to the best extent when possible. <p>Develop a traffic plan to minimize traffic flow interference from construction activities (the plan may include advance public notice of routing, use of public transportation and satellite parking areas with a shuttle service).</p>	
BIOLOGICAL RESOURCES			
MM-BIO-1		<p>The Project developer shall not further subdivide for development 35.1 acres (45percent of the site) of natural habitat areas on the subject property. The Project developer shall avoid grading or otherwise modifying the natural habitats on-site that are designated for avoidance. Minor modification to the acreage (not to exceed five percent) will be allowed based on final engineering and mapping constraints, subject to the review and approval of the City Engineer, or equivalent, or his/her designee. The open space acres shall be owned by the Homeowners Association and protected from future development via provisions in the CC&Rs and also via deed restrictions. The intent is to ensure the avoided area remains as an open space component of the Project in perpetuity. The Developer or the Homeowners Association (HOA) may offer all or a portion of the open space property to a conservancy at some future date, but due in part to the complexity of conditions and rights contained in the existing easements, and the need for the OA or others to be able to access, repair, improve or maintain various roadways, drainage and other facilities, dedication is not a requirement.</p>	
MM-BIO-2		<p>Under the City of Palmdale's Hillside Management Ordinance, a density transfer shall be realized which would transfer densities away from avoided areas of the Project to areas within the proposed development envelope. Deed restrictions shall be recorded in phases, in conjunction with Project development phasing to coordinate and align density transfer allocations with the concurrent deed restriction allocations to balance density transfers with protecting correlated avoided acreage (for instance, by adjacency), subject to the review and approval of the City Planning Manager, or equivalent, or his/her designee.</p>	
MM-BIO-3		<p>Prior to issuance of Grading Permits for development activities that would result in removal of trees subject to the City of Palmdale Municipal Code Chapter 14.04, Joshua Tree and Native Vegetation Preservation, a qualified biologist/botanist shall conduct an updated Joshua tree survey and the Project Applicant/Developer(s) shall comply with all provisions of the City of Palmdale Municipal Code Chapter 14.04, Joshua Tree and Native Vegetation Preservation, and the Desert Vegetation Preservation Plan prepared for the Project, including if required, obtaining a Native Vegetation Removal Permit issued by the City Landscape Architect or by the Director of Public Works' designee.</p>	

Table ES-1 – Environmental Impacts and Mitigation Summary

Issues/Impacts	Impact Level Before Mitigation?	Summary of Mitigation Measures	Impact Level After Mitigation?
MM-BIO-4		Prior to the removal or relocation of any Joshua Trees on the Project site, the Developer shall prepare an updated Joshua Tree Survey in accordance with California Department of Fish and Wildlife and City of Palmdale requirements of Joshua Trees on the Property. If Joshua Trees remain as a Candidate Species indefinitely or should Joshua Trees be listed as Endangered/Threatened, an Incidental Take Permit may be required by California Department of Fish and Wildlife. Evidence of compliance with this Mitigation Measure (and Condition of Approval) shall be submitted to the City of Palmdale prior to realizing any effects to Joshua Trees on the Project site.	
MM-BIO-5		A Trails Alignment and Management Plan shall be submitted to the City of Palmdale Planning Manager for review and approval. The Plan shall delineate the trail alignment on topographic mapping suitable for planning purposes and shall prescribe management goals, trail design and alignment, and activities for proper trail maintenance. The Plan shall include specific citations to be included in the Project CC&Rs regarding the limitations placed on motorized vehicles to control motorized vehicle entry into avoided areas of the Quail Valley Project. Restrictions shall not apply to existing easement holders, in-holding parcel owners, and others with an existing right to pass through the property.	
MM-BIO-6		To offset potential effects of trail development, all work to establish the unimproved trails connecting existing dirt roadways within Area A surrounding the Project development footprint shall be constructed by a trail contractor familiar with trail construction utilizing Best Management Practices to avoid poor switchback design, and trail-related erosion conditions. The qualified Project Biologist shall accompany any equipment operating in hillside areas. The contractor and Project Biologist shall coordinate design and operations to minimize potential impacts to Biological Resources.	
MM-BIO-7		To offset impacts to California Department of Fish and Wildlife-jurisdictional “streambeds” and Regional Water Quality Control Board-jurisdiction “waters,” the Project Developer(s) shall obtain regulatory authorizations or waivers from the California Department of Fish and Wildlife and the Regional Water Quality Control Board and provide those authorizations to the City of Palmdale prior to issuance of Grading Permits.	
MM-BIO-8		To offset impacts to short-joint beavertail (<i>Opuntia basilaris</i> var. <i>bracycada</i>), specimens located within the Project’s clearing and grading footprint would be salvaged by a qualified consultant from the site prior to grading and replanted elsewhere on-site to establish plantings as near as possible to the natural condition. All new trail areas outside the development footprint that are approved for the Project shall avoid all <i>Opuntia basilaris</i> var. <i>brachyclada</i> on the Quail Valley property.	
MM-BIO-9		Prior to issuance of a Grading Permit, the Project developer(s) shall create potential bat roosting habitat by installing up to three (3) bat roosting structures in suitable locations on the subject property, if authorized by the California Department of Fish and Wildlife. A qualified mammologist will recommend the appropriate units that are most likely to be utilized by bat species that likely inhabit the area. No special bat surveys shall be required prior to placement of the units.	
MM-BIO-10		If Project grading/construction activities are scheduled to occur during the nesting season for breeding birds (typically January 15th through September 30th), the following measures shall be implemented: <ul style="list-style-type: none"> a. Within seven days prior to commencement of grading/construction activities, a qualified biologist shall perform a pre-construction survey of all proposed work limits and within 500 feet of the proposed work limits. 	

Table ES-1 – Environmental Impacts and Mitigation Summary

Issues/Impacts	Impact Level Before Mitigation?	Summary of Mitigation Measures	Impact Level After Mitigation?
		<p>b. If active avian nest(s) of non-special status species are discovered within or 500 feet from the work limits, a buffer shall be delineated around the active nest(s) measuring 300 feet for passerines and 500 feet for raptors. A qualified biologist shall monitor the nest(s) weekly after commencement of grading/construction to ensure that nesting behavior is not adversely affected by such activities.</p> <p>c. If the qualified biologist determines that nesting behavior of nearby non-regulatory status species could be adversely affected by grading/construction activities, a qualified biologist shall conduct a pre-construction survey to determine the nesting status of birds near the proposed area of disturbance. If nesting birds are detected, the biologist would prepare a letter report and Mitigation Plan in conformance with applicable Federal and State laws (e.g., appropriate follow-up surveys, monitoring schedules, construction and noise barriers/buffers) to ensure that take of birds or eggs or disturbance of breeding activities is avoided. The report/Mitigation Plan would be submitted to the City for review/approval and implemented to the satisfaction of the City. The Biologist would verify in a report to the City that all measures identified in the Mitigation Plan are in place prior to and/or during construction. The report and Mitigation Plan shall be implemented in consultation with the California Department of Fish and Wildlife, to allow such activities to proceed. Once the young have fledged and all nests are inactive, then grading/construction activities may proceed within 300 feet (500 feet for raptor species) of the fledged nest(s).</p> <p>d. A single visit burrowing owl survey for all suitable areas of the Project site shall be performed within 30 days prior to any ground disturbing activities to ensure the absence of burrowing owl within the boundaries of disturbance. If the presence of burrowing owls is discovered, the California Department of Fish and Wildlife shall be consulted, and standard protocols shall be adhered to, prior to the occurrence of any ground disturbance</p>	
MM-BIO-11		The Project Developer(s) shall retain a qualified biological monitor to monitor brush and tree removal and initial grading activities on the subject property. The monitor would ensure compliance with these Mitigation Measures. The monitor shall work with the Developer(s) and grading contractor to ensure orderly vegetation clearing to allow organisms an opportunity for escape.	
MM-BIO-12		The Project Developer(s) shall provide all grading and construction contractors with copies of all Mitigation Measures required to reduce impacts to Biological Resources. Additionally, a pre-construction site meeting shall be conducted on-site with the grading contractor wherein verbal instruction shall be provided by the Project Biologist to ensure clear understanding that Biological Resources are to be avoided on the subject property in accordance with the Mitigation Measures. A brief brochure depicting types of sensitive Biological Resources on-site shall be provided to brush-clearing and grading contractors.	
MM-BIO-13		The Project Developer(s) shall utilize reasonable commercially-available native seed material appropriate for the Antelope Valley for use in hydroseed applications on newly graded slopes, in consultation with the Project Biologist.	
MM-BIO-14		Project work areas subject to disturbance shall be limited to the smallest amount of disturbance practicable. Boundaries of all work areas should be clearly delineated by stakes and flagging or similar marking in the field prior to construction. A biological monitor shall approve all field avoidance staking. To avoid incidental impacts to adjoining habitat areas by construction personnel, "No Trespassing –	

Table ES-1 – Environmental Impacts and Mitigation Summary

Issues/Impacts	Impact Level Before Mitigation?	Summary of Mitigation Measures	Impact Level After Mitigation?
		Natural Habitat Area” signs shall be posted on each roadway at the edge of the construction area.	
MM-BIO-15		All food-related trash such as wrappers, cans, bottles, and food scraps shall be disposed of in closed containers and regularly removed from the Project site. No deliberate feeding of wildlife shall be allowed.	
MM-BIO-16		To minimize the effects of Project-generated dust, the Project Developer(s) will implement dust control in conformance with Air Quality regulations and Best Management Practices.	
MM-BIO-17		All lighting adjacent to natural areas shall be of low luminescence, directed downward or toward structures, and shielded to the extent necessary to prevent artificial illumination of natural areas and protect nocturnal Biological Resources, as determined appropriate by qualified biologist.	
MM-BIO-18		Prior to issuance of the first Certificate of Occupancy, the Project Developer(s) shall prepare homeowner notifications and an education brochure advising homeowners of deed restrictions in deed-restricted areas, and CC&R requirements to maintain natural open space in a natural condition.	
CULTURAL RESOURCES			
MM-CR-1		A qualified principal investigator for archaeology and paleontology will be retained to provide professional services. The principal investigator will be responsible to implement the Mitigation Plan and to maintain professional standards of work. Development of a Treatment Plan is recommended to avoid Project construction delays.	
MM-CR-2		The principal investigator and designated Native American representative will present background information to all attendees at the pre-grade meeting. Any new excavation personnel hired after this date will be presented the background information by the archaeological and Native American monitors.	
MM-CR-3		The rock art site (CA-LAN-3343) will be preserved in place. During Project development it shall be fenced off with snow fencing placed fifty (50) feet from the boulder complex and be a designated Environmentally Sensitive Area. The principal investigator shall be allowed to adjust the fencing on a temporary basis only to allow adjacent development to occur so long as the rock art site remains preserved.	
MM-CR-4		Under the direction of the Principal Investigator, qualified archaeological monitors will perform full-time monitoring of brush clearing, surface scraping, construction grading, and excavation in native sediments. Native American monitors shall work alongside the archaeologist monitors. One archaeological monitor and one Native American will be assigned to each disparate grubbing/vegetation removal area. During periods of large area grubbing or cut-fill operations where excavations are spread out and not centrally observable by one team, this may require up to one team per operator. The monitoring team will not circulate between disparate operating equipment while they are actively engaged in ground-disturbing activity. In areas undergoing repetitive removals in concentrated areas (such as with repetitive “scraper” passes in a concentrated area during over-excavation removals), the number of teams required will be established by the Principal Investigator to ensure adequate observation during excavation activities. Should excavation proceed to depths where Pleistocene sediments occur, a qualified paleontologist should monitor those portions of the Project. Monitoring will include inspection of exposed surfaces and microscopic examination of matrix. The monitor will have authority to divert grading away from exposed resources temporarily to recover the specimens. Cooperation and assistance from on-site personnel will greatly assist timely resumption of work in the area of the discovery.	

Table ES-1 – Environmental Impacts and Mitigation Summary

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Issues/Impacts	Impact Level Before Mitigation?	Summary of Mitigation Measures	Impact Level After Mitigation?
MM-CR-5	If the discovery meets the criteria for (1) human bone, (2) an archaeological site or (3) a fossil locality, then work will be diverted and a localized, temporary ESA will be established with a radius of 100 feet. The Cultural Resources Field Supervisor or Principal Investigator will evaluate the discovery. Notifications of discoveries will be sent within 24 hours to the client, consulting tribes and the City. Sites and localities require documentation including location and stratigraphic information. Decisions about testing and data recovery will be made in consultation with the client, consulting Tribes and the City. Digital copies of all documents and records regarding cultural discoveries shall be provided to the Tribes. Work may continue outside a 100-foot perimeter of the discovery.		
MM-CR-6	If microfossil localities are discovered, the monitor will collect matrix for processing. In order to limit downtime, the monitor may request heavy machinery assistance to move large quantities of matrix out of the path of construction to designated stockpile areas.		
MM-CR-7	Materials meeting significance criteria under CEQA will be prepared, identified, and cataloged using tags. No cultural materials will be altered (such as having numbers placed on them) pending decisions on the fate of the collection. The City will consult with the Tribes regarding disposition of the collection. This may include reburial or donation to the accredited repository. The Project proponent is responsible for any initial curation fees.		
MM-CR-8	The principal investigator will prepare monthly progress reports to be filed with the client, the City and any tribes who request continuing consultation. The Principal Investigator will prepare a final digital report to be filed with the client, the City, the Tribes, and the California Historic Resources Information System. The report will include a list of resources recovered, documentation of each site/locality, interpretation of resources recovered and will include all specialists' reports as appendices. The Project proponent is responsible for any initial curation fees.		
ENERGY			
None	No mitigation measures are required because no significant impacts related to Energy have been identified. Compliance with City of Palmdale General Plan policies would contribute to ensuring any Project-related impacts to Energy would be maintained at a less than significant level.		
GEOLOGY AND SOILS			
MM-GEO-1	General: Prior to issuance of grading permits for each map filed for the Project, the Project developer(s) shall prepare a Storm Water Pollution Prevention Plan that shall include Best Management Practices to control site erosion and downstream sediment discharge during Project development (grading and construction).		
MM-GEO-2	General: Prior to issuance of building permits, structural engineering plans and reports shall be prepared by a qualified civil engineer and shall be approved by the City of Palmdale. The structural engineering design shall specify appropriate structural design criteria and effective construction standards for the Project that would be in conformance with Uniform Building Code, as amended, for seismic performance standards.		
MM-GEO-3	Slope Stability: All grading shall be performed under testing and observation of a licensed engineering geologist and a geotechnical engineer in accordance with applicable provisions of the City of Palmdale Grading Ordinance and requirements of the City Engineer and the City Superintendent of Building and Safety.		
MM-GEO-4	Slope Stability: The Project engineering geologist and the Project geotechnical engineer shall review and approve the detailed 40-scale engineering grading plans prior to submittal for approval and issuance of grading permits. The consultant's		

Table ES-1 – Environmental Impacts and Mitigation Summary

Issues/Impacts	Impact Level Before Mitigation?	Summary of Mitigation Measures	Impact Level After Mitigation?
		acceptance shall be by signature on the plans, clearly indicating that they have reviewed the plans prepared by the design engineer, and that the plans include recommendations contained in their reports.	
MM-GEO-5		Slope Stability: All aspects of grading, including site preparation, grading and fill placement, shall be per the City of Palmdale Municipal Code.	
MM-GEO-6		Slope Stability: Cut slopes may be constructed at a maximum gradient of 2:1. All cut slopes or back cuts for retaining walls must be observed by the Project geotechnical consultant to verify absence of adverse geologic conditions. Where topsoil is present at the top of a cut slope, the top of the slope shall be “laid back” or rounded.	
MM-GEO-7		Slope Stability: Fill slopes may be constructed at a maximum gradient of 2:1. Unless modified by the Project geotechnical engineer based on identified specific field conditions during grading. Fill slopes shall be keyed and benched into firm in-place soil or bedrock. Fill slope keyways shall be a minimum of 15 feet wide and cut to a minimum depth of two (2) feet at the toe into competent in-place materials. The keyway shall be tilted into the slope and shall be at least three (3) feet deep at the heel (measured from below the slope toe elevation). The keyway shall be observed by the Project geotechnical consultant prior to placing any fill.	
MM-GEO-8		Slope Stability: All slopes will require maintenance to reduce the risk of erosion and degradation with time due to natural or man-made conditions. Future performance of slopes will depend on the control of burrowing animals and maintenance of brow ditches, drainage structures, and slope vegetation.	
MM-GEO-9		Slope Stability: All graded or exposed natural slopes shall be maintained with dense, deep rooting (minimum two feet deep), drought resistant ground cover and shrubs or trees. A reliable irrigation system shall be installed on the slopes where necessary, adjusted so over watering does not occur, and periodically checked for leakage. Care shall be taken to maintain a uniform, near optimum moisture content in the slopes, and to avoid over drying, or excess irrigation. Excess watering of slopes shall be avoided to reduce the risk of erosion and surficial failures. Slopes shall not be watered before forecasted rain.	
MM-GEO-10		Slope Stability: All drainage structures shall be kept in good condition and clean the entire length to the outlet. Final grading of the site shall provide positive drainage away from slopes, and water shall not be allowed to pond or gather in a slope area. Burrowing animals, particularly ground squirrels, can destroy slopes; therefore, where present, immediate measures shall be taken to evict them with an ongoing program to maintain slope stability.	
MM-GEO-11		Differential Fill and Settlement/Landslides: On-site materials obtained from excavations may be used as fill soils. Fill soils shall be free of all deleterious materials including trash, debris, organic matter, and rocks larger than six (6) inches. Fill soils shall be placed in thin uniform lifts not exceeding 10 inches of uncompacted thickness, brought to two (2) percent over the optimum moisture content, and compacted to a minimum of 90 percent relative compaction. The need for import fill is not anticipated. However, if needed, sources of import fill shall be approved by the Project geotechnical consultant prior to transport of materials to the site.	
MM-GEO-12		Differential Fill and Settlement/Landslides: Remedial grading in the form of removals and re-compaction is recommended to prepare all building pad areas and those locations where cut slopes are required near potential landslide designated areas. Within areas of settlement sensitive structures and five (5) feet beyond, removal operations must remove any highly compressible upper native soils. Where fill thickness varies significantly or a transition condition exists under a structure, additional removals as recommended in the geotechnical investigation shall be	

Table ES-1 – Environmental Impacts and Mitigation Summary

Issues/Impacts	Impact Level Before Mitigation?	Summary of Mitigation Measures	Impact Level After Mitigation?
		performed to reduce the potential for differential movement.	
MM-GEO-13		Seismic Hazards – Expansive Soils: Expansion tests shall be performed at the finish grade materials at the conclusion of grading for each building pad area.	
MM-GEO-14		Seismic Hazards – Expansive Soils: Information regarding the care and maintenance of improvements located on expansive soils shall be passed on to future owners of the property.	
MM-GEO-15		Erosion: Grading shall be scheduled for completion prior to the start of the rainy season, or detailed temporary erosion control plans shall be filed in a manner satisfactory to the City of Palmdale Department of Public Works.	
MM-GEO-16		Erosion: Any dirt or other material deposited on the roadways from construction operations shall be removed by the developer on a timely and regular basis.	
MM-GEO-17		Erosion: Site grading areas shall be watered during grading and before landscaping on a regular basis to reduce fugitive dust generation.	
MM-GEO-18		Loosely Consolidated Soils: Cut lots which expose highly sheared material, shall be over excavated and replaced with compacted fill to mitigate any potential settlement impacts associated with expansive or loose unconsolidated soils.	
MM-GEO-19		Settlement: Backfill in the exploratory trenches on site shall be removed and recompacted in areas of shallow cuts or areas to receive fill to mitigate any potential settlement impacts.	
MM-GEO-20		Settlement: The cut portion of building pads crossed by cut/fill daylight lines shall be over excavated to a minimum depth of three (3) feet and replaced with a compacted blanket fill in order to mitigate any potential settlement impacts.	
MM-GEO-21		Liquefaction: Positive drainage shall be consistently provided and maintained away from all structures. Drainage shall not be changed creating an adverse drainage condition.	
MM-GEO-22		Liquefaction: Landscape watering shall be held to a minimum. Sprinkler systems shall be maintained and plumbing leaks shall be immediately repaired to the subgrade soils underlying or adjacent to the structures do not become saturated. They should also have maximum uniform coverage with a minimum amount of water usage and overlap. Trees shall be spaced so that roots will not extend under foundations or slabs.	
MM-GEO-23		Liquefaction: Water shall not be allowed to pond or accumulate around the pool decking allowing water migration into the subgrade. All pool hardware fittings shall be adequately water tight, and caulking shall be maintained between hardscape joints and the interfaces between the hardscape and the adjoining house.	
MM-CR-1		Paleontological Resources: A qualified principal investigator for archaeology and paleontology will be retained to provide professional services. The principal investigator will be responsible to implement the Mitigation Plan and maintain professional standards of work. Development of a Treatment Plan is recommended to avoid construction delays.	
MM-CR-6		Paleontological Resources: If microfossil localities are discovered, the monitor will collect matrix for processing. In order to limit downtime, the monitor may request heavy machinery assistance to move large quantities of matrix out of the path of construction to designated stockpile areas. Testing of stockpiles will consist of screen washing small samples (200 pounds) to determine if fossils are present. Productive tests will result in screen washing of additional matrix from the stockpiles to a maximum of 6,000 pounds per locality.	
GREENHOUSE GAS EMISSIONS			
None		No mitigation measures are required because no significant impacts related to Greenhouse Gas Emissions have been identified. Compliance with City of Palmdale General Plan policies would contribute to ensuring any Project-related impacts to	

Table ES-1 – Environmental Impacts and Mitigation Summary			
Issues/Impacts	Impact Level Before Mitigation?	Summary of Mitigation Measures	Impact Level After Mitigation?
	Greenhouse Gas Emissions would be maintained at a less than significant level.		
HAZARDS AND HAZARDOUS MATERIALS			
MM-HAZ-1	If evidence of subsurface soil contamination is discovered during future soil moving activities, the soil shall be properly removed from the Project site and transported to an appropriate off-site facility under the direction of a qualified environmental consulting firm.		
MM-HAZ-2	A site plan review should be requested from the California Division of Oil, Gas and Geothermal Resources to determine if any investigations, re-abandonment or mitigation is required. Documentation of the precise locations of the oil wells will be required as one of the initial steps in the abandonment/documentation process with the Division. It is likely the California Division of Oil, Gas and Geothermal Resources will require that the wells be re-abandoned to current standards.		
MM-HAZ-3	Soil technicians associated with future grading activities should be informed that minor spills could be discovered, as well as casing and slugs from spent ammunition. If any are observed, a properly experienced environmental consulting firm should be contacted to recommend appropriate action.		
MM-HAZ-4	Prior to issuance of any building permits, the Applicant/Developer shall submit a Fuel Modification Plan to the City of Palmdale Community Development Director and Public Works Director for review and approval in consultation with the Los Angeles Fire Department. The Fuel Modification Plan must be in substantial conformance with the City Council-approved Quail Valley Planned Development Fuel Modification Plan.		
HYDROLOGY AND WATER QUALITY			
None	No Mitigation Measures are required beyond the Project design features and adherence to the Best Management Practices stipulated in the Hydrology Study prepared for the Project.		
LAND USE AND PLANNING			
None	No mitigation measures are required because no significant impacts related to Land Use and Planning have been identified. Compliance with City of Palmdale General Plan policies would contribute to ensuring any Project-related impacts to Land Use and Planning would be maintained at a less than significant level.		
MINERAL RESOURCES			
None	No mitigation measures are required because no significant impacts related to Mineral Resources have been identified. Compliance with City of Palmdale General Plan policies would contribute to ensuring any Project-related impacts to Mineral Resources would be maintained at a less than significant level.		
NOISE			
MM-N-1	Short-Term Impacts – Construction Noise All construction activities within 200 feet of the residences on the westerly side of Tovey Avenue shall be limited to the hours between 7:00 a.m. and 7:00 p.m., Monday through Saturday. Construction activities for the balance of the Project shall be limited to the hours of 6:30 a.m. and 8:00 p.m., Monday through Saturday. Construction shall be prohibited during all other time periods and all day on Sundays and legal holidays. The contractor shall conduct construction activities in such a manner that the maximum noise levels at the affected buildings will not exceed those listed in Section 12.08.440(B)(1) of the County of Los Angeles Noise Ordinance.		
MM-N-2	Long-Term On-Site Impacts – Roadway Noise Prior to issuance of building permits, an acoustical analysis or a detailed acoustical study, if warranted based on post-grading conditions, shall be prepared by a qualified acoustical consultant and submitted to the City of Palmdale. The report shall describe and quantify noise sources impacting the lots on the north side of the Project		

Table ES-1 – Environmental Impacts and Mitigation Summary

Issues/Impacts	Impact Level Before Mitigation?	Summary of Mitigation Measures	Impact Level After Mitigation?
	adjacent to Avenue S, and the measures required to meet the appropriate exterior noise standard at these lots.		
POPULATION AND HOUSING			
None	No mitigation measures are required because no significant impacts related to Population and Housing have been identified. Compliance with City of Palmdale General Plan policies would contribute to ensuring any Project-related impacts to Population and Housing would be maintained at a less than significant level.		
PUBLIC SERVICES			
None	No mitigation measures are required because no significant impacts related to Public Services have been identified. Compliance with City of Palmdale General Plan policies would contribute to ensuring any Project-related impacts to Public Services would be maintained at a less than significant level.		
RECREATION			
None	No mitigation measures are required because no significant impacts related to Recreation have been identified. Compliance with City of Palmdale General Plan policies would contribute to ensuring any Project-related impacts to Recreation would be maintained at a less than significant level.		
TRANSPORTATION			
MM-TR-1	<p>Prior to issuance of a Building Permit, the Project Applicant/Developer(s) shall pay proportionate shares of improvement costs, pursuant to the City of Palmdale Traffic Impact Fee schedule, as determined by the City Engineer.</p> <p>Mitigation is required when project VMT is expected to cause a significant transportation impact under CEQA. For land development projects, VMT mitigation focuses on measures that reduce the number and length of project-generated single-occupant vehicle trips. A minimum reduction of 30 percent in Project VMT is needed to achieve a less than significant impact. The 2021 Ruettgers & Schuler VMT Impact Analysis states that potentially feasible mitigation measures for land development projects include the following: changing project land use; implementing Transportation Demand Management (TDM) Strategies; and, adding off-site improvements.</p> <p><i>Alternative Land Uses</i></p> <p>The CAPCOA handbook for analyzing greenhouse gas emission reductions (December 2021) contains 34 “quantitative GHG reduction measures listed for the transportation sector. However, as Ruettgers & Schuler have indicated “it appears that only the seven below could be applied at the project/site “scale” for a residential project located in a suburban ‘context’.”</p> <ul style="list-style-type: none">• Increase Residential Density• Provide Transit-Oriented Development• Integrate Affordable and Below Market Rate Housing• Provide Ridesharing Program• Implement Subsidized or Discounted Transit Program• ‘Limit Residential Parking Supply• Unbundle Residential Parking Costs from Property Costs <p>Ruettgers & Schuler further states that only an increase in residential density could be applied to the Quail Valley Project, based on “implementation requirements” city for each measure, which addresses VMT reduction achieved when a project has a</p>		

Table ES-1 – Environmental Impacts and Mitigation Summary

Issues/Impacts	Impact Level Before Mitigation?	Summary of Mitigation Measures	Impact Level After Mitigation?
		<p>residential density greater than the “blended” average for a “typical development” in the United States. The national average is 9.1 dwelling units per acre (which includes single-family residential dwellings, apartments, condominiums, and townhomes). Area A of the Quail Valley Project will have a residential density of 1.6 dwelling units per acre (and lower if the entire 878.1-acre Project site is considered).</p> <p>Therefore, since the Quail Valley residential density is lower than the national average, “there would be no GHG emissions reduction benefit, and therefore, no project VMT reduction’ co-benefit’.”</p> <p>Furthermore, incorporating alternative project land uses to reduce the number of external Project trips was investigated. Alternative land uses are not feasible on the Quail Valley Project site for the following reasons:</p> <ul style="list-style-type: none"> • The Project site is zoned for residential use. • The area closest to Avenue S, which would be the most likely location for commercial or other land uses, is adjacent to existing residential development. • The Project site is remote from existing commercial or office commercial development centers. • The Project has very limited frontage on Avenue S, which is comprised of a detention basin that is not able to be relocated. • There is a major dual gas line easement along Avenue S that requires a greater setback from Avenue S. <p><i>TDM Strategies</i></p> <p>Although TDM strategies reduce VMT through incentives and disincentives often related to cost and convenience of vehicle travel, according to Los Angeles County Guidelines the effectiveness of TDM strategies in reducing project VMT must be supported with substantial evidence. The California Air Pollution Control Officers Association (CAPCOA) in 2010 published “Quantifying Greenhouse Gas Mitigation Measures, A Resource for Local Government to Assess Emission Reductions from Greenhouse Gas Mitigation Measures. This report provides assumptions, limitations, and methodologies for quantifying effectiveness of VMT mitigation measures.</p> <p>TDM strategies are among the most effective VMT mitigators. However, Quail Valley Project location mitigation subcategory and global maximum VMT reduction allowed by CAPCOA all limit what VMT mitigation can be accomplished. The Quail Valley Project does include some VMT reduction strategies, such as robust pedestrian and bicycle trail systems. However, Ruetters & Schuler state that “even if all feasible TDM strategies in the CAPCOA Report were implemented by the project, and the effectiveness of each such strategy were supported with substantial evidence, the maximum allowable reduction in project VMT would be capped at 15 percent (global maximum for suburban projects), which is half of what is needed to reduce the impact of project VMT to a less than significant level.”</p> <p><i>Off-Site Improvements</i></p> <p>Adding improvements to the transportation system in the Project site vicinity support</p>	

Table ES-1 – Environmental Impacts and Mitigation Summary

Issues/Impacts	Impact Level Before Mitigation?	Summary of Mitigation Measures	Impact Level After Mitigation?
		<p>alternate modes of transportation with the goal of reducing VMT by encouraging a mode shift in Project trips to transit, bicycling, or walking. However, Ruettgers & Schuler state that “substantial evidence would be needed to support the effectiveness of off-site improvements in reducing project VMT.”</p> <p>Ruettgers & Schuler thereby conclude as follows: “even if all available mitigation measures were implemented, the project will still be expected to result in a significant transportation impact under CEQA for VMT.”</p>	
TRIBAL CULTURAL RESOURCES			
MM-TCR-1		A qualified principal investigator for archaeology and paleontology will be retained to provide professional services. The principal investigator will be responsible to implement the Mitigation Plan and to maintain professional standards of work. Development of a Treatment Plan is recommended to avoid Project construction delays.	
MM-TCR-2		The principal investigator and designated Native American representative will present background information to all attendees at the pre-grade meeting. Any new excavation personnel hired after this date will be presented the background information by the archaeological and Native American monitors.	
MM-TCR-3		The rock art site (CA-LAN-3343) will be preserved in place. During construction, it shall be fenced off with snow fencing placed 50 feet from the boulder complex and be a designated Environmentally Sensitive Area. After construction it may be necessary to obscure the view of the boulder with native plants.	
MM-TCR-4		Under the direction of the principal investigator, qualified archaeological monitors will perform full-time monitoring of brush clearing, surface scraping, construction grading, and excavation in native sediments. Native American monitors shall work alongside the archaeological monitors. One archaeological monitor and one Native American, will be assigned to each disparate grubbing/vegetation removal area. During periods of large area grubbing or cut-fill operations where excavations are spread out and not centrally observable by one team, this may require up to one team per equipment operator. The monitoring team will not circulate between disparate operating equipment while they are actively engaged in ground-disturbing activity. In areas undergoing repetitive removals in concentrated areas (such as with repetitive “scraper” passes in a concentrated area during over-excavation removals), the number of teams required will be established by the principal investigator to insure adequate observation during excavation activities. Should excavation proceed to depths where Pleistocene sediments occur, a qualified paleontologist should monitor those portions of the Project. Monitoring will include inspection of exposed surfaces and microscopic examination of matrix. The monitor will have authority to divert grading away from exposed resources temporarily in order to recover the specimens. Cooperation and assistance from on-site personnel will greatly assist timely resumption of work in the area of the discovery.	
MM-TCR-5		If the discovery meets the criteria for (1) human bone, (2) an archaeological site or (3) a fossil locality, then work will be diverted and a localized, temporary ESA will be established with a radius of 100 feet. The Cultural Resources Field Supervisor or principal investigator will evaluate the discovery. Notifications of discoveries will be sent within 24 hours to the client, consulting tribes and the City of Palmdale. Sites and localities require documentation including location and stratigraphic information. Decisions about testing and data recovery will be made in consultation with the client, consulting Tribes and the City of Palmdale. Digital copies of all documents and records regarding cultural discoveries shall be provided to the Tribes. Work may continue outside a 100-foot perimeter of the discovery.	

Table ES-1 – Environmental Impacts and Mitigation Summary

Issues/Impacts	Impact Level Before Mitigation?	Summary of Mitigation Measures	Impact Level After Mitigation?
MM-TCR-6		Materials meeting significance criteria under CEQA will be prepared, identified, and cataloged using tags. No cultural materials will be altered (such as having numbers placed on them) pending decisions on the fate of the collection. The City of Palmdale and the Project proponent will consult with the Tribes regarding disposition of the collection. This may include reburial or donation to the accredited repository. The Project proponent is responsible for any curation fees.	
MM-TCR-7		The principal investigator will prepare monthly progress reports to be filed with the client, the City of Palmdale and any tribes who request continuing consultation. The principal investigator will prepare a final digital report to be filed with the client, the City of Palmdale, the Tribes and the California Historic Resources Information System. The report will include a list of resources recovered, documentation of each site/locality, interpretation of resources recovered and will include all specialists' reports as appendices. The Project proponent is responsible for costs of the Mitigation Program.	
MM-CUL-3		The rock art site shall be preserved in place. During Project development it shall be fenced off with snow fencing placed 50 feet from the boulder complex and be considered a designated Environmentally Sensitive Area.	
MM-CUL-4		Under the direction of the Principal Investigator, qualified archaeological monitors shall perform full-time monitoring of brush clearing, surface scraping, construction grading, and excavation in native sediments. Native American monitors shall work alongside the archaeologist monitors. One archaeological monitor and one Native American shall be assigned to each disparate grubbing/vegetation removal area. During periods of large area grubbing or cut-fill operations where excavations are spread out and not centrally observable by one team, this may require up to one team per operator. The monitoring team shall not circulate between disparate operating equipment while they are actively engaged in ground-disturbing activity. In areas undergoing repetitive removals in concentrated areas (such as with repetitive "scraper" passes in a concentrated area during over-excavation removals), the number of teams required shall be established by the Principal Investigator to ensure adequate observation during excavation activities. Should excavation proceed to depths where Pleistocene sediments occur, a qualified paleontologist should monitor those portions of the Project. Monitoring will include inspection of exposed surfaces and microscopic examination of matrix. The monitor will have authority to divert grading away from exposed resources temporarily to recover the specimens. Cooperation and assistance from on-site personnel will greatly assist timely resumption of work in the area of the discovery.	
MM-CUL-5		If the discovery meets the criteria for (1) human bone, (2) an archaeological site or (3) a fossil locality, then work shall be diverted and a localized, temporary ESA will be established with a radius of 100 feet. The Cultural Resources Field Supervisor or Principal Investigator will evaluate the discovery. Notifications of discoveries will be sent within 24 hours to the client, consulting tribes and the City. Sites and localities require documentation including location and stratigraphic information. Decisions about testing and data recovery will be made in consultation with the client, consulting Tribes and the City. Digital copies of all documents and records regarding cultural discoveries shall be provided to the Tribes. Work may continue outside a 100-foot perimeter of the discovery.	
TR-CUL-6		If microfossil localities are discovered, the monitor will collect matrix for processing. In order to limit downtime, the monitor may request heavy machinery assistance to move large quantities of matrix out of the path of construction to designated stockpile areas.	
TR-CUL-7		Materials meeting significance criteria under CEQA shall be prepared, identified,	

Table ES-1 – Environmental Impacts and Mitigation Summary

Issues/Impacts	Impact Level Before Mitigation?	Summary of Mitigation Measures	Impact Level After Mitigation?
		and cataloged using tags. No cultural materials will be altered (such as having numbers placed on them) pending decisions on the fate of the collection. The City will consult with the Tribes regarding disposition of the collection. This may include reburial or donation to the accredited repository. The Project proponent is responsible for any initial curation fees.	
TR-CUL-8		The principal investigator shall prepare monthly progress reports to be filed with the client, the City and any tribes who request continuing consultation. The Principal Investigator shall prepare a final digital report to be filed with the client, the City, the Tribes, and the California Historic Resources Information System. The report shall include a list of resources recovered, documentation of each site/locality, interpretation of resources recovered and shall include all specialists' reports as appendices. The Project proponent is responsible for any initial curation fees.	
UTILITIES AND SERVICE SYSTEMS			
None		No mitigation measures are required because no significant impacts related to Utilities and Service Systems have been identified. Compliance with City of Palmdale General Plan policies would contribute to ensuring any Project-related impacts to Utilities and Service Systems would be maintained at a less than significant level.	
WILDFIRE			
MM-WF-1		Prior to issuance of any building permits, the Applicant/Developer shall submit a project specific Fire Protection Plan to the City of Palmdale Planning Manager and Public Works Director for review and approval in consultation with the Los Angeles Fire Department. The plan will incorporate standards for construction, including a zoned fuel modification program to reduce the threat of wildfires, and other elements necessary to comply with City and Fire Department regulations.	

Table ES-3 – Goals, Policies, Regulations

AESTHETICS
Circulation Element Objective C1.9: Plan for the development of arterial streetscapes which present an aesthetically pleasing appearance, promote ease of use for pedestrian and non-motorized as well as vehicular traffic, and provide maximum public safety through design features.
Environmental Resources Element Objective ER1.2: Protect scenic viewsheds both to and from the City of Palmdale.
Environmental Resources Element Policy ER1.2.1: New development with the potential to substantially obscure or negatively alter the scenic backdrop to the City should be discouraged. "Scenic backdrop" refers to the significant ridgelines of the San Gabriels, the Sierra Pelona and the Ritter and Portal Ridges that form the City's skyline views.
Environmental Resources Element Goal ER3: Preserve designated natural hillsides and ridgelines in the Planning Area, to maintain the aesthetic character of the Antelope Valley.
Environmental Resources Element Objective ER3.1: Establish a systematic approach to the management of land uses and development in hillside areas.
Environmental Resources Element Policy ER3.1.1: Density of development shall respect and be reflective of the natural terrain, so that steeper sites are not developed to the same density/intensity as flatter sites.
Environmental Resources Element Policy ER3.1.2: Adopt grading standards that respect the natural terrain, minimize earth moving activity, minimize visual effects of large cut and fill slopes, and provide for the preservation of unique and significant natural landforms where feasible.
Environmental Resources Element Policy ER3.1.3: Require water-conserving revegetation of disturbed hillside areas, through standards for slope replanting and grading patterns that reduce manufactured slopes.
Environmental Resources Element Policy ER3.1.5: Retain the integrity of the natural ridgelines of Ritter Ridge, Portal Ridge, Verde Ridge, the Ana Verde Hills, the Sierra Pelona Mountains, and the lower foothills of the San Gabriel Mountains.
Environmental Resources Element Policy ER4.2.1: Promote water conserving landscape techniques, through the use of native and drought tolerant plant species and landscape design standards.
Environmental Resources Element Policy ER4.2.2: Utilize native plants or drought resistant planting materials and drip irrigation systems where feasible within the Landscape Assessment District areas.
Environmental Resources Element Policy ER5.2.2: Encourage developers to maintain natural contours to the greatest degree possible, to eliminate the need for extensive land clearing, blasting, ground excavation, grading and cut and fill operations.
Land Use Element Policy L3.4.1: Encourage flexible siting and design techniques and density transfers in hillside or physically constrained areas to preserve steep slopes or unique physical features.
Land Use Element Policy L3.4.4: Encourage subdivision design techniques that reflects underlying physical topography. Density and intensity of development should decrease as slope steepness increases.
Public Services Element Goal PS7: Provide for open space elements throughout the planning area which preserve significant natural, historic, scenic and topographic features while minimizing fiscal impacts to the City and its residents.
Community Design Element Goal CD 1: Create and maintain a well-designed built environment for the City of Palmdale, which contributes to the community's economic vitality and enhances the quality of life for its residents.
Community Design Element Objective CD 1.1: Consider the relationship of each development project to its setting.
Community Design Element Policy CD 1.1.1: Each project should reflect and be integrated with the character and design of the surrounding area, with respect to such design elements as size, shape, massing, setbacks, orientation, architecture, colors and landscaping.
Community Design Element Policy CD 1.1.3: Site design should be integrated with infrastructure systems of the surrounding area, including street patterns, trails and open space, drainage and utility systems.
Community Design Element Objective CD 1.2: New development should contribute to the community character through distinctive design and quality workmanship.
Community Design Element Policy CD 1.2.1: Development projects should project an identifiable character in keeping with the community, through the following means: <ol style="list-style-type: none"> 1. Use of unique architectural or site design features appropriate for Palmdale, a desert city; 2. Use of recognizable design elements from the surrounding neighborhood or vicinity which create continuity

Table ES-3 – Goals, Policies, Regulations

<p>of design for the area;</p> <p>3. Orientation to a focal point on site or within the vicinity;</p> <p>4. Avoidance of the use of corporate architecture prototypes where such designs conflict with established neighborhood character.</p>
Community Design Element Policy CD 1.4.1: Site designs should function well for site users, including both pedestrian and vehicular traffic, as well as bypassing traffic.
Policy CD 1.4.2: Site design should create a sense of order by orienting buildings and site features based on the geometry of adjacent streets and other significant site features; in general, buildings should be parallel to the street(s) they face.
Policy CD 1.4.4: Site entry points and access ways should be emphasized to guide people to their destinations.
Policy CD 1.4.5: Pedestrian walkways should be provided to connect uses within and adjacent to each development.
Policy CD 1.4.6: Site design shall comply with handicapped access requirements and provide a convenient circulation system for people with disabilities.
Objective CD 1.5: Functional public spaces should be created within development projects.
Policy CD 1.5.1: The relationship between buildings and spaces within a development project should be evaluated to ensure that space is usable and not devoid of purpose; space should be organized to create a setting which is functional and supportive to the needs of pedestrians and/or vehicles, and dead spaces should be avoided.
Policy CD 1.5.2: Open public spaces should be easily accessible, permit circulation connectivity throughout the site, and foster interaction of site users.
Community Design Element Objective CD 1.6: Development should be designed to encourage and facilitate interaction of people and neighborhoods, rather than to create barriers between them.
Policy CD 1.6.1: Development designs should create places for people to gather and interact.
Policy CD 1.6.2: Use of barriers within and between developments should be avoided in favor of interconnected access points where appropriate.
Policy CD 1.6.3: Designs shall incorporate pathways between and among uses or neighborhoods to the extent feasible.
Policy CD 1.7.3: Promote use of construction and design features for sound attenuation, where needed to reduce noise impacts to acceptable levels as specified in Policy N1 .2.3 in the Noise Element.
Objective CD 1.8: The built environment should provide a visually interesting and stimulating setting by using varied physical forms and details which contribute to Palmdale's sense of place.
Policy CD 1.8.1: Site and building designs should incorporate a blend of various forms, materials, colors and architectural details which are appropriate for Palmdale's setting, history, form and community.
Policy CD 1.8.2: Use of diverse design techniques should achieve a balance; too much variety in architectural treatment may appear confusing or over-ornamented, while too little variety may result in a sterile or regimented appearance.
Policy CD 1.8.3: Design elements should be incorporated into the architecture of the building, rather than added onto the building's facade as trim.
Policy CD 1.8.4: Architectural treatment should be included on all sides of buildings, rather than on the front or street side only, except as otherwise permitted in industrial areas. (General Plan Amendment 97-2 adopted by City Council June 11, 1997.)
Policy CD 1.8.5: Changes of building forms and spaces created between buildings should be used to create a sense of interest in the site design.
Policy CD 1.8.6: Variety and contrast of elements should be used to enhance visual interest in development projects.
Policy CD 1.8.7: Development projects should be visually interesting and attractive for both site users and observers from adjacent streets and properties.
Objective CD 1.9 (General Plan Amendment 97-2 adopted by City Council June 11, 1997.): Create an attractive environment for living, working and shopping, through adequate screening of equipment, utilities, loading and trash collection areas.
Community Design Element Policy CD 1.9.1: In single family residential development, utility lines should be placed underground and utility boxes should be placed in inconspicuous locations and screened from adjacent rights-of-way with landscaping. Any roof mounted equipment must be screened from the public right-of-way.

Table ES-3 – Goals, Policies, Regulations

(General Plan Amendment 97-2 adopted by City Council June 11, 1997.)
Community Design Element Policy CD 1.10.3: Promote the use of smaller, interconnected open space areas, which are more effective in encouraging outdoor use than large expanses of space in which people feel less secure.
Community Design Element Objective 2.2: Integrate the built environment with the natural environment.
Community Design Element Policy CD 2.2.1: Require drought tolerant vegetation and water conserving irrigation systems within landscaping themes for new development.
Community Design Element Policy CD 2.2.5: Landscape design should improve the environment within and adjacent to new developments by reducing heat, glare and noise, and by promoting ground water recharge, retardation of storm water runoff, and improvement of air quality.
Community Design Element Policy CD 2.2.6: Design of new developments should provide buffering and screening between natural and built environments, where appropriate.
Community Design Element Policy CD 2.2.7: Landscape and grading plans for new development should limit removal of viable mature trees, and provide for replacement of a sufficient number of trees to safeguard the ecological and aesthetic environment.
Community Design Element Policy CD 2.2.8: Site grading should match slopes and topographic features of the adjacent area, avoiding abrupt or unnatural changes of grade.
Community Design Element Objective CD 2.3: Emphasize and preserve the natural amenities and cultural features within Palmdale which contribute to the community's identity.
Community Design Element Policy CD 2.3.1: Ensure that the hillsides bordering the south side are maintained as a distinctive scenic backdrop for the City, through implementation of hillside management and grading policies contained in the General Plan and applicable ordinances.
Community Design Element Policy CD 2.3.3: Protect and enhance significant vistas and panoramas within the City of surrounding mountains, open space areas, and special landmarks, including but not limited to the following: <ol style="list-style-type: none"> 1. Views of Lake Palmdale, Una Lake and Barrel Springs; 2. Views of the valley floor from hillside areas, including hillside roadways; 3. Views from scenic corridors, as identified in the Environmental Resources Element.
Community Design Element Policy CD 2.3.4: Protect views of scenic areas from existing development, and enhance views for new development wherever feasible, through the following means: <ol style="list-style-type: none"> 1. Require open view fencing (such as wrought iron with pilasters) instead of solid masonry walls where subdivision perimeter walls abut scenic roadways, to the extent feasible; 2. Ensure that new structures within subdivisions do not obscure significant scenic views from uphill development, to the extent feasible; 3. Prohibit new billboards along designated scenic roadways; 4. Ensure that new development in locations which are highly visible from hillside areas and/or scenic roadways maintains a high quality of design and construction. 5. Promote the use of view fencing in hillside residential areas to protect good views for all residences, to the extent feasible.
Community Design Element Policy CD 2.5.1: Establish appropriate design standards for urban, suburban and rural lifestyles.
Community Design Element Policy CD 2.5.2: Recognize neighborhoods having a distinctive character, and encourage them to develop their own identity through use of appropriate design standards.
Community Design Element Goal CD 3: Recognize and maintain the rural character of large-lot residential development within the planning area, through establishment of rural development standards appropriate for these areas.
Community Design Element Objective CD 3.1: Establish street design and construction standards appropriate for rural residential areas where the predominant lot size is one acre (net) or larger.
Community Design Element Policy CD 3.1.2: Coordinate street design with adopted trail plans in conformance with the Park, Recreation and Trail Element of the General Plan.
Community Design Element Policy CD 3.2.2: Where lower density residential development faces higher densities across a street, lot widths and frontages on both sides of the street should be compatible to the extent feasible; wider lot widths on the smaller lots may be required to maintain continuity along the street frontage.
Community Design Element Policy CD 3.3.1: Trail connections from residential subdivisions to local, feeder and regional trails should be provided in order to connect discontinuous trails and provide access to recreation facilities.

Table ES-3 – Goals, Policies, Regulations

Community Design Element GOAL CD 4: Promote safe, functional, attractive single-family residential neighborhoods, integrated with the surrounding community, and easily accessible by multiple transportation modes.
Community Design Element Policy CD 4.1.2: Corner lots shall be wider than interior lots.
Community Design Element Policy CD 4.1.3: Subdivision design shall avoid the following lot types, to the extent feasible: long flag lots; double frontage lots on interior streets; lots which side onto the rear of other lots; lots which share common property lines with several other lots; and key lots.
Community Design Element Policy CD 4.1.5: Where curvilinear street alignments are used on residential streets, resulting lot sizes and frontages shall be generally uniform.
Community Design Element Policy CD 4.1.6: Any fencing, retaining walls, slopes, landscaping and other features shall be located in a manner which provides adequate driver sight distance at intersections and driveways.
Community Design Element Policy CD 4.1.9: Property lines should be located at the top of rear and interior side yard manufactured slopes so as to provide for ease of maintenance.
Community Design Element Policy CD 4.1.10: Rear yards containing manufactured slopes shall be designed to avoid adverse impacts on residents, through the following means: <ol style="list-style-type: none"> 1. Rear yards shall be of adequate depth to provide usable yard area and adequate room for accessory structures, exclusive of slope area. 2. Grading, plotting and architectural means to limit rear yard slope heights shall be encouraged.
Community Design Element Policy CD 4.1.11: Subdivision design shall minimize land use conflicts with adjacent uses through placement of streets, parkways, open spaces, greenbelts, landscaping and trails, rather than through creation of tall perimeter walls.
Community Design Element Objective CD 4.2: In residential subdivisions, promote diversity within the context of an overall design theme, to provide a visually attractive neighborhood which relates well with its surroundings.
Community Design Element Policy CD 4.2.3: Architecture should be compatible with the character of the surrounding neighborhood, considering building style, form, height, size, color, material and roofline.
Community Design Element Policy CD 4.2.6: Exterior building designs of houses within a neighborhood should achieve a consistent level of quality.
Community Design Element Objective CD 4.3: Arterial and collector streets serving residential neighborhoods should contain varied streetscapes and views.
Community Design Element Policy CD 4.3.2: Subdivision design should avoid street and lot patterns which necessitate creation of long, unbroken perimeter walls lining arterial and collector streets, through the following means: <ol style="list-style-type: none"> 1. Subdivision design shall alleviate the need to construct perimeter walls of excessive height for noise attenuation through use of alternate sound attenuation techniques, including increased building setbacks, combinations of walls and landscaped berms, or other approved methods. 2. Side-on cul-de-sacs should be used adjacent to arterial streets to provide pedestrian access and view corridors between the subdivision and the arterial. 3. Where fencing is used adjacent to a side-on cul-de-sac, open fencing such as wrought-iron with decorative pilasters should be used to provide view corridors. Decorative open fencing should be used adjacent to subdivisions instead of block walls wherever practicable. 4. Variation should be provided in the width of landscape easements and/or landscape setbacks, to reduce the effect of an otherwise long, unbroken streetscape. 5. Variations and undulations in plant massing should be used to create a sense of interest along the street. 6. Meandering sidewalks may be used in combination with landscaping to provide interest in the streetscape, provided that design of meanders is irregular and uses both vertical and horizontal elements to achieve a natural look.
Community Design Element Objective CD 4.4: Fences and walls within residential areas should contribute to the neighborhood identity and enhance community design.
Community Design Element Policy CD 4.4.3: Retaining walls exposed to public view shall be of decorative masonry construction. Where these walls are of substantial height, crib walls with landscaping may be required, subject to approval of the City Engineer. Plant material selection and planting should encourage the covering of the crib wall, either through vine-like plant material or large evergreen trees and shrubs that provide screening in front of the crib wall.
Community Design Element Policy CD 4.4.4: Fencing along residential property lines may be wrought iron to maintain views, where appropriate.

Table ES-3 – Goals, Policies, Regulations

Community Design Element Objective CD 4.5: Residential neighborhoods shall be integrated with interconnected networks linking parks, schools, services and other neighborhoods.
Community Design Element Policy CD 4.5.1: Subdivision design shall provide connectivity within and between neighborhoods, rather than creating isolation through street design and perimeter walls.
Community Design Element Policy CD 4.5.2: Reasonable crossing paths shall be provided through residential neighborhoods.
Community Design Element Policy CD 4.5.4: New development should consider existing travel routes through the property, and incorporate alternative routes where feasible to provide necessary connections to community facilities.
Community Design Element Policy CD 4.5.5: Developments adjacent to regional trails shall provide a means of public access from residential lots to the trail system.
Community Design Element Policy CD 4.5.6: Development shall facilitate convenient access to parks, playgrounds and schools.
Community Design Element Policy CD 4.5.7: Pedestrian accessways shall be designed with good visibility from adjacent properties and/or rights of way, to provide for safety of users.
Community Design Element Goal CD 8: Use landscaping to reinforce community identity, to create a pleasant environment, to control erosion and promote natural percolation of storm water, to provide protection from wind and hot summer sun, and to integrate new development into the surrounding district.
Community Design Element Objective CD 8.1: Landscape design shall consider prevalent and successful landscape themes in the surrounding area, through the following measures:
Community Design Element Policy CD 8.1.1: Plant materials should be of similar size, height and density as in the surrounding area.
Community Design Element Policy CD 8.1.2: Where appropriate, street trees may be the same species for the length of a street or throughout an entire area, to achieve a continuity of form.
Community Design Element Objective CD 8.2: Choice and placement of plant materials should reflect the context of the site.
Community Design Element Policy CD 8.2.1: Plants should be used to emphasize project and building entries; contrast with or reinforce building lines; soften hard lines, blank wall and pavement expanses; define outdoor spaces and delineate pathways; frame attractive views; and screen unattractive views and features.
Community Design Element Policy CD 8.2.2: Project entries and building entrances should be provided with special landscaping treatment, such as use of more intense planting, accent trees, raised planters and enhanced paving.
Community Design Element Policy CD 8.2.3: Plants should be selected for their year-round interest, as well as their form, texture and shape; simple plant palettes are preferred over complex schemes.
Community Design Element Policy CD 8.2.4: Size and spacing of landscape material should be consistent with the project size and relate well to the streetscape and adjacent properties.
Community Design Element Policy CD 8.2.5: Plant materials should be suitable for the desert environment and drought resistant, and should be grouped according to their watering needs.
Community Design Element Policy CD 8.2.6: At least fifty percent of the landscaped area should be covered with living groundcover, to minimize heat gain and reflective light; however, turf use should be minimized in favor of more drought resistant living groundcovers. Non-turf groundcover areas should be distributed in clusters, rather than uniformly, to be more in keeping with the natural desert environment.
Community Design Element Policy CD 8.2.7: The planting plan should call for mixed maturity of plant materials throughout the site.
Community Design Element Policy CD 8.2.8: The plant palette should consider safety and comfort of pedestrians. Plants that drop fruit, pods, bark, nuts or branches should be avoided, and trees with sharp edges such as Joshuas should be avoided in pedestrian areas.
Community Design Element Policy CD 8.2.9: A mix of evergreen and deciduous trees should be used along the streetscape for year-round interest. Evergreen trees should be used to block winter winds, screen unsightly features, and decrease heat loss.
Community Design Element Policy CD 8.2.10: Deciduous trees should be used on southern and western exposures for summer shade and winter sun.
Community Design Element Policy CD 8.2.12: Landscaping shall be maintained so as not to obstruct walkways;

Table ES-3 – Goals, Policies, Regulations

at least seven (7) feet of clear area shall be maintained underneath a tree canopy.

Community Design Element Objective CD 8.3: Hardscape may be included in the overall landscape design, based on the following criteria:

Community Design Element Policy CD 8.3.1: Use of unshaded pavement should be moderate, to alleviate heat gain.

Community Design Element Policy CD 8.3.2: Pavement materials should minimize reflected heat and glare, through selection of materials, colors and textures.

Community Design Element Policy CD 8.3.3: Where practicable, pavement materials which permit water infiltration should be used.

Community Design Element Policy CD 8.3.4: In pedestrian traffic areas, pavement should be stable, firm, skid resistant, and without irregular surfaces.

Community Design Element Objective CD 8.4: Landscape design shall be sensitive to the desert environment as well as unique aspects of the site with respect to phasing of development, location, and other site features.

Community Design Element Policy CD 8.4.2: For phased development, interim landscaping shall provide for control of dust and weeds on the undeveloped portion of the site, and provision shall be made for ongoing maintenance.

Community Design Element Policy CD 8.4.3: An effort should be made to minimize removal of mature natural vegetation where possible, where such vegetation is of significant size, beauty and value. Mature trees can be used as a focal point in the overall landscape plan. Where these trees are preserved, they shall be protected in place with no variation in the finish grade and no impervious materials under the drip line of the protected tree.

Community Design Element Policy CD 8.4.4: Landscaping shall be provided for erosion control where appropriate, as required in the City's Engineering Design Standards.

Community Design Element Policy CD 8.4.5: Areas preserved for drainage retention or detention shall be landscaped to integrate with the overall landscape design.

Community Design Element Policy CD 8.4.7: Areas preserved for drainage retention or detention shall be landscaped to integrate with the overall landscape design.

AGRICULTURE AND FORESTRY RESOURCES

No General Plan Goals, Objectives or Policies are relevant to the Quail Valley Project.

AIR QUALITY

Environmental Resources Element Goal ER5: Promote the attainment of state and federal air quality standard.

Environmental Resources Element Objective ER5.1: Minimize local air pollution caused by vehicles.

Environmental Resources Element Objective ER5.2: Minimize activities which generate dust, specifically particulates less than 10 microns in size (PM10).

Environmental Resources Element Objective ER5.3: Reduce and/or eliminate unnecessary sources of air pollution.

Environmental Resources Element Policy ER5.3.1: Promote the Antelope Valley Air Quality Management District's (AVAQMD) efforts to eliminate emissions from such sources as excessive car dealership cold starts, excessive curb idling, emissions from advertising vehicles, and emissions from leaf blowers, among others, through assisting with implementation and enforcement of district programs once they are adopted. (General Plan Amendment 04-01, adopted by City Council April 14, 2004.)

Environmental Resources Element Policy ER5.4.2: Through the environmental review process for new development applications, ensure that emissions of air toxins as defined by Antelope Valley Air Quality Management District are minimized. (General Plan Amendment 04-01, adopted by City Council April 14, 2004.)

Environmental Resources Element Policy ER5.3.3: Reduce reactive organic gas (ROG) and particulate emissions from building materials and construction methods, by promoting the use of nonsolvent-based, high-solid, or water-based coatings, and requiring compliance with all pertinent AVAQMD rules. (General Plan Amendment 04-01, adopted by City Council April 14, 2004.)

Environmental Resources Element Objective ER5.5: Reduce air pollution caused by energy consumption.

Environmental Resources Element Objective ER5.6: Minimize emissions from indirect sources such as

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commercial, residential and recreational development.
BIOLOGICAL RESOURCES
Environmental Resources Element Goal ER1: Preserve significant natural and man-made open space areas that give Palmdale its distinct form and identity.
Environmental Resources Element Objective ER1.1: Create and maintain an open space network throughout the City.
Environmental Resources Element Policy ER1.1.1: Utilize a variety of features, including entry points to the City, landscaped arterial roadways, bikeways, equestrian paths, hiking trails, and park sites, to create an open space network.
Environmental Resources Element Policy ER1.1.2: Provide for a network of open space by linking such areas wherever possible.
Environmental Resources Element Policy ER1.1.3: Incorporate the citywide multi-purpose trail network adopted under the Parks, Recreation and Trail Element of the General Plan into the regional trail system. (General Plan Amendment 04-01, adopted by City Council April 14, 2004.)
Environmental Resources Element Policy ER1.1.4: Implement the standards adopted under the City's Hillside Management Ordinance for new development including clustering and density transfer of housing units, in order to maintain areas of scenic and other open space within hillside areas. (General Plan Amendment 04-01, adopted by City Council April 14, 2004.)
Environmental Resources Element Goal ER2: Protect significant ecological resources and ecosystems, including, but not limited to, sensitive flora and fauna habitat areas.
Environmental Resources Element Policy ER2.1.5: Preserve and maintain significant Joshua tree woodlands and other significant habitat areas. Early in the review of development projects, the feasibility of preserving any significant vegetation present on-site should be examined.
Environmental Resources Element Objective ER2.2: Ensure local compliance with State and Federal Endangered Species Acts.
Land Use Element Policy L3.5.5: Require that development is designed to be sensitive to the preservation and protection of the desert environment and that building orientation and design consider and complement the natural characteristics of the desert environment.
Public Services Element Policy PS3.2.2: Where feasible, construct drainage facilities so as to protect or enhance natural riparian habitat areas.
Community Design Element Policy CD 1.3.4: Landscape design should ensure that the local stock of native trees and vegetation is replenished.
Community Design Element Policy CD 2.2.3: Promote incorporation of Joshua trees and other native vegetation within landscape areas where appropriate.
CULTURAL RESOURCES
Environmental Resources Element Goal ER7: Protect historical and culturally significant resources which contribute to the community's sense of history.
Environmental Resources Element Objective ER7.1: Promote the identification and preservation of historic structures, historic sites, archaeological sites, and paleontological resources in the City.
Environmental Resources Element Policy ER7.1.3: Require that new development protect significant historic, paleontological, or archaeological resources, or provide for other appropriate mitigation.
Environmental Resources Element Policy ER7.1.4: Develop and maintain a cultural sensitivity map. Require special studies/surveys to be prepared for any development proposals in areas reasonably suspected of containing cultural resources, or as indicated on the sensitivity map.
ENERGY
Environmental Resources Element Policy ER5.5.1: Encourage energy conservation from all sectors of the community by promoting the use of energy efficient appliances, processes and equipment, and promoting energy audits of existing structures.
Environmental Resources Element Policy ER5.5.3: Require that new construction promote the use of solar energy systems by providing maximum solar access.
GEOLOGY AND SOILS
Land Use Element Policy L1.4.2: Establish the following standards in and adjacent to Alquist-Priolo Earthquake Fault zones and other active fault zones as determined based on geotechnical analysis, in order to protect residents,

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property and infrastructure systems from damage by seismic activity: (General Plan Amendment 96-4, adopted by City Council April 9, 1997. General Plan Amendment 98-3, adopted by City Council June 10, 1998.)

1. Restrict development of habitable structures in these zones in accordance with requirements of State law.
2. Establish a maximum permitted density for all residentially-designated land between the outer boundaries of the Alquist-Priolo Earthquake Fault Zone of three (3) dwelling units per acre (gross) within the project site, except where the Land Use Map indicates lower densities in these areas. This policy specifically excludes any non-residential land uses within the project site from the calculation of density. (General Plan Amendment 96-4, adopted by City Council April 9, 1997. General Plan Amendment 98-3, adopted by City Council June 10, 1998.)
3. Require placement of roads, utilities and other infrastructure to be located outside of active fault zones, where feasible.
4. Establish a maximum floor area ratio (FAR) of .5 for new non-residential development within Alquist-Priolo Earthquake Fault Zones. (General Plan Amendment 98-3, adopted by City Council June 10, 1998.)

Land Use Element Policy L1.4.3: Establish the following standards for development in hillside areas:

1. Development in hillside areas should minimize grading, conform to natural topography, preserve ridgelines and exhibit sensitivity to natural landforms.
2. Development should be restricted on natural slopes of fifty percent and greater.
3. Visually prominent ridges and hillsides should be retained in a natural condition.
- 4. Flexibility in land use regulations may be permitted when it can be demonstrated that such flexibility will meet hillside management objectives.

Safety Element Objective S1.1: Review development within or adjacent to geologic hazards, to ensure adequate provisions for public safety.

Safety Element Policy S1.1.1: Provide copies of geotechnical reports for projects located within the seismic hazard zone, as shown on latest California Department of Conservation Seismic Hazard Zones Map, to the State Division of Mines and Geology. (General Plan Amendment 04-01, adopted by City Council April 14, 2004.)

Safety Element Policy S1.1.3: Require geotechnical studies, to be reviewed and approved by the City's geologist, for development proposals in areas where geotechnical hazards may be present, and implement the recommendations of those reports as deemed necessary by the City.

Safety Element Policy S1.1.8: Require that all structures should meet or exceed state required earthquake resistant design standards.

Safety Element Policy S1.1.9: Review development proposals located in or immediately adjacent to areas of soil instability, liquefaction areas, and steep slopes to determine if a significant constraint exists and to determine appropriate land use or hazard mitigation methods, and require compliance with any such measures identified.

Safety Element Policy S1.1.10: Develop and adopt hillside grading standards to minimize the hazards of erosion and slope failure.

GREENHOUSE GAS EMISSIONS

Environmental Resources Element Objective ER5.4: Minimize emissions of air toxins and pollutants which contribute to global warming and ozone depletion.

HAZARDS AND HAZARDOUS MATERIALS

Public Services Element Policy PS6.2.5: Facilitate the implementation of programs designed to provide for the safe management of hazardous wastes generated by small quantity generators, including households.

Public Services Element Policy PS6.2.6: Support the regulation and enforcement of hazardous waste laws governing the generation, handling, storage, transport, treatment and disposal of hazardous waste.

Public Services Element Policy PS6.2.7: Require disclosure of the presence of hazardous materials on property proposed for development.

Safety Element Policy S2.1.2: Evaluate the potential for inundation from failure of the Lake Palmdale or Littlerock dams when reviewing development proposals within potential inundation areas.

Safety Element Objective S2.3: Protect the public from hazardous materials and the hazards associated with the transport, storage or disposal of such materials.

Safety Element Policy S2.3.3: Require that soils containing toxic or hazardous substances be cleaned up to the satisfaction of the agency having jurisdiction, prior to the granting of any permits for new development.

Safety Element Policy S2.6.1: If, in the future conclusive evidence links electromagnetic fields (EMF) associated with electrical distribution lines, electrical distribution stations, or transformers with deleterious health effects,

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develop standards for construction, building setbacks, and/or land use restrictions for those areas impacted by hazardous EMF fields. (General Plan Amendment 04-01, adopted by City Council April 14, 2004.)

HYDROLOGY

Environmental Resources Element Goal ER4: Protect the quality and quantity of local water resources.

Environmental Resources Element Objective ER4.1: Ensure that ground water supplies are recharged and remain free of contamination.

Environmental Resources Element Policy ER4.1.1: Incorporate the use of flood control measures which maximize groundwater recharge and the use of floodways as native habitat.

Environmental Resources Element Policy ER4.1.2: Restrict building coverage and total impervious area in the vicinity of natural recharge areas.

Environmental Resources Element Policy ER5.2.3: Require erosion control measures on new development, including covering soil with straw mats or use of chemical soil and dust binders, followed by seeding and watering as soon as possible after grading to prevent fugitive dust.

Environmental Resources Element Policy ER6.2.6: Address infrastructure for the area, including appropriate means of controlling the floodway and managing the flood plain.

Public Services Element Policy PS2.1.2: Protect groundwater quality, through policies and implementation measures contained in the Environmental Resources Element.

Safety Element Objective S1.2: Minimize hazards associated with flood plains in the area.

Safety Element Policy S1.2.1: Require that new development shall not be exposed to flood hazards or contribute to an existing flood hazard, in accordance with the City's Floodplain Management Ordinance and related criteria within the City's Engineering Design Standards.

Safety Element Policy S1.2.4: All required primary and secondary access and egress routes for all new development should be "dry" access located outside of the 100-year flood plain.

Safety Element Policy S1.2.6: Require that grading and other methods of water diversion be used to retard water runoff, where appropriate.

Safety Element Policy S1.2.7: Ensure that storm water drainage is designed for peak flow conditions.

LAND USE AND PLANNING

Circulation Element Policy C1.1.8 – Evaluate all land use decisions to ensure consistency with the Circulation Plan.

Circulation Element Policy C3.1.1: Schools, parks and neighborhoods uses should be located within convenient walking distance to residential developments.

Circulation Element Policy C3.1.2: Land uses should be arranged in a manner which increases the opportunity to utilize alternate forms of transportation, such as transit systems, bikeways and pedestrian walkways.

Circulation Element Policy C3.1.4: Require residential subdivision designs to accommodate convenient pedestrian and bicycle access, both on- and off-site.

Land Use Element Policy L1.1.4: In considering requests to amend the Land Use Map, discourage proposals for development requiring urban services in those areas which are functionally separated from developed portions of the City by lack of infrastructure, expanses of vacant land, significant topographic or jurisdictional barriers, or other similar constraints.

Land Use Element Objective L1.2: Implement annexation policies that promote logical and orderly boundaries, respond to community concerns, and minimize fiscal impacts to the City.

Land Use Element Policy L1.2.5: Evaluate future annexations to consider the following criteria:

1. No annexation should occur unless:
 - a) An equitable property tax transfer can be negotiated with the County to ensure cost recovery to the City for providing municipal services to these areas; or
 - b) The area to be annexed would provide benefits including but not limited to employment opportunities, increased jobs-housing balance, recreational amenities or other elements having a citywide benefit which outweigh the potential long- term fiscal costs; or
 - c) Sales tax or other revenue sources resulting from annexation will adequately offset service costs to the City, as determined by the City Council.
2. Evaluation of annexation proposals should fully consider all costs, including capital facilities, maintenance and administration costs, associated with each proposal. These costs may include but are not limited to upgrading, retrofitting and maintenance of infrastructure facilities, including but not limited to sewer, water,

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streets, street lighting and storm drainage; code enforcement; housing rehabilitation needs; provision of social and recreational programs; law enforcement, fire protection and emergency services; and City administration.
3. No annexation of largely undeveloped areas should occur unless adequate master planning of infrastructure has been completed to the satisfaction of the City.
4. The annexation of land to the City shall represent a logical expansion of City boundaries and provide for a planned, orderly and efficient pattern of urban development. Annexation requests shall not be approved where the City Council finds that such expansion of the City's boundary may be detrimental to the value and development potential of property within the existing municipal boundaries.
5. A primary function of the City of Palmdale is to provide municipal services to support urban development. Therefore, future annexations should focus on those areas which are planned for and represent a logical extension of urban services and development. Servicing of non-urban areas should remain a function of the County.
6. The City should focus annexation efforts on "County islands" and other areas which are infill in nature, where affected residents and property owners are generally supportive of such annexation efforts, and should give priority to annexing these islands over further expansion into outlying areas.
7. Annexation of any area which is within the boundaries of an adopted community standards district shall consider and respect the provisions of such standards in any future land use approvals.
Land Use Element Policy L1.3.3: Through the development review process, evaluate proposals with respect to their impacts on adjacent properties, including their impacts on existing uses of those properties, and require that project designs employ appropriate techniques to increase compatibility between uses.
Land Use Element Objective L1.4: Adopt land use policies which minimize exposure of residents to natural hazards, protect natural resources, and utilize land with limited development potential for open space and recreational uses where feasible.
Land Use Element Goal L2: Adopt land use and development policies which encourage growth and diversification of the City's economic base.
Land Use Element Goal L3: Provide a high quality of life for all existing and future residents, meeting the needs of a variety of lifestyles.
Land Use Element Objective L3.1: Provide for the distribution of residential densities and housing types to meet the varied lifestyles and needs of existing and future City residents.
Land Use Element Policy L3.1.1: On the Land Use Map, establish residential land use designations for a range of residential densities as follows:
1. Equestrian Residential: The Equestrian Residential (ER) designation is intended for single family residential uses at a maximum gross density of .40 du/ac (1 unit per 2½ acres), yielding an estimated population of 800 persons per square mile. Equestrian and related animal keeping activities are permitted within this designation. The character of areas within this designation will be rural in nature with parcel sizes of 2½ acres or larger. Clustering to preserve significant natural landforms is feasible, although where this designation is located in established rural neighborhoods on level terrain, clustering may not be acceptable. Full urban services such as community water and sewer may not be available to these areas, and public improvements may be constructed to rural standards where permitted. Densities within this designation may decrease pursuant to slope density ratios established in the Hillside Management Ordinance. Actual permitted density will be determined through the development review process, based on applicable environmental and infrastructural conditions.
2. Low Density Residential: The Low Density Residential (LDR) designation is intended for single family residential uses at a maximum gross density of 1 dwelling unit per acre with an estimated population of 1,600 persons per square mile. The Low-Density designation is appropriate to hillside areas and as a transition between rural and suburban areas. It is generally expected that urban services such as community sewer and water will be provided to new development proposed within this designation, although rural street and lighting standards may be appropriate to some projects. Minimum lot size within this designation will generally be one (1) acre or larger, although clustering may be permitted to encourage preservation of natural resources and steep slopes. Densities within this designation may decrease pursuant to the slope density ratios established in the Hillside Management Ordinance. Actual permitted density will be based on applicable environmental and infrastructural conditions.
3. Single Family Residential-1 (0-2 du/ac): The Single Family Residential-1 (SFR-1) designation is intended

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for single family residential uses with gross densities ranging from 0-2 du/ac and an estimated population of 3,600 persons per square mile. Net lot sizes will generally be one half acre or larger, creating a semi-rural environment with horse/animal keeping possible. This designation may be utilized in lower hillside areas where inclines are present but topography is lacking significant slope constraints. It may also be utilized in outlying valley areas where large lot subdivisions are desired. Full urban services are expected in these areas, although larger lot subdivisions may develop with rural street and lighting standards as determined by the City. Clustering may be permitted to preserve steep hillsides and significant physical features. Densities within this designation may decrease pursuant to slope density ratios establishing in the Hillside Management Ordinance. Actual permitted density will be based on site specific environmental and infrastructural conditions.

4. Single Family Residential-2 (0-3 du/ac): The Single Family Residential-2 (SFR-2) designation is intended for single family residential uses with gross densities ranging from 0-3 du/ac and an estimated population of 5,600 persons per square mile. Net lot sizes will generally be 10,000 square feet or larger, although clustering may be permitted to preserve steeper terrain or significant physical features. This designation is appropriate in those areas between the valley floor and steeper hillside areas (generally having less than ten percent slope). Full urban services will be required in new development areas. Densities within this designation may decrease pursuant to slope density ratios established in the Hillside Management Ordinance. Actual permitted density will be based on site specific environmental and infrastructural conditions.
5. Single Family Residential-3 (3.1 - 6 du/ac): The Single Family Residential-3 (SFR-3) designation is intended for single family residential uses with gross densities ranging from 3.1-6 du/ac and an estimated population of 9,700 persons per square mile. Subdivisions containing the City's standard 7,000 square foot minimum lot size will typically be located within this designation. Densities under this designation may decrease pursuant to the slope density ratios established in the Hillside Management Ordinance. Actual permitted density will be based on site specific environmental and physical constraints.
6. Medium Residential: The Medium Residential (MR 6.1 to 10.0 du/ac) designation is intended for residential uses at maximum gross densities ranging from 6.1 to 10 units per acre and an estimated population of 16,200 persons per square mile. Housing types may include single family detached, single family attached, townhouses, condominiums, duplexes, triplexes, apartments, or manufactured housing developments. Permitted structure types will be as specified in the underlying zone district. For single family residential uses within this designation, the minimum permitted lot size is 7,000 square feet, unless otherwise specified in an approved specific plan or residential planned development offering a variety of lot sizes, housing types, and public amenities, a senior housing project, or other approved development plan.
The Medium Residential designation is appropriate within those areas having existing or planned residential uses at 6.1 to 10 units per acre, which are or will be served by adequate infrastructure and services needed to support this level of development. Maximum permitted density will be determined through the development review process, based upon environmental and infrastructural conditions. Equestrian and large animal uses are not intended within this district.
7. Multi-family Residential: The Multi-family Residential (MFR 10.1-16) designation is intended for residential uses with densities ranging from 10.1-16 du/ac and an estimated population of 26,000 persons per square mile. Housing types may include a variety of attached and detached dwelling unit types, as permitted by the underlying zone. Actual density permitted will be based on site specific environmental and infrastructural conditions. (General Plan Amendment 94-4, adopted by City Council December 14, 1994.)
8. Medium-High Density Residential: The Medium High Density Residential (MHDR 30) designation is intended for residential uses with densities ranging from 30-50 du/ac and an estimated population of 56,000 persons per gross square mile. Housing types may include a variety of attached dwelling unit types, including townhouses, condominiums or apartments, as permitted by the underlying zone. Actual density permitted will be based on site specific environmental and infrastructural conditions. (General Plan Amendment 11-03, adopted by City Council September 5, 2012.)
9. High Density Residential: The High Density Residential (HOR 50) designation is intended for residential uses with densities ranging from 50-60 du/ac and an estimated population of 85,000 persons per gross square mile. Housing types may include a variety of attached dwelling unit types, including townhouses, condominiums or apartments, as permitted by the underlying zone. Actual density permitted will be based on site specific environmental and infrastructural conditions. (General Plan Amendment 11-03, adopted by

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City Council September 5, 2012.)

Land Use Element Policy L3.2.4: Maintain 7,000 square feet as the minimum lot size standard for single family residential subdivisions; permit flexibility from this standard in conjunction with approval of a comprehensive planning document such as a specific plan or planned residential development.

Land Use Element Policy L3.4.3: Avoid designating land for higher density uses where prevailing existing development patterns are rural residential with lot sizes of one (1) acre or more.

Land Use Element Policy L3.4.5: When residential development is proposed outside the urban core, where urban infrastructure does not exist and no plans exist for provision of backbone infrastructure, require the preparation and approval of comprehensive planning documents such as specific plans, area plans and master facilities studies to assess the project's needs and impacts.

Land Use Element Objective L3.5: Ensure that future residential development provides an attractive living environment and creates long-term value for residents as well as the community.

Land Use Element Policy L3.5.2: Adopt standards for the design of single-family subdivisions that will ensure functional integration with existing development, community facilities and supportive services.

Land Use Element Policy L3.5.3: Consider intensity as well as density of development in evaluating residential projects; building mass and coverage should be proportional to the size of parcel being developed.

Land Use Element Policy L6.2.2: Provide a 1,000-foot buffer between property designated as PF-Landfill on the General Plan Land Use Map and future residential developments. (General Plan Amendment 93-2, adopted by City Council October 13, 1993.)

Public Services Element Policy PS1.3.4: Encourage clustering of development where appropriate, to maximize use of infrastructure.

Public Services Element Policy PS1.3.5: Adopt comprehensive planning documents such as area plans, specific plans and development agreements, to specify the nature, timing and financing of public improvements and services.

Public Services Element Policy PS7.1.1: Evaluate proposed dedications of land or easements to the City for various purposes based on the following criteria:

1. Natural Open Space/Trails/Parkland: The proposed dedication of land or easements for the purpose of natural open space, trails, or parkland to the City should be evaluated based on the following criteria:
 - a. The open space, trails and/or parkland dedication should serve the open space/recreational needs of the City, rather than the more localized benefit of a single neighborhood.
 - b. Other responsible agencies or land trusts should be considered as an alternative to outright dedication of open space to the City. In these instances, the City should determine whether a blanket easement to the City for open space and passive recreation is desirable.
 - c. The open space area or trails should be reviewed to determine if they are adjacent to other publicly held open space and whether they are an integral element in the ultimate development of local or regional trails or a local/regional greenbelt. Trails should be reviewed to determine consistency with proposed alignments contained in the City's Parks, Recreation and Trails Element, North County Plan or any other recognized plan.
 - d. An evaluation should be made to ascertain whether the proposed area contains biotic, historic, or cultural resources of local or regional significance or whether the site represents a natural and scenic resource to the City.
 - e. An evaluation of any adjacent proposed development should ascertain the impacts of such development on the natural resources and aesthetic qualities of the site.
 - f. For natural areas that are in a degraded condition due to human activity or natural events such as fire or flood, an evaluation should be made of the costs to restore such sites to their natural or a useable condition.
 - g. Open space and trails should be accessible to the general public and provide general benefit; remnant areas within developments that are undevelopable may not be appropriate for acceptance in all cases, and may be more suitably maintained by a homeowners' association.
 - h. The short-and long-term fiscal impacts of accepting, improving and maintaining open space or trails should be evaluated. Such evaluation should include an assessment of existing and potential fire hazards in wildland areas, geologic conditions, hazardous material assessments, or other site conditions that may require significant City expenditure for mitigation.
 - i. Any proposed parkland should be evaluated to determine whether there is: a) an identified need for

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<p>additional parkland within the area; b) whether the site is of adequate size and shape to accommodate park development; c) whether the site is proposed to incorporate additional facilities such as drainage basins; d) whether the site is compatible with existing and proposed adjacent land uses; e) whether the site is accessible to the general public; and f) whether the proposed dedication would provide greater benefit than would the collection of fees to be used for development of existing dedicated park sites.</p> <p>2. Slopes/Parkways: Where development projects propose the annexation of slope areas and/or parkways into the City landscape assessment district for maintenance, such areas shall be evaluated utilizing the following criteria:</p> <ol style="list-style-type: none"> Any slope proposed for City maintenance should be evaluated to ensure that the slope is: a) adjacent to a designated arterial right-of-way; b) contiguous to district-maintained land; c) accessible to maintenance vehicles; and d) the overall height and slope ratio is acceptable. Development proposals that include slopes of excessive height and length, which are proposed for City maintenance, should be evaluated with respect to other design alternatives that could limit these slopes. Publicly maintained slopes should be minimized to the extent feasible. The short-and long-term fiscal impacts of accepting maintenance of slopes should be evaluated. Any parkways and slopes to be maintained by the City should be found to provide benefit to the general public through provision of safe, efficient and attractive streetscapes and easements. City maintenance should not be expected for areas where slopes or landscaping will provide only a local benefit to a limited area, such as where they have been created to develop view lots or marketing corridors.
MINERAL RESOURCES
No General Plan Goals, Objectives or Policies are relevant to the Project in that the Project site is not designated as a Mineral Resource/Recovery Zone and contains no Mineral Resources other than two capped oil wells.
NOISE
Noise Element Goal N1: Minimize the exposure of residents to excessive noise to the extent possible, through the land planning and the development review process.
Noise Element Policy N1.1.2: Restrict noise sensitive land uses near existing or future air, rail or highway transportation noise sources unless mitigation measures have been incorporated into the design of the project to reduce the noise levels at the noise sensitive land use to less than 65 dBA CNEL at all exterior living spaces including but not limited to, single-family yards and multi-family patios, balconies, pool areas, cook-out areas and related private recreation areas.
Noise Element Policy N1.2.2: Restrict construction hours during the evening, early morning and Sundays.
<p>Noise Element Policy N1.2.3: Utilize any or all of the following measures in order to maintain acceptable noise environments throughout the City:</p> <ol style="list-style-type: none"> Control of noise at its source, including noise barriers and other muffling devices built into the noise source. The provision of buffer areas and/or wide setbacks between the noise source and other development. The reduction of densities, where practical, adjacent to the noise source (freeway, airport, railroad). The use of sound insulation, blank walls, double paned windows and other design or architectural techniques to reduce interior noise levels. Designation of appropriate land uses adjacent to known noise sources.
POPULATION AND HOUSING
Land Use Element Policy L2.1.6: Consider the jobs/housing balance in evaluating new development proposals.
Housing Element Goal H1: Promote the construction of new housing affordable to all income groups.
Housing Element Objective H1.1.1: Provide adequate sites at a range of densities to accommodate future housing needs.
Housing Element Policy H.1.1.1: Encourage a variety of housing types such as single-family attached (townhouses), multifamily units, planned unit developments mixed use housing and other housing types that make housing more affordable.
Housing Element Goal H6: Implement energy and water conservation measures.
Policy H6.1.1: Ensure that energy and water conservation measures are included in all new development through the use of an energy conservation checklist.
Policy H6.1.3: Incorporate xeriscape as a condition of approval for all subdivisions and housing projects.

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Policy H6.1.4: Enforce all California Building Code and California Administration Code Title 24 conservation measures.
PUBLIC SERVICES
Public Services Element Goal PS1: Ensure that adequate public services and facilities are available to support development in an efficient and orderly manner.
Policy H6.1.4: Enforce all California Building Code and California Administration Code Title 24 conservation measures.
Public Services Element Objective PS1.1: Ensure that all new development in Palmdale provides for the infrastructure and public services needed to support it.
Public Services Element Policy PS1.1.1: Require all new development, including major modifications to existing development, to construct required on-site infrastructure improvements pursuant to City standards.
Public Services Element Policy PS1.1.2: Require all new development, including major modifications to existing development, to construct or provide a fair share contribution towards construction of required off-site improvements needed to support the project.
Public Services Element Policy PS1.1.3: Require that on-and off-site improvements are constructed prior to occupancy of a new development project, or phase thereof, unless otherwise approved by the City.
Public Services Element Policy PS1.1.5: When new development is proposed in vacant, rural areas which have not yet been master-planned for provision of infrastructure, require that development proponents provide for or contribute a fair share towards development of regional master facility plans for roads, sewer, water, drainage, schools, libraries, parks, fire and other community facilities, prior to granting conditional approval of development applications.
Public Services Element Objective PS1.2: Ensure that new development is coordinated with provision of backbone infrastructure within the site and with adjacent properties, to promote cost-efficient construction and maintenance, and ease of access to facilities.
Public Services Element Policy PS1.2.1: Require that provision of streets, sewer, water, drainage and other needed infrastructure be coordinated in a logical manner between adjacent developments, so as to reduce cost of design, construction and maintenance.
Public Services Element Policy PS1.2.2: Require that individual development projects integrate with adjacent development with respect to backbone infrastructure (streets, sewer, water and drainage). If adjacent property is undeveloped, a conceptual plan should be prepared to show that the pending development will allow for future integration and development of adjacent properties in a manner which is reasonable from a design, construction and cost standpoint.
Public Services Element Policy PS1.2.4: Require that phasing of infrastructure requirements within a development consider adjacent properties to the extent feasible.
Public Services Element Policy PS1.2.5: Require that infrastructure be designed and constructed to meet ultimate capacity needs, pursuant to a master plan, so as to avoid the need for costly retrofitting.
Public Services Element Policy PS1.3.1: Evaluate annexation of unincorporated developed areas adjacent to or surrounded by the City to ensure that greater efficiency in provision of services will be achieved.
Public Services Element Policy PS1.4.7: Evaluate infrastructure facilities and service levels within developed areas which annex to the City, and promote programs to retrofit street, drainage and sewer improvements where warranted.
Public Services Element Policy PS1.5.3: Coordinate planning issues with outside service provider representatives, such as the school districts, sheriff's department, fire district, water districts, and sanitation district, to promote coordinated master planning for these services.
Public Services Element Policy PS4.1.4: Condition approvals of development projects to meet the funding requirements of applicable school districts to the extent permitted by law. (General Plan Amendment 04-05, adopted by City Council July 26, 2004.)
Public Services Element Objective PS5.1: Ensure provision of fire protection facilities and equipment needed to protect existing and future development.
Public Services Element Policy PS5.1.1: Obtain fire protection, fire prevention and paramedic services from Los Angeles County Fire Protection District.
Public Services Element Policy PS5.1.3: Through the development review process, assess fire protection needs of development projects and require mitigation needed to maintain adequate service levels, including but not limited

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to reservation of sites for fire stations and fair-share contributions for fire suppression equipment.
Public Services Element Policy PS5.2.1: Contract with the Los Angeles County Sheriff's Department for law enforcement services.
Public Services Element Objective PS5.3: Provide library service to meet the needs of existing and future library residents.
Safety Element Policy S1.3.7: Where feasible, require new development to pay for fire protection services and facilities needed to support it.
Safety Element Policy S1.3.9: Ensure that the requirements of the Los Angeles County Fire Department are implemented on new development proposals, through the review process.
Safety Element Policy S1.3.10: Require that all new development is served by a water system that meets the fire flow requirements established by the fire department.
Safety Element Policy S3.1.1: Ensure that there is not a reduction in effectiveness of emergency services as a result of growth permitted through the implementation of this plan.
RECREATION
Parks/Recreation/Trails Element Goal PRT1: Provide adequate parks to meet the needs of existing and future residents. (Objective PS5.4)
Parks/Recreation/Trails Element Policy PRT1.1.1: Of the 5 acres/1,000 population, active park land must comprise no less than 3 acres per 1,000 population; open space may comprise 1 acre per 1,000 population; and the remainder can be composed of other public recreational facilities including Desert Aire Golf Course, portions of school sites which provide recreation facilities or play fields accessible to the public, or other comparable facilities. Of the 3 acre/1,000 population standard for active park land, develop 2 acres as community or specialty parks and 1 acre as neighborhood parks.
Parks/Recreation/Trails Element Policy PRT1.2.1: Collect park fees and review this fee annually, to provide financing for improvement of parkland in Palmdale (Policy PS5.4.4).
Parks/Recreation/Trails Element Objective PRT1.3: Wherever feasible, incorporate uses which increase the public benefit of park land, and are compatible with the goal of providing active recreation opportunities.
Parks/Recreation/Trails Element Objective PRT1.4: Consider non-traditional types of parks to extend the range of recreational opportunities available within the City.
Parks/Recreation/Trails Element Objective PRT1.5: Ensure that parks and recreation facilities are accessible to all citizens.
Parks/Recreation/Trails Element Policy PRT1.5.1: Incorporate all design features, required by the Americans With Disabilities Act, which improve access to parks and park facilities for handicapped citizens.
Parks/Recreation/Trails Element Policy PRT1.5.3: To the extent practical, provide playground equipment which provides recreational opportunities to handicapped children within City parks and provide features such as trails and signs for persons who are visually impaired and park structures which accommodate persons confined to wheelchairs.
Parks/Recreation/Trails Element Policy PRT1.5.4: Where appropriate, provide park facilities which meet the recreational needs of senior residents.
Parks/Recreation/Trails Element Policy PRT1.5.5: Ensure that parks are designed to promote the safety of all park users by incorporating features which discourage crime.
Parks/Recreation/Trails Element Objective PRT1.6: To the extent feasible, incorporate active parks in the City's open space network and trails plan.
Parks/Recreation/Trails Element Policy PRT1.6.1: Provide trail linkages through active park sites to connect nearby equestrian and multi-use trails, and bikeways.
Parks/Recreation/Trails Element Goal PRT3: Provide a network of open space areas to provide for passive recreation opportunities, enhance the integrity of biological systems, and provide visual relief from the developed portions of the City.
Parks/Recreation/Trails Element Policy PRT3.1.1: Encourage the placement of multi-use trails or Class I bikeways adjacent to or within open space corridors, except that the placement of these trails should not compromise the preservation of any sensitive environmental resources which may be present in the open space area.
Parks/Recreation/Trails Element Policy PRT3.1.2: Provide for access points into open space areas to encourage passive recreation activities such as hiking and nature study. These access points should be located at sites which

Table ES-3 – Goals, Policies, Regulations

can best tolerate human presence and not directly impact sensitive locations such as springs and archaeological sites.
Parks/Recreation/Trails Element Policy PRT3.2.2: Where appropriate, require the preservation of open space areas or open space corridors in areas which are master planned for development.
Parks/Recreation/Trails Element Goal PRT4: Develop a system of multi-use trails which provide connections to the County trails system and the City of Lancaster trails system.
Parks/Recreation/Trails Element Objective PRT4.1: Provide multi-use trails, for use by pedestrians, bicyclists and equestrians, connecting to existing or currently planned multi-use trails.
Parks/Recreation/Trails Element Policy PRT4.1.4: Adopt the trail design standards, described in Table PRT-2 and Appendix A, which set forth the standards for trail easements, including minimum trail widths and clearances, maximum grades and road crossing details, and lists acceptable construction materials.
Parks/Recreation/Trails Element Policy PRT4.2.6: Within developments proposed in areas designated for low density residential development, require feeder trails to connect to the main trail network.
Parks/Recreation/Trails Element Objective PRT4.3: To the extent feasible, ensure that trails are accessible to all residents.
Parks/Recreation/Trails Element Policy PRT4.3.1: Incorporate design features, including suitable trail tread materials, which provide access to trails by handicapped citizens.
Parks/Recreation/Trails Element Policy PRT4.3.2: To the extent feasible, design trails to maximize the safety of trail users by incorporating features which provide visibility and discourage crime.
Parks/Recreation/Trails Element Goal PRT5: Promote bicycling as an important mode of transportation and recreation in the City of Palmdale.
Parks/Recreation/Trails Element Policy PRT5.1.2: Focus additional planning efforts towards establishing local bikeway networks which connect with the city-wide backbone system.
<p>Parks/Recreation/Trails Element Policy PRT5.1.4: Require residential subdivisions designs to accommodate convenient pedestrian and bicycle access, both on and off site, through measures which may include the following (Policy C3.1.4):</p> <ol style="list-style-type: none"> 1. Side-on cul-de-sacs, as opposed to standard cul-de-sacs, should be encouraged adjacent to major and secondary highways or pedestrian trails, to provide for pedestrian access through cul-de-sac ends. 2. Subdivision design should consider bicycle and pedestrian access to non-residential uses. These areas are best accessed through perimeter (single-loaded) streets. In addition, a logical travel path should be provided between these facilities and nearby arterials.
Parks/Recreation/Trails Element Policy PRT5.1.6: Provide for linkage of bikeways to the multi-use trails network within the Planning Area.
Parks/Recreation/Trails Element Policy PRT5.2.2: Adopt the design standards, described in the State of California Highway Design Manual, chapter 1000, which set forth minimum bikeway widths and clearances, maximum grades and road crossing details, among other things.
Parks/Recreation/Trails Element Policy PRT5.3.2: Require utilization of Class I bike paths in all master planned developments.
Public Services Element Objective PS5.4: Provide adequate park and recreation facilities to meet the needs of existing and future residents.
Public Services Element Policy PS5.4.1: Adopt and implement a standard of 5 acres of parkland per 1,000 population for the City.
Public Services Element Policy PS5.4.3: Develop a recreation facility to meet the regional recreation needs of the community.
Public Services Element Policy PS5.4.4: Collect park fees and review this fee annually, to provide financing for improvement of parkland in Palmdale.
Community Design Element Policy CD 5.3.2: Pedestrian circulation pathways shall be safe and efficient, and shall not route pedestrians through parking areas, across vehicular travel paths, or through landscape planters to reach destination points.
TRANSPORTATION
Circulation Element Policy C.1.1.9 – Ensure that the cumulative and regional impacts of new development on the circulation system are mitigated to the extent feasible, concurrent with development. Concurrent shall mean that required facilities are installed as needed during various stages of development.

Table ES-3 – Goals, Policies, Regulations

Circulation Element Policy C1.2.1 – Provide adequate system capacity and efficiency through exclusive turn lane additions at arterial intersections and other significant locations.

Circulation Element Policy C1.2.2: Assure safe and efficient arterial operations through careful control of access, signal spacing, median placement, and overall street and development design.

Circulation Element Policy C1.2.3: Protect and increase the capacity of arterial streets through the following measures:

1. No new direct residential driveway access will be permitted onto regional, major and secondary arterials or highways, except where no other feasible access is available.
2. For residential development, full intersections will generally be permitted at no less than one-quarter mile spacing along arterial streets. Where it is determined by the City Traffic Engineer that community-wide circulation will not be negatively impacted, full intersections (non-signalized) may be permitted at approximately one-eighth mile spacing.
3. Except as specified in Policy C1.2.3.b, right turn only access will typically be permitted at approximately one-eighth mile spacing in residential developments, unless no other feasible access is available. Additional right-of-way may be required on arterials for right turn lanes onto local and collector streets, and significant private streets or driveways.
4. On-street parking will be prohibited on arterial roadways, unless otherwise approved by the City Traffic Engineer.
5. New arterial streets, and extensions of existing arterial streets, will be designed so as to eliminate jogs and discontinuities and facilitate regional traffic flow.
6. All secondary, major and regional arterials should be constructed with medians.

Circulation Element Policy C1.4.1: Strive to maintain a Level of Service (LOS) C or better to the extent practical; in some circumstances, a LOS D may be acceptable for a short duration during peak periods.

Circulation Element Policy C1.4.2: Ensure that approvals of new development are correlated with any roadway improvements that would be necessary to maintain the existing level of service or LOS C, whichever is less, and other performance characteristics applicable to the affected roadways. Development shall not be authorized until measures are in place to construct any necessary improvements; these measures may include, but not be limited to, payment of traffic impact fees or construction of street improvements as required in the conditions of approval.

Circulation Element Policy C1.4.3: Establish street design standards which provide the capacities that are needed to adequately serve the projected travel demand.

Circulation Element Policy C1.4.4: Promote safe circulation and emergency access, through the following means:

1. Require a minimum 26-foot-wide paved access from an improved public street to all developments. Individual single-family residences (not associated with a tract map) are excluded from this requirement except as deemed necessary by the Los Angeles County Fire Protection District. Access roads shall be increased to 28 feet in width within 200 feet of an intersection with a public street.
2. Two points of ingress and egress should be provided to every subdivision or phase thereof. Exceptions may be granted for small subdivisions where physical constraints make it difficult or impossible to provide a second access point.
3. Medians constructed in arterial streets should be provided with decorative paved crossover points for emergency vehicles, where deemed necessary by the Fire Department.
4. Street naming and numbering should consider ease of use for dispatch of emergency services.
5. The street system should function safely and effectively, without the subsequent need for excessive traffic control devices.

Circulation Element Policy C1.4.5: Locate and design intersections so as to promote safe and efficient circulation, through the following means:

1. Local to local street intersections should be spaced at least 150 feet apart (from centerline to centerline).
2. Intersections, including knuckles, should generally be perpendicular. Public streets should intersect at a 90-degree angle plus or minus five degrees. Knuckles should be constructed at a 90-degree angle, plus or minus 10 degrees.
3. Excessive grade variations, curves or other features which impair sight distance at intersections shall be avoided.
4. Local to collector street intersections should be spaced no less than 300 feet apart, where necessary to provide adequate queuing room for left turn movements on to the collector street. Where left turn movements onto the collector street are not needed, this spacing requirement may be reduced to 150 feet.

Table ES-3 – Goals, Policies, Regulations

5. On local-to-local intersections, four-way intersections should be avoided.
6. For intersections of collector or larger streets, four-way intersections are preferred over offset or “T” intersections.
Circulation Element Policy C1.4.6: Adopt standards for use of private streets, where appropriate; private streets, other than driveways and alleyways typically associated with multi-family development, should be constructed to City standards for public rights-of-way, and should be used only for gated communities.
Circulation Element Policy C1.6.2: Require assurance of long-term maintenance for all private streets constructed within the City.
Circulation Element Goal C2: Reduce the number of trips and vehicle miles traveled by individuals within the Planning Area, to meet regional transportation and air quality goals.
Circulation Element Policy C2.1.3: Require residential developments to contribute towards City programs to reduce vehicle trips.
Circulation Element Policy C2.1.5: Ensure compliance with the County’s Congestion Management Plan.
Environmental Resources Element Policy ER5.6.1: Ensure that new development reduces project-related vehicle miles traveled to the maximum extent provided by law.
Environmental Resources Element Policy ER6.2.5: Address circulation to minimize impacts on the City's existing and planned network, and or adjacent properties.
Community Design Element Policy CD 5.3.4: A minimum of two means of ingress and egress shall be provided.
Community Design Element Policy CD 5.3.6: Project driveway entrances shall be enhanced with paving and landscaping to emphasize the entryway; building entrances shall be enhanced with landscaping, lighting and architectural treatment for ease of identification.
Community Design Element Policy CD 5.3.7: For gated communities, adequate stacking room and parking stalls shall be provided outside of the gates, so as to eliminate any queuing or parking of visiting vehicles on public streets. Internal stacking should not interfere with internal circulation.
TRIBAL CULTURAL RESOURCES
Environmental Resources Element Policy ER7.1.5: When human remains, suspected to be of Native American origin are discovered, cooperate with the Native American Heritage Commission and any local Native American groups to determine the most appropriate disposition of the human remains and any associated grave goods.
UTILITIES AND SERVICE SYSTEMS
Environmental Resources Element Policy ER4.1.4: Require that all new commercial, industrial, and residential development connect to sanitary sewers as required by Policy PS2.2.4 of the Public Services Element.
Environmental Resources Element Policy ER4.2.3: Require the use of water conserving appliances and plumbing fixtures in all new construction.
Public Services Element Policy PS1.6.3: Through the development review process, protect existing utility easements and require dedication of additional easements where needed.
Public Services Element Goal PS2: Ensure that all development in Palmdale is served by adequate water distribution and sewage facilities.
Public Services Element Objective PS2.1: Require that all development be serviced by water supply systems meeting minimum standards for domestic and emergency supply and quality.
Public Services Element Policy PS2.1.1: Require new development to obtain adequate water service to meet the increased service needs generated by that development.
Public Services Element Policy PS2.1.3: Promote water conservation and long-term water management in all phases of development planning and construction, through policies and implementation measures contained in the Environmental Resources Element.
Public Services Element Objective PS2.2: Require that all development be served by sewage disposal systems, which are adequately sized to handle expected wastewater flows and designed and maintained to protect the health of residents.
Public Services Element Policy PS2.2.2: Require new development to pay necessary fees for expansion of the sewage disposal system to the appropriate agencies, to handle the increased load which it will generate.
Public Services Element Policy PS2.2.8: All private sewage disposal systems shall comply with the requirements of the City of Palmdale Plumbing Code, the Los Angeles County Health Department, and La Hontan Regional Water Quality Control Board and any Memorandum of Understanding between these agencies concerning private sewage disposal systems. (General Plan Amendment 09-04, adopted by City Council March 3, 2010.)

Table ES-3 – Goals, Policies, Regulations

Public Services Element Goal PS3: Develop and maintain adequate storm drainage and flood control facilities.
Public Services Element Objective PS3.1: Maintain and implement the City's adopted Master Drainage Plan.
Public Services Element Policy PS3.1.1: Continue the drainage impact fee program and periodically adjust fees as needed.
Public Services Element Policy PS3.1.2: Evaluate the impact of all new development and expansion of existing facilities on storm runoff and ensure that the cost of upgrading existing drainage facilities to handle the additional runoff is paid for by the development that generates it.
Public Services Element Policy PS3.1.3: Make use of interim local drainage detention basins to slow stormwater runoff, until such time as permanent drainage facilities are constructed.
Public Services Element Policy PS3.1.4: Through the development review process, reserve land from development in appropriate locations for construction of drainage facilities.
Public Services Element Policy PS3.1.5: Require and provide for on-going maintenance of drainage and detention facilities, to ensure their continued effectiveness in controlling runoff.
Public Services Element Policy PS3.2.1: Where feasible, plan for detention or retention facilities in areas where groundwater recharge can be accomplished.
Public Services Element Goal PS6: Ensure provision of adequate facilities and programs to accommodate solid waste and hazardous waste collection, handling and disposal.
Public Services Element Policy PS6.1.1: Review proposed development with respect to the SWMP to ensure consistency.
Public Services Element Policy PS6.1.3: Continue to implement the City's adopted waste reduction and recycling programs in compliance with the SWMP. (General Plan Amendment 04-05, adopted by City Council July 26, 2004.)
WILDFIRE
Safety Element Objective S1.3: Ensure compatible development in areas within or adjacent to natural high fire risk areas (urban-wildland interface), and other high fire risk areas.
Safety Element Policy S1.3.2: Encourage dual access, particularly in mountainous and high fire risk areas, on approved all-weather surface roadways.
Safety Element Policy S1.3.3: Provide fire-resistant landscaped buffer zones between high-risk fire hazard areas and urban development, and restrict access from development into the open space areas during periods of high fire risk.
Safety Element Policy S1.3.4: Evaluate the need for fire resistant landscape buffer zones for existing developments located in high-risk fire hazard areas, and require fuel modification on a continuous basis where appropriate.
Safety Element Policy S1.3.5: Require that all new development proposals near the designated wildfire hazard zones identify evacuation/emergency routes, and that the information be provided to all residents within the development.
Safety Element Policy S1.3.6: Where appropriate, require preparation of a Fire Protection/Fuel Management Plan for new urban development adjacent to natural high fire hazard areas, and ensure implementation of fire hazard mitigation measures.

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1.0 Introduction

1.1 PURPOSE OF AN ENVIRONMENTAL IMPACT REPORT

The City of Palmdale is the Lead Agency under the California Environmental Quality Act (CEQA) and has determined that an Environmental Impact Report (EIR) is required for the Quail Valley Planned Development (Project). This EIR has been prepared in conformance with CEQA (California Public Resources [PRC] §§ 21000 et seq.); CEQA Guidelines (California Code of Regulations [CCR], Title 14, §§ 15000 et seq.); and, rules, regulations and procedures for implementation of CEQA. The principal CEQA Guidelines sections that govern content of this EIR include Article 9 (*Contents of Environmental Impact Reports*) (Sections 15120 through 15132), and Section 15161 (*Project EIR*).

The purpose of this EIR (**State Clearinghouse #2018101045**) is to review the existing conditions, analyze potential environmental impacts, and identify feasible Mitigation Measures to reduce potentially significant effects of the Project. More detailed information pertaining to the Project is contained in Section 3.0 – *Project Description*.

This EIR addresses environmental effects of the Project, in accordance with Section 15161 of the CEQA Guidelines. Section 15121(a) of CEQA Guidelines states the primary purposes of an EIR are as follows:

- To inform decision makers and the public generally of significant effects of a project;
- To identify possible ways to minimize significant effects of a project; and,
- To describe reasonable alternatives to a project.

Mitigation Measures are provided that can be adopted as Conditions of Approval to avoid or minimize significant impacts that would result from the Project. This EIR also is the primary reference document used in formulation and implementation of a Mitigation Monitoring and Reporting Program for the Project.

The City of Palmdale (which has the principal responsibility of processing and approving the Project) and other public (responsible and trustee) agencies that may use this EIR in the decision making or permitting process will consider information in this EIR, along with other information that may be presented during the CEQA process. Environmental impacts are not always mitigatable to a level considered less than significant. In those cases, impacts are considered Significant Unavoidable Impacts. In accordance with Section 15093(b) of the CEQA Guidelines, if a public agency approves a project that has significant impacts that are not substantially mitigated (i.e., significant unavoidable impacts), the Lead Agency shall state in writing the specific reasons for approving the Project, based upon the Final EIR and any other information in the public record for the Project. Per CEQA Guidelines Section 15093, this is termed a “Statement of Overriding Considerations.”

This EIR analyzes the Project’s environmental effects to the degree of specificity appropriate to the proposed actions (required by CEQA Guidelines, Section 15146). The analysis considers activities associated with the Project to determine short-term and long-term effects associated with Project implementation. This EIR discusses both direct and indirect impacts of the Project and the cumulative impacts associated with other past, present, and reasonably foreseeable future projects.

Compliance with CEQA

The City of Palmdale is the Lead Agency with authority to prepare this Draft EIR and, after the public review/comment/response process, is the Certifying Agency for the Final EIR. Given that the project is anticipated to be annexed into the jurisdiction of the City of Palmdale, the Los Angeles County Local Agency Formation Commission (LAFCO) will also review and Certify the Final EIR. This EIR is intended to serve as an informational document to be made available for public review and consideration by the City of Palmdale, LAFCO, and the Responsible Agencies during deliberations about the Project. Discretionary actions associated with the Project are described in Section 3.0 – *Project Description* of this EIR.

Questions and comments pertaining to preparation of this document and the City of Palmdale review of the Project should be directed to the following.

City of Palmdale
Department of Economic and Community Development
38250 Sierra Highway
Palmdale, CA 93550
Attn.: Brenda Magaña, Senior Planner
661.267.5293
Bmagana@cityofpalmdale.org

1.2 ENVIRONMENTAL IMPACT REPORT PROCESS

Initial Study/Notice of Preparation/Early Consultation (Scoping)

In compliance with CEQA Guidelines, the City of Palmdale has provided opportunities for various agencies and the public to participate in the environmental review process for the Project. Pursuant to CEQA Guidelines Section 15082, the City of Palmdale circulated the Initial Study/Environmental Checklist and Notice of Preparation directly to responsible and trustee agencies (including the State Clearinghouse Office of Planning and Research), special districts, and members of the public who had requested such notice. The Notice of Preparation was distributed on October 26, 2018 with a 30-day public review period that concluded on November 26, 2018. The purpose of the Initial Study/Environmental Checklist and Notice of Preparation was to formally announce the preparation of a Draft EIR for the Project and to indicate that as Lead Agency the City of Palmdale was soliciting input related to the scope and content of environmental information to be included in the EIR. The Initial Study/Environmental Checklist and Notice of Preparation provided preliminary information about the anticipated range of impacts to be analyzed in the EIR. The Appendices to this EIR contains the Initial Study/Environmental Checklist, Notice of Preparation and comments made pertaining to the Notice of Preparation.

The Notice of Preparation commenters were the following. Copies of the comment letters are attached in the Appendices to this EIR:

- Southern California Edison
- State of California – Natural Resources Agency, Department of Water Resources
- State of California – Natural Resources Agency, Department of Fish and Wildlife
- County Sanitation Districts of Los Angeles County
- County of Los Angeles Fire Department

- Southern California Association of Governments
- Native American Heritage Commission
- Desert and Mountain Conservation Authority
- Antelope Valley Air Quality Management District
- Lahontan Regional Water Quality Control Board
- Los Angeles County Department of Regional Planning
- San Manuel Band of Mission Indians
- Neighbor, Miller
- Neighbor, Gallegos
-

Format of the Draft EIR

The Draft EIR is organized into the following Sections.

- **Section 0.0 – Executive Summary.** The Executive Summary provides a brief description of the Quail Valley Planned Development Project and a summary of related environmental impacts and Mitigation Measures.
- **Section 1.0 – Introduction and Purpose.** The Introduction and Purpose provides information about CEQA compliance.
- **Section 2.0 – Project Description.** This Section provides a detailed description of the Project, indicating the following: Project setting and location, background and history; Project characteristic, goals and objectives; construction information; and, associated discretionary actions required to realize the Project.
- **Section 3.0 – Environmental Setting.** This Section discusses the impacts of project development and operation. This Section also describes the approach and methodology for the cumulative analysis.
- **Section 4.0 – Environmental Analysis.** This Section contains a detailed environmental analysis of existing conditions, potential Project impacts, recommended Mitigation Measures, and potential significant and unavoidable impacts for environmental topic areas.
- **Section 5.0 – Other CEQA Considerations.** This Section provides a discussion of long-term implications of the Project. Irreversible environmental changes that would be involved with Project development and/or operation are identified. The Project's growth-inducing impacts are discussed.
- **Section 6.0 – Alternatives to the Proposed Project.** This Section describes a reasonable range of alternatives to the Project that could avoid or substantially lessen the Project's significant impacts and still feasibly attain the basic Project Objectives.
- **Section 7.0 – Effects Found Not To Be Significant.** This Section provides an explanation of potential impacts that have been determined not to be significant.
- **Section 8.0 – References.** This Section identifies reference sources for the Draft EIR.
- **Section 9.0 – Appendices.** The Appendices are comprised of technical studies, the General Plan Consistency Assessment, and information related to the Project.

This Draft EIR is being circulated for review and comment by the public and other interested parties, agencies and organizations for a 45-day review period. During the public review period public notices announcing availability of the Draft EIR will be mailed to interested parties, an advertisement will be published in the local general circulation newspaper, and copies of the Draft EIR and its accompanying Technical Appendices will be available for review at locations indicated in the public notices. After close of the 45-day review public comment review period, the City of Palmdale will prepare and publish responses to written comments received on the environmental effects of Project development and/or

operation. The Final EIR then will be considered for certification by the City of Palmdale Planning Commission and City Council. Certification of the Final EIR would be accompanied by adoption of written Findings and a Statement of Overriding Considerations for any significant unavoidable environmental impacts identified in the Final EIR. In addition, the City must adopt a Mitigation Monitoring and Reporting Program that describes the process to ensure implementation of Mitigation Measures identified in the Final EIR. The Mitigation Monitoring and Reporting Program will ensure CEQA compliance during Project development (construction) and operation.

1.3 RESPONSIBLE AND TRUSTEE AGENCIES

Various projects or actions that are undertaken by a Lead Agency require subsequent oversight, approvals, or permits from other public agencies to be implemented. The other agencies are referred to as Responsible Agencies and Trustee Agencies. CEQA Guidelines Sections 15381 and 15386 define Responsible Agencies and Trustee Agencies as follows:

A ‘Responsible Agency’ means “...a public agency, which proposes to carry out or approve a project, for which a Lead Agency is preparing or has prepared an EIR or Negative Declaration. For the purposes of CEQA, the term ‘responsible agency’ includes all public agencies other than the Lead Agency, which have discretionary approval power of the project.” (Section 15381)

A ‘Trustee Agency’ means “...a state agency having jurisdiction by law over natural resources affected by a project, which are held in trust for the people of the State of California. Trustee Agencies include: (a) The California Department of Fish and Wildlife . . . ; (b) The State Lands Commission . . . ; (c) The State Department of Parks and Recreation . . . and (d) The University of California with regard to sites within the Natural Land Water Reserves System.” (Section 15386)

Responsible and Trustee Agencies and other agencies/entities that may use this Draft EIR in their decision-making process or for informational purposes include, but may not be limited to, the following:

- Los Angeles County Local Agency Formation Commission
- CalTrans (California State Department of Transportation)
- Regional Water Quality Control Board
- South Coast Air Quality Management District
- City of Palmdale

1.4 INCORPORATION BY REFERENCE

Pertinent documents relating to the Draft EIR have been used in accordance with CEQA Guidelines Section 15150. This Section encourages incorporation by reference as a means of reducing redundancy and the length of environmental reports. The following documents hereby are incorporated by reference into this Draft EIR. Information within these documents has been utilized for each section of this Draft EIR.

- **Palmdale 2045** – The City of Palmdale General Plan, “Envision Palmdale 2045” (Palmdale 2045), provides a general, comprehensive and long-range guide for community decision making. The General Plan was used throughout this EIR as the fundamental planning document governing development at the Project site. The City of Palmdale adopted an update to its General Plan Update in Fall 2022. Palmdale 2045 covers the following topics that the community considers important as well as topics State law mandates. These topics include the following:
 - Land Use and Community Development
 - Circulation and Mobility

- Economic Development
 - Housing
 - Military Compatibility
 - Equitable and Healthy Communities
 - Parks, Recreation, and Open Space
 - Parks and Recreation;
 - Conservation
 - Public Facilities, Services, and Infrastructure
 - Safety
 - Sustainability, Climate Action, and Resiliency
 - Air Quality
 - Noise
- **City of Palmdale Municipal Code (current through Ordinance 1575; December 15, 2021) –** The Palmdale Municipal Code is a collection of laws (i.e., ordinances) passed by the Palmdale City Council. The ordinances have the force and effect of law in Palmdale. The ordinances generally do not become effective until 30 days after their second reading and adoption. The Palmdale Municipal Code contains 18 “Titles,” of which the most relevant to the Project is Title 17 (Zoning). Title 17 contains sections pertaining to the following: General Provisions; Review Procedures (for discretionary and ministerial applications); Zones (Agricultural; Residential; Commercial; Industrial; Special Purpose); General Standards of Development; Special Regulations (e.g., Residential Uses; Renewable Energy; etc.); Environmental Management (e.g., Hillside Management; Transportation Demand Management; etc.).
 - **Title 24 Energy Efficiency Standards and California Green Building Standards –** California Code of Regulations Title 24 part 6: California’s Energy Efficiency Standards for Residential and Nonresidential Buildings was first adopted in 1978 to reduce California’s energy consumption and is updated periodically to allow consideration and potential incorporation of new energy technologies and methods with the final goal of decreasing greenhouse gas emissions. The 2022 Title 24 standards encourage efficient electric heat pumps, establishes electric-ready requirements for new homes, expands solar photovoltaic and battery storage standards, strengthens ventilation standards, and more. Buildings whose permit applications are applied for on or after January 1, 2023 were required to comply with the 2022 Energy Code. The California Energy Commission is responsible for adopting, implementing and updating building energy efficiency. Local city and county enforcement agencies have the authority to verify compliance with applicable building codes, including energy efficiency.

California Code of Regulations, Title 24, Part 11: California Green Building Standards Code (CALGreen) is a comprehensive and uniform regulatory code administered by the California Building Standards Commission for all residential, commercial and school buildings. CALGreen requires the following for buildings to be certified for occupancy:

- Diversion of a minimum 65 percent of construction and demolition waste from landfills, increasing voluntarily to 80 percent for new homes and commercial projects and reuse of 100 percent of trees, stumps, rocks and associated vegetation and soils resulting from land clearing;
- Mandatory reduction of 20 percent of indoor water use with voluntary standards for 30, 35 and 40 percent reductions; and,
- Use of low-pollutant emitting interior finish materials such as paints, carpet, vinyl flooring and particleboard

- **City of Palmdale Energy Action Plan (2011)** – The City of Palmdale adopted its “Energy Action Plan” in August, 2011. The Energy Action Plan developed goals and policies to maintain good local air quality and reduce local contribution of airborne pollutants in the community. The primary goal of the Energy Action Plan is “to identify how the city will use energy efficiency and independence strategies to achieve its GHG emission reduction target of 15% by the year 2020 consistent with the State’s overall target to reduce GHG emissions statewide to 1990 levels by 2020.” The City created the following seven goals with respective tools for success measurement of each to achieve a 15% reduction to 806,019 MTCO₂e/year (metric tons of carbon dioxide equivalent per year) from 2005 baseline level of 948,258 MTCO₂e/year by 2020 and a 20% reduction to 760,792 MTCO₂e.
 - Goal 1: Reduce energy demand through energy conservation and efficiency
 - Goal 2: Reduce water consumption for energy conservation
 - Goal 3: Promote renewable energy generation and use
 - Goal 4: Reduce transportation emissions through alternative vehicles, trip reduction and consolidation, and efficient flow
 - Goal 5: Implement smart land use to reduce vehicular trips
 - Goal 6: Reduce waste
 - Goal 7: Support the “buy-local” movement

The Energy Action Plan provides the following priorities for achieving increased energy efficiency and conservation with broad-based public support.

- Reliable and efficient energy sources that are cost effective
 - Land uses that reduce transportation time and costs
 - Household and business investment in the local economy
 - Investments in competitive industries that bring jobs and infrastructure to Palmdale
- **California Air Resources Board 2022 Scoping Plan** – The 2022 Scoping Plan provides a technologically feasible, cost-effective, and equity-focused path to achieve California’s climate target. The 2022 Scoping Plan expands upon the two previous scoping plans that focused on specific GHG reduction targets for the industrial, energy, and transportation sectors - - to meet 1990 levels by 2020, then to meet the target of 40 percent below 1990 levels by 2030. The 2022 Scoping Plan stipulates a target of reducing anthropogenic emissions to 85 percent below 1990 levels by 2045, a 71 percent reduction in air pollution, and a 94 percent reduction in demand for petroleum. The 2022 Scoping Plan adds carbon neutrality as a science-based guide and touchstone for California’s climate work. The 2022 Scoping Plan outlines how carbon neutrality can be achieved by taking bold steps to reduce GHGs to meet the anthropogenic emissions target and by expanding actions to capture and store carbon through California’s natural and working lands and using a variety of mechanical approaches.

The 2022 Scoping Plan provides an approach to decarbonize every sector of the economy to set California on course for a more equitable and sustainable future and to ensure that those who benefit from this transformation include communities hit hardest by climate impacts and ongoing pollution from use of fossil fuels. To accomplish this, the Scoping Plan indicates the following:

- Rapidly moving to zero-emission transportation
- Moving to electric cars, buses, trains, and trucks
- Phasing out use of fossil gas used for heating homes and buildings
- Clamping down on chemicals and refrigerants that are powerful at trapping heat
- Providing communities with sustainable options for walking, biking, and public transit

- Continuing to build out solar arrays, wind turbine capacity, other clean renewable energy
- Increasing new options such as renewable hydrogen for hard-to-electrify end uses
- Ensuring natural and working lands play a robust role in incorporating and storing carbon
- Carbon removal from atmosphere and safely utilizing and storing it

The 2022 Scoping Plan identifies a path to keep California on track to meet its SB 32 GHG reduction target of at least 40 percent below 1990 emissions by 2030.

The 2022 Scoping Plan provides for the following:

- Identifies a technologically feasible, cost-effective path to achieve carbon neutrality by 2045 and a reduction in anthropogenic emissions by 85 percent below 1990 levels
- Focuses on strategies for reducing California's dependency on petroleum to provide consumers with clean energy options that address climate change, improve air quality, and support economic growth and clean sector jobs
- Integrates equity and protecting California's most impacted communities as driving principles throughout the document
- Incorporates the contribution of natural and working lands (NWL) to the state's GHG emissions, as well as their role in achieving carbon neutrality
- Relies on the most up-to-date science, including the need to deploy all viable tools to address the existential threat that climate change presents, including carbon capture and sequestration, as well as direct air capture
- Evaluates the substantial health and economic benefits of taking action
- Identifies key implementation actions to ensure success
- Support healthy and equitable communities
- Adapt to a changing climate and support an integrated regional development pattern and transportation network
- Leverage new transportation technologies and data-driven solutions that result in more efficient travel
- Encourage development of diverse housing types in areas that are supported by multiple transportation options
- Promote conservation of natural and agricultural lands and restoration of habitats

Connect SoCal Guiding Principles

- Base transportation investments on adopted regional performance indicators and MAP-21/FAST Act regional targets
- Place high priority for transportation funding in the region on projects and programs that improve mobility, accessibility, reliability, and safety, and that preserve the existing transportation system
- Assure that land use and growth strategies recognize local input, promote sustainable transportation options, and support equitable and adaptable communities
- Encourage RTP/SCS investments and strategies that collectively result in reduced non-recurrent congestion and demand for single occupancy vehicle use, by leveraging new transportation technologies and expanding travel choices
- Encourage transportation investments that will result in improved air quality and public health, and reduced greenhouse gas emissions
- Monitor progress on all aspects of the Plan, including the timely implementation of projects, programs, and strategies
- Regionally, transportation investments should reflect best-known science regarding climate change vulnerability, in order to design for long term resilience

2.0 Project Description

The Quail Valley Planned Development is designed as a master planned community of 730 dwelling units comprised of 647 single-family residences; 51 equestrian estate lots; 3 large rural lots; approximately 3.2-acre QV HOA Recreation Center; a 26.4 QV Public Park; and an extensive trail system with multi-purpose public trails that connect to the Antelope Valley Backbone Trail System, private trails, bike trails, and semi-improved trails. In addition, approximately 10 acres are reserved for future development of as many as 29 additional single-family detached or multi-family residential units on approximately 878 acres within unincorporated Los Angeles County within the City of Palmdale Sphere of Influence. The Project site is located on the south side of Avenue S, approximately 1.2 miles west of California State Route 14 (SR-14). The location of the Project site is depicted in **Exhibit 2-1 (Regional Location Graphic)** and **Exhibit 2-2 (Project Location Map)**. Two vehicular access points to the Project will extend from A Street and Avenue S and at the extension of Tovey Avenue. An emergency vehicle only egress roadway is located at the southern end of the development envelope. The Project site is not contiguous with the City of Palmdale's corporate boundary although the City owns Avenue S, which is directly adjacent to the Project site.

The entire Project site is comprised of two primary land areas – Area A (Tentative Tract Map 65813) and Area B. Area A occupies approximately 670 acres in the northerly Project site adjacent to Avenue S and will contain the developed portion of the Project site; Area B comprises approximately 210 acres in the higher elevations of the foothills to the ridgeline of the Sierra Pelona Mountains and will be preserved in its entirety as undisturbed by the Project. The site is subject to the City of Palmdale's Hillside Management Ordinance (PMC Chapter 17.100) and includes a density transfer from the steeper Area B to the flatter areas of Area A resulting in the clustering of single-family homes. The transfer and clustering of development align with the purpose and intent of the Palmdale 2045 and City's Hillside Management Ordinance which provides for varied lot sizes locationally buffered from existing development, while preserving the significant ridgelines that form the backdrop of the City's southern skyline. Reference **Exhibit 2-4 (Planned Development Plan)** and **Exhibit 2-5 (Site Plan)** which depict the overall proposed development scheme.

Proposed Annexation

The Project site is not contiguous with the City of Palmdale's corporate boundary although the City owns Avenue S, which is directly adjacent to the Project site. The City of Palmdale is proposing to annex the entire Project site and adjacent surrounding parcels, all within the City's Sphere of Influence boundary. The inclusion of areas outside of the Project boundary (including the Falcon Glen project currently in process), establishes a block of area that is contiguous to the City of Palmdale's corporate boundary. The proposed annexation boundary currently includes 211 assessor parcels (53 parcels within the Project site and 158 additional parcels within unincorporated LA County) that occupy a total of approximately 1,310 acres.

Exhibit 2-3 (Annexation Boundary) depicts the proposed Annexation Boundary which includes not only the Quail Valley Project site, but other parcels bordering and nearby to the Quail Valley Project site.

Exhibits 2-3A through 2-3D depict several potential annexation area boundary alternatives that LAFCO may consider in its deliberation about determination of the final Annexation area boundary, which mainly affect the northwest area bounding the existing City of Palmdale boundary and Project site boundary.

Exhibit 2-3A (Annexation Boundary: Alternative 1) excludes 91 parcels at approximately 148 acres, excluding all existing County neighborhoods to the west of Tierra Subida Avenue along the City of Palmdale border and existing County neighborhoods to the east and west of Tovey Avenue.

Exhibit 2-3B (Annexation Boundary: Alternative 2) excludes 96 parcels from the original annexation boundary at approximately 138 acres, excluding all existing neighborhoods within Exhibit 2-3A, though it includes a strip of parcels west of the centerline of Tovey Avenue.

Exhibit 2-3C (Annexation Boundary: Alternative 3) excludes 35 parcels from original annexation boundary at approximately 33 acres, excluding the existing neighborhood east and west of Tovey Avenue located south of Avenue S.

Exhibit 2-3D (Annexation Boundary: Alternative 4) excludes 102 parcels from original annexation boundary at approximately 250 acres, excluding all existing neighborhoods as indicated in Exhibit 2-3A, as well as parcels west of 10th Street West north of the California Aqueduct and the City of Palmdale boundary and the 45-acre three parcel area adjacent to Tierra Subida Avenue.

Exhibit 1-5 (Annexation Boundary) in the Planned Development document and **Exhibit 2-3 (Annexation Boundary)** in this environmental impact report depict an Annexation area briefly analyzed in topical areas most relevant to LAFCO, in this environmental impact report. A reduction in the Annexation area arising from LAFCO's final decision would necessarily result in fewer, or less substantial environmental impacts.

In addition to vacant parcels and lots with existing homes, the annexation area includes the approximate 162.45-acre Falcon Glen project site, which is located in unincorporated Los Angeles County northerly of the Quail Valley Project site, across Avenue S. The Falcon Glen Assessor's Parcel Numbers are 3004-014-001, 004, 005, 008, 009, 012, 018, and 3004-014-023 through 031. The City has established pre-zoning for the Falcon Glen project site, as depicted on the City Zoning Map (June 29, 2023). The City also has established a General Plan Land Use designation and a pre-zoning designation of Single Family Residential 3 (SFR 3) for Falcon Glen. The zoning designation is intended for detached single-family subdivisions containing the City's standard 7,000 square foot minimum lot size, though other lot configurations are possible under the City's current zoning code. These designations would allow a maximum 975 dwelling units for Falcon Glen. This number of dwelling units would yield approximately 3,510 new residents.

EXHIBIT 2-1 – REGIONAL LOCATION GRAPHIC

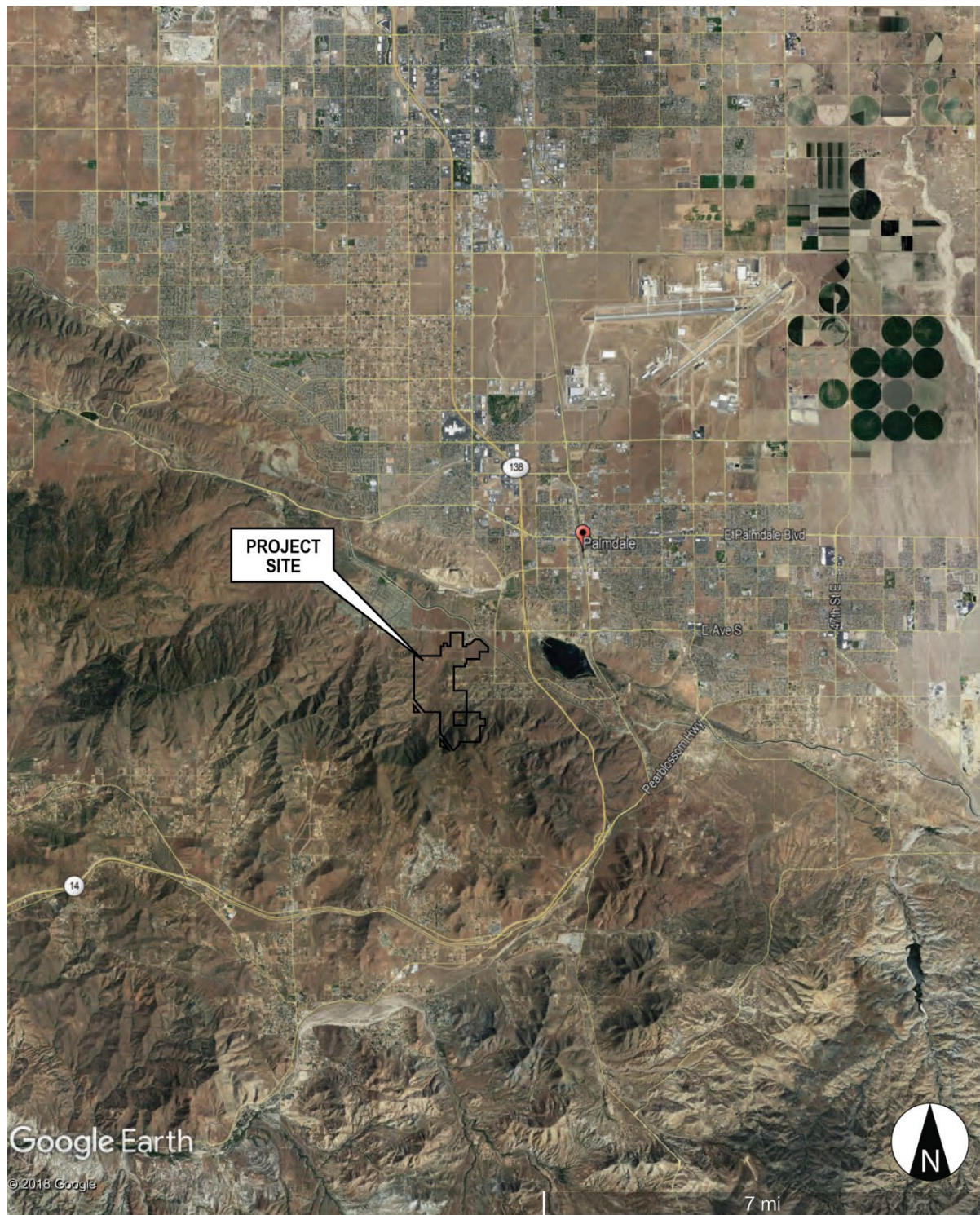


EXHIBIT 2-2 – PROJECT LOCATION MAP

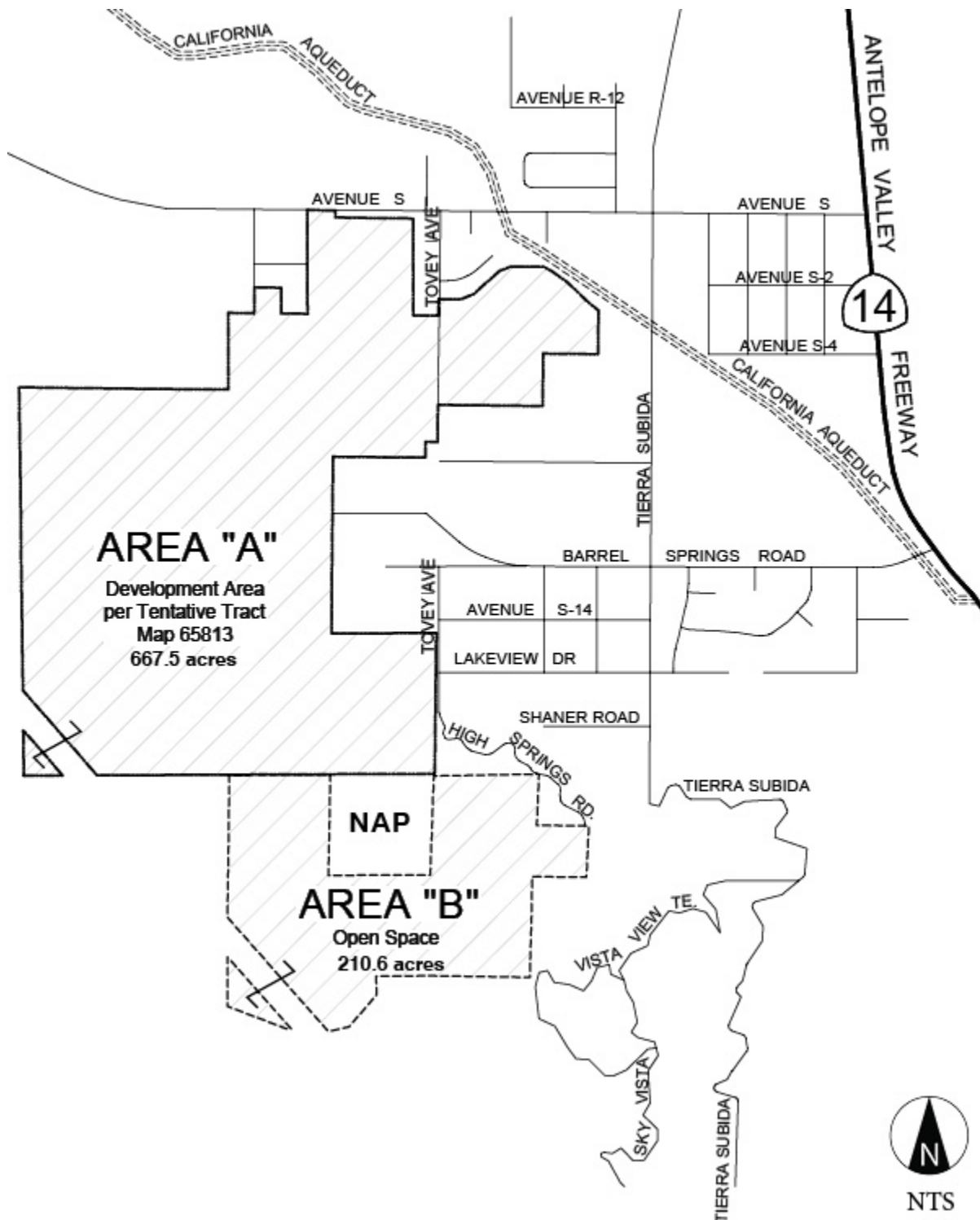
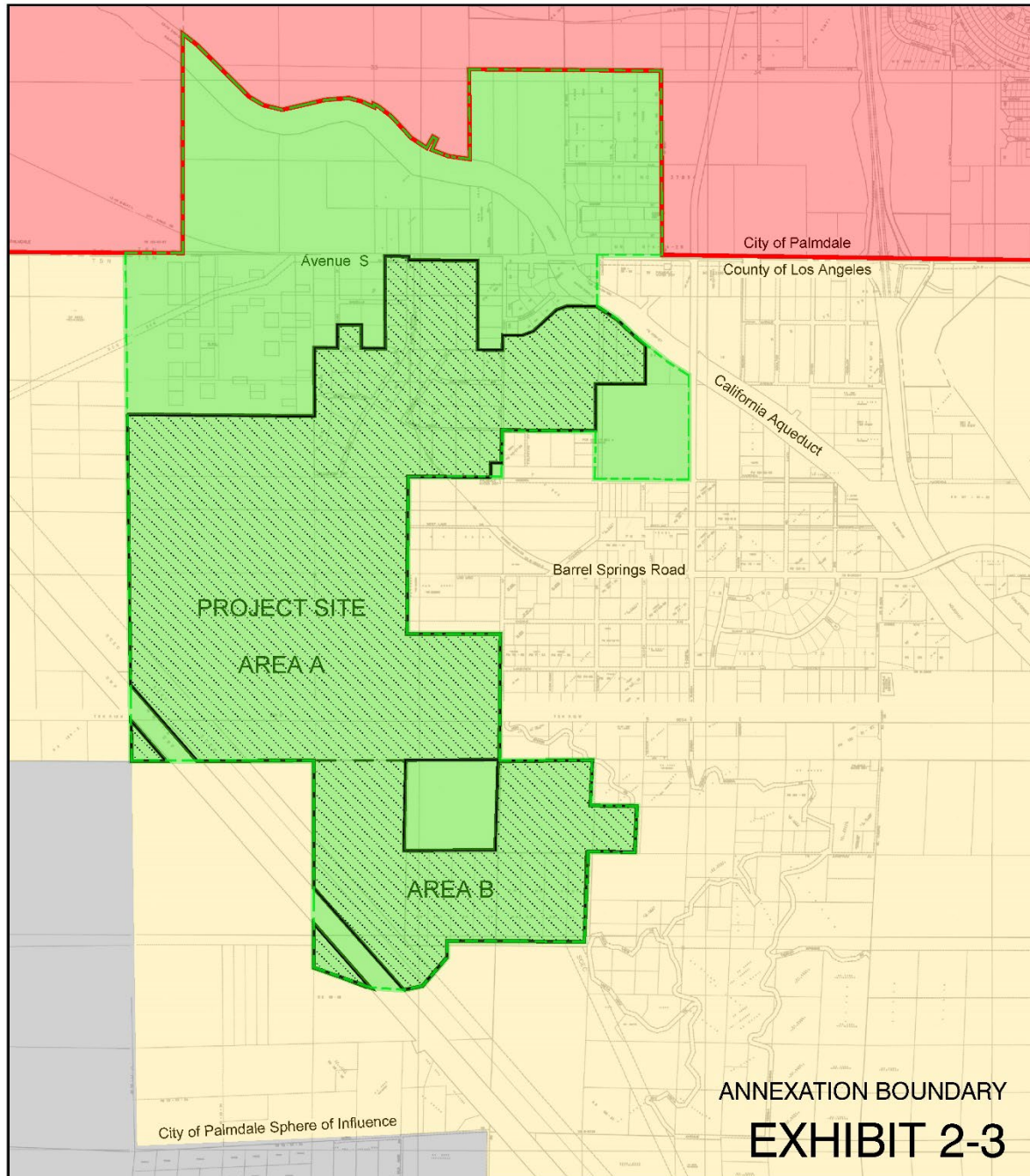
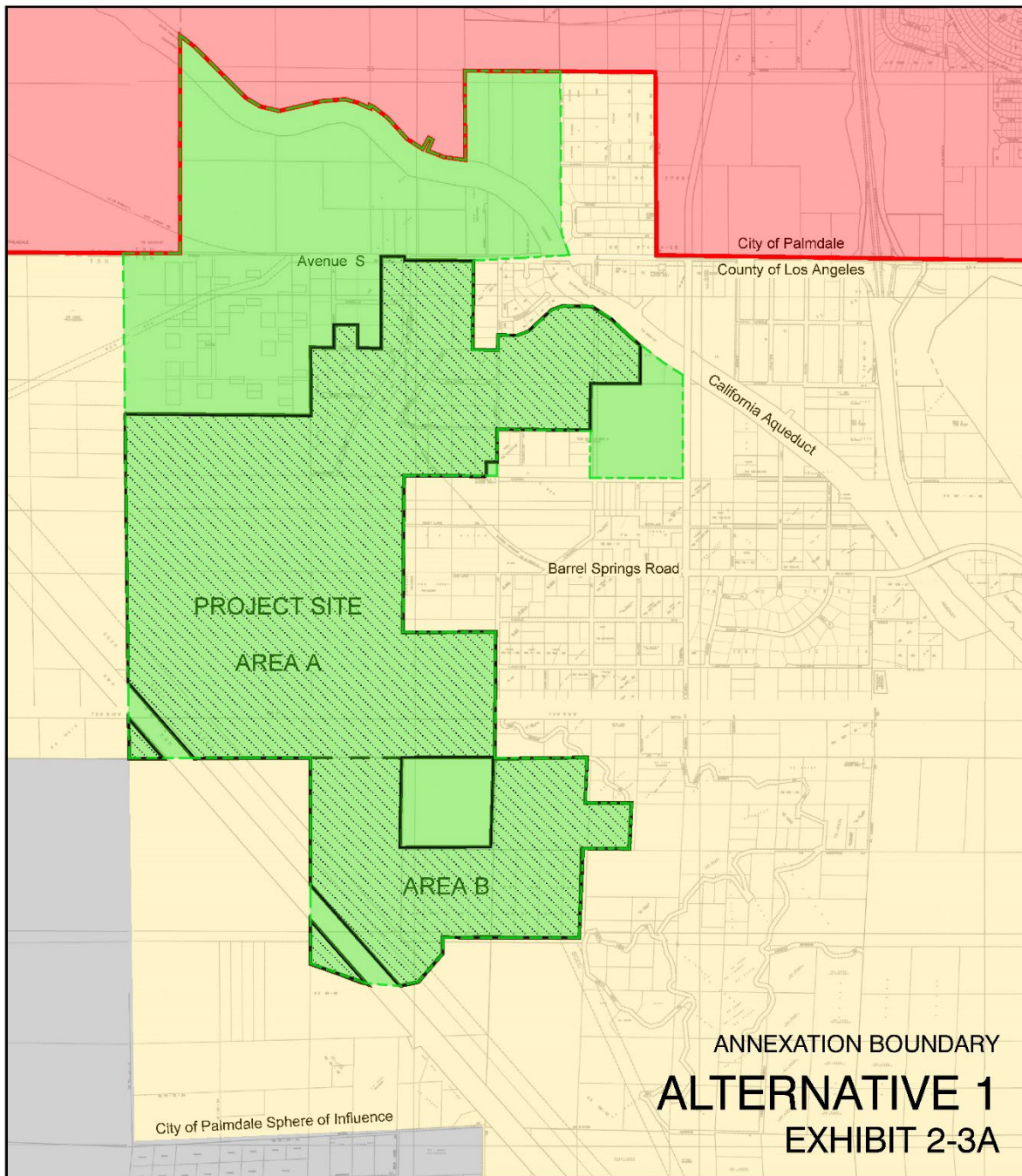
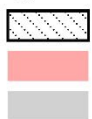


EXHIBIT 2-3 – ANNEXATION BOUNDARY



Legend

	Project Boundary		Proposed Annexation Boundary
	City of Palmdale		City of Palmdale Sphere of Influence
	Unincorporated		

EXHIBIT 2-4A – ANNEXATION BOUNDARY: ALTERNATIVE 1*Excludes Existing Neighborhoods***Legend**

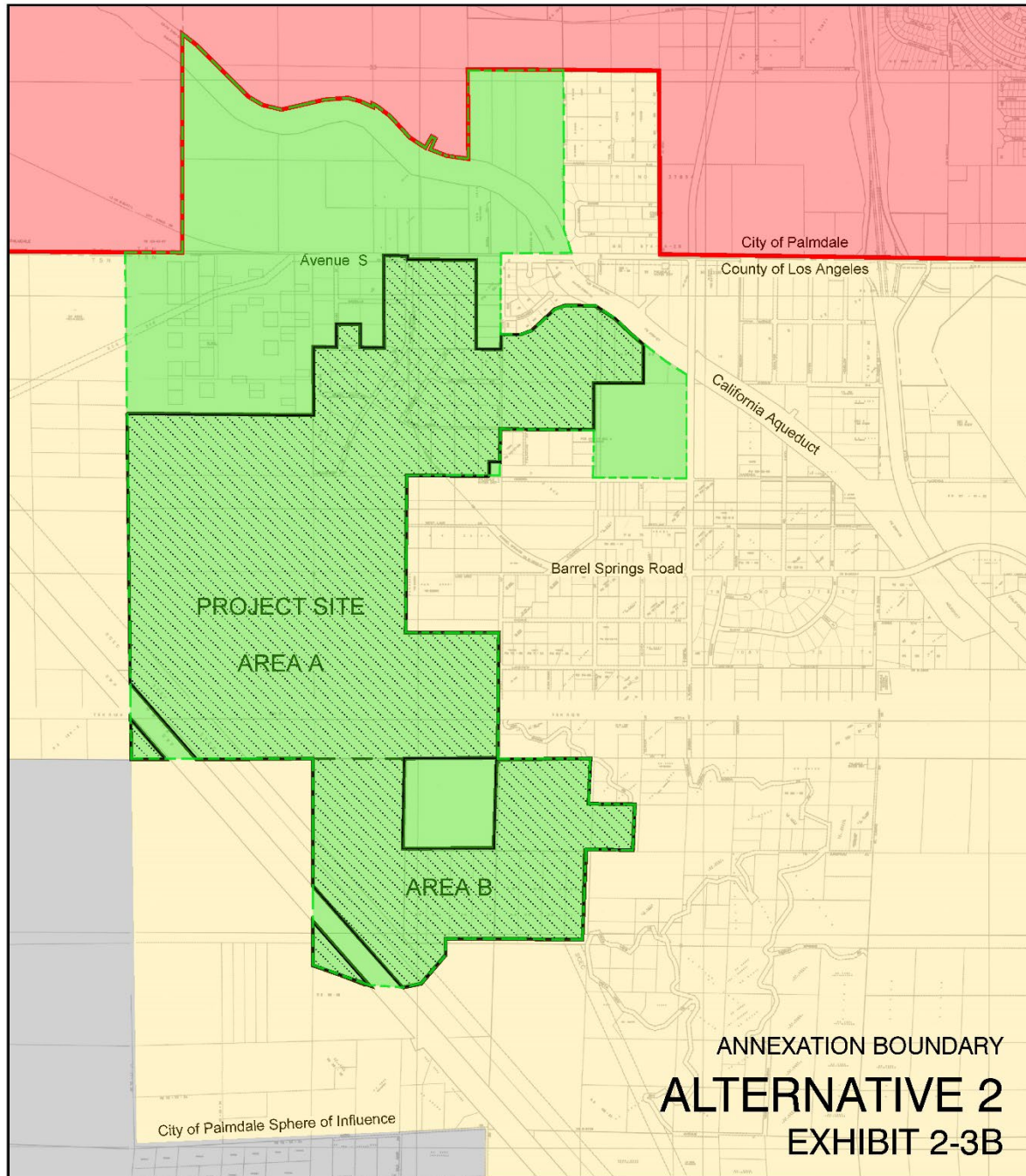
Project Boundary
City of Palmdale
Unincorporated



Proposed Annexation Boundary
City of Palmdale Sphere of Influence

EXHIBIT 2-5B – ANNEXATION BOUNDARY: ALTERNATIVE 2

Excludes Existing Neighborhoods; Except Annexation Includes To Centerline of Tovey Avenue

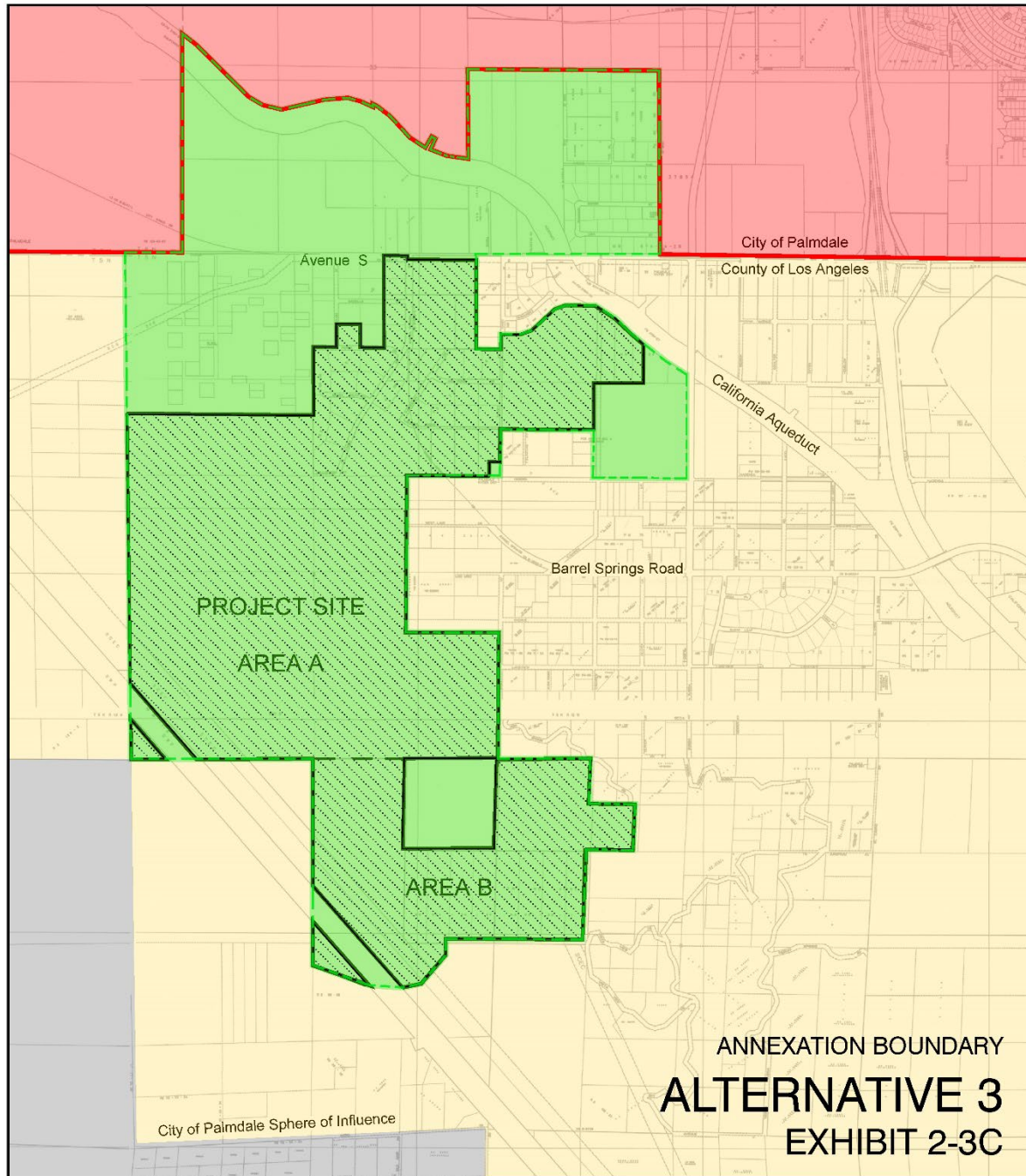


Legend

	Project Boundary		Proposed Annexation Boundary
	City of Palmdale		City of Palmdale Sphere of Influence
	Unincorporated		

EXHIBIT 2-6C – ANNEXATION BOUNDARY: ALTERNATIVE 3

Excludes Existing Tovey Avenue Neighborhood

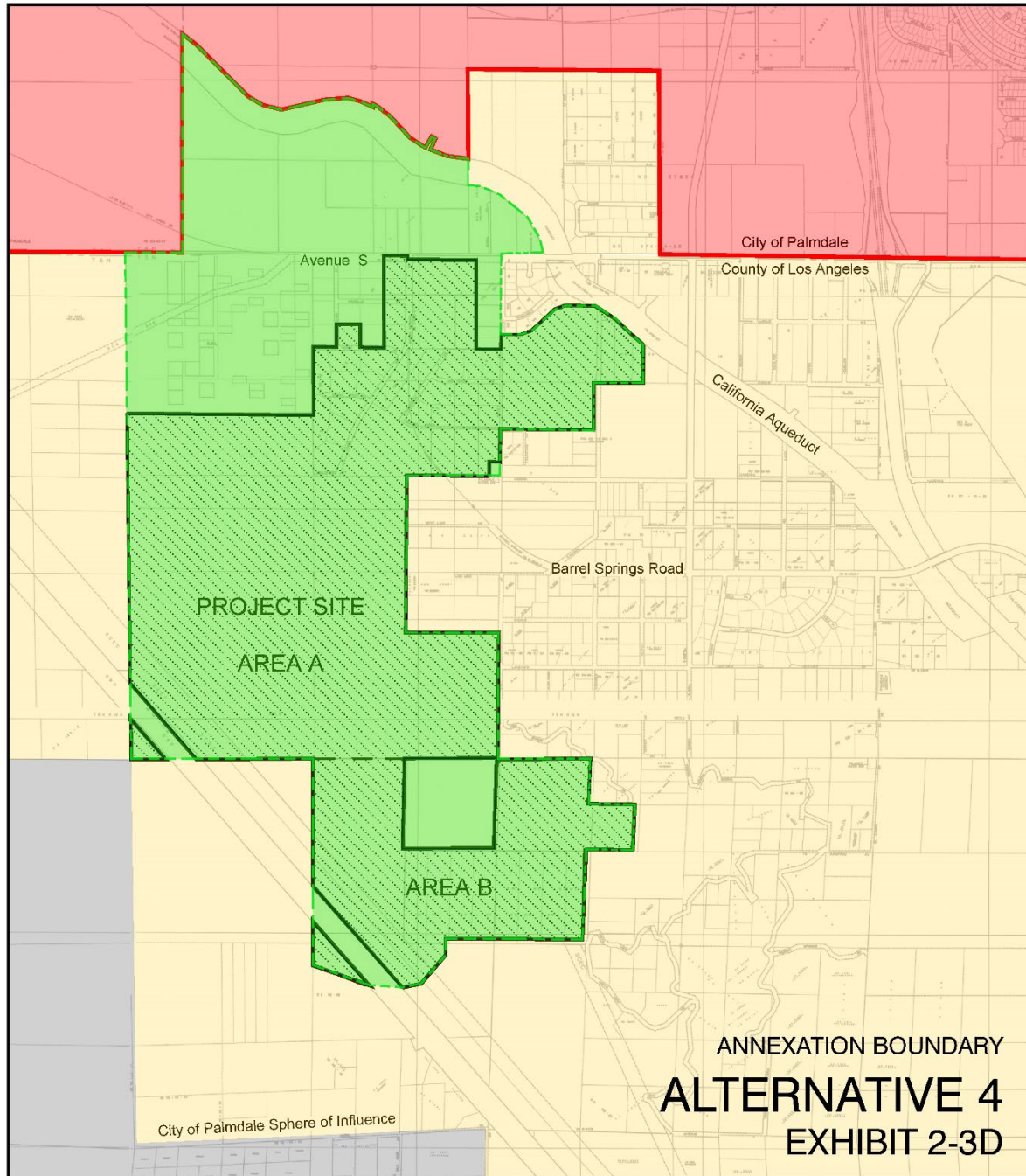


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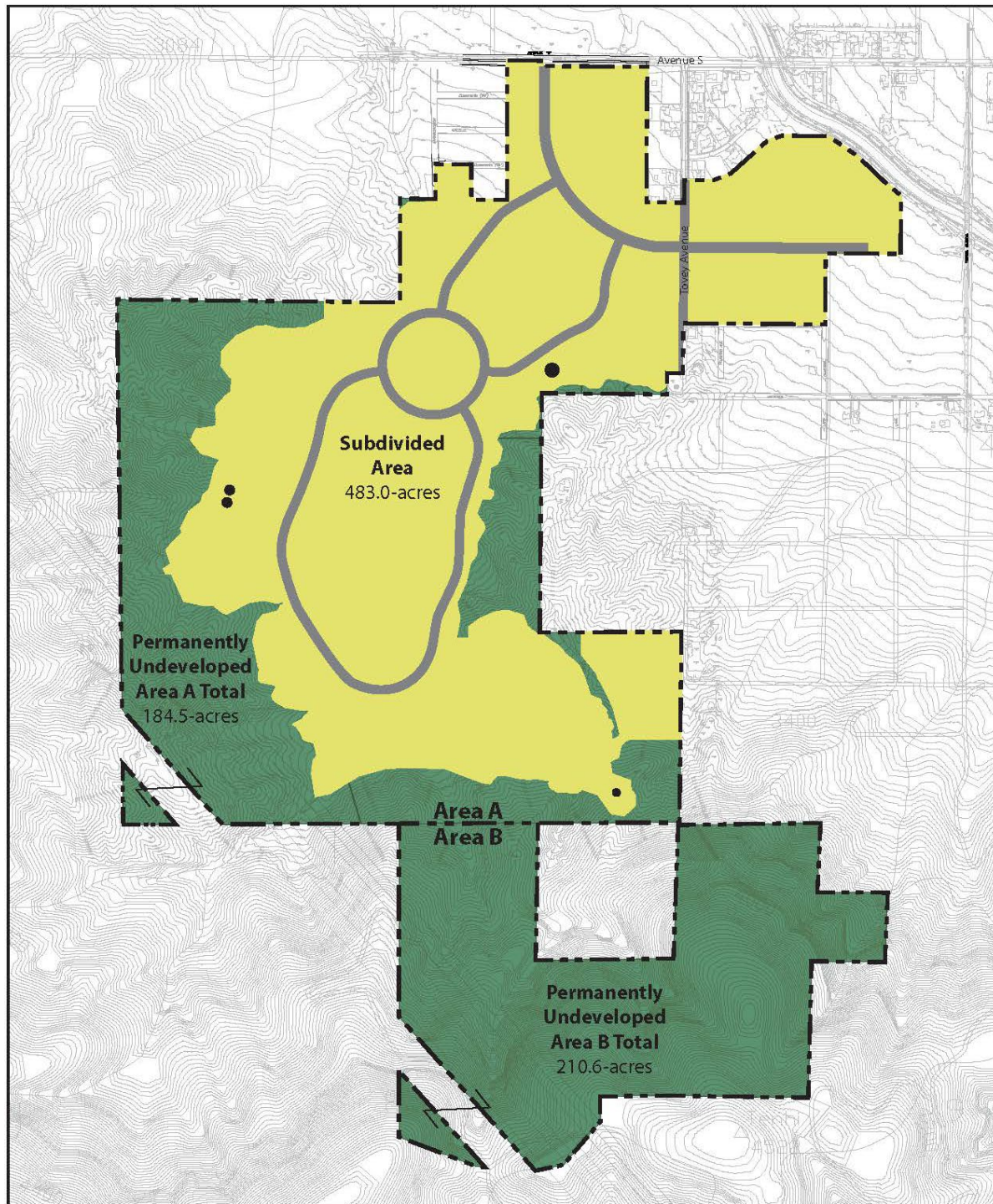
	Project Boundary		Proposed Annexation Boundary
	City of Palmdale		City of Palmdale Sphere of Influence
	Unincorporated		

EXHIBIT 2-7D – ANNEXATION BOUNDARY: ALTERNATIVE 4

Excludes Existing Neighborhoods; Except Annexation Includes To Centerline of Tovey Avenue and Excludes Area Adjacent to Tierra Subida Avenue

**Legend**

	Project Boundary		Proposed Annexation Boundary
	City of Palmdale		City of Palmdale Sphere of Influence
	Unincorporated		

EXHIBIT 2-8 – PLANNED DEVELOPMENT PLAN**Legend**

- | | |
|--|--|
|  Subdivided Area |  Project Boundary |
|  Permanently Undeveloped Area |  Water Tank |

EXHIBIT 2-9 – SITE PLAN



The entire property is contained within the Sphere of Influence of the City of Palmdale and has existing General Plan and pre-zoning designations established by the City. These designations recently underwent revisions under the Palmdale 2045 General Plan Update (September 2022), and subsequent comprehensive city-wide Zoning Ordinance adoption (March 2023). Though a General Plan Amendment and Zone Change were anticipated at the time the applications for the Quail Valley Project were submitted, the recent updates have eliminated the need for these changes. Under the current General Plan and Zoning designations, with incorporation of this Planned Development and in consideration of the City Hillside Management Ordinance, upon annexation the overall Project will be consistent with the current Land Use and Zoning.

The site carries City pre-annexation General Plan designations of LDR (Low Density Residential – Up to 1 du/ac), and SFR1 (Single Family Residential – Up to 2 du/ac). The site also carries Prezoning designations of PZ-LDR (Prezone Low Density Residential – up to 1 du/ac) and PZ-SFR1 (Prezone Single-Family Residential – 1, Up to 2 du/ac), as shown on **Exhibit 2-6, (Existing Land Use & Zoning)**.

The existing City General Plan designations for properties surrounding the site consist of primarily LDR to the south, east, and west; and SFR3 (0-6 du/ac) across Avenue S to the north, and; Specific Plan for properties further to the northwest. The existing Zoning designations for properties surrounding the site are also shown on Exhibit 1-3, Existing Land Use & Zoning, and primarily consist of PZ-LDR to the south, east, and west; PZ-SFR3 across Avenue S to the north, and; SP-Anaverde Nuevo further to the northwest.

As shown on **Exhibit 2-7 (Proposed Land Use & Zoning)**, upon approval of the Planned Development and completion of the annexation process, the “Pre-zone” designations will no longer be applicable, and the proposed zoning designations will be SFR1 (Single Family Residential 1 – Up to 2 du/ac) and LDR (Low Density Residential - Up to 1 du/ac), consistent with the General Plan designations. A Planned Development designation will be applied to the entire project area as shown in Exhibit 1-4, Proposed Land Use and Zoning. In addition to the Land Use and Zoning designations, and the elements of this Planned Development document, the property is also subject to the City’s Hillside Management Ordinance (Article 17-100 of the Zoning Code). Under the Hillside Management Ordinance, the entire density of Area B will be transferred to Area A.

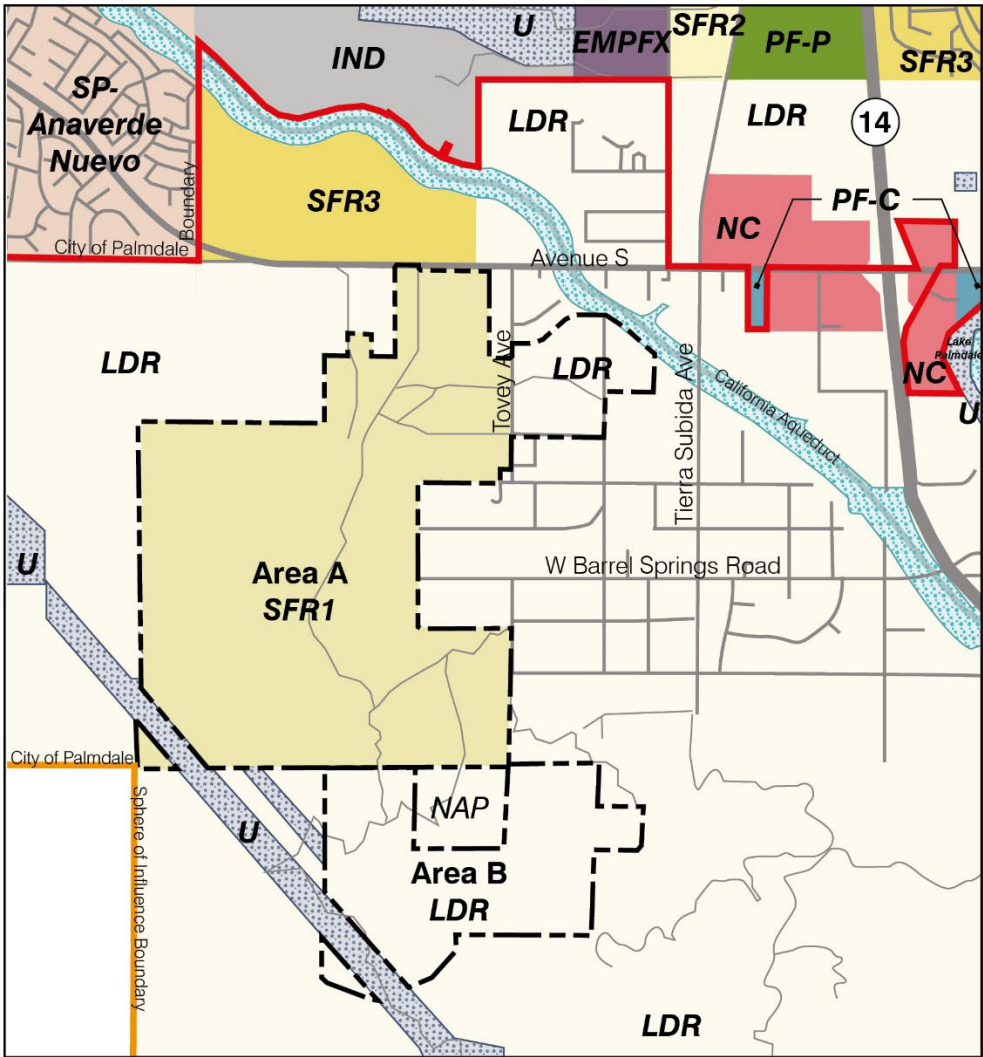
Other Anticipated Required Discretionary Actions

The following permits, as approved, will likely be necessary to complete implementation of the Quail Valley Project.

- Tentative Tract Map
- Conveyance Tentative Tract Map
- City Pre-Annexation and Development Agreement
- Palmdale Water District Imported Water Supply Exchange Agreement
- Local Agency Formation Commission Approval of Annexation, Service Agreements, and Annexation into Service Districts, (and potential Spheres of Influence Amendments)
- Wastewater District Annexation (and potential Sphere of Influence Amendment)
- California State Department of Fish and Wildlife Permits
- Regional Water Quality Control Board Permits
- Antelope Valley Air Quality Management District Permits
- Landscape Lighting and Management District or Other Assessment District Participation
- Community Facilities District Participation
- Palmdale School District or other entity Mello-Roos Community Facilities District Annexation (if necessary)

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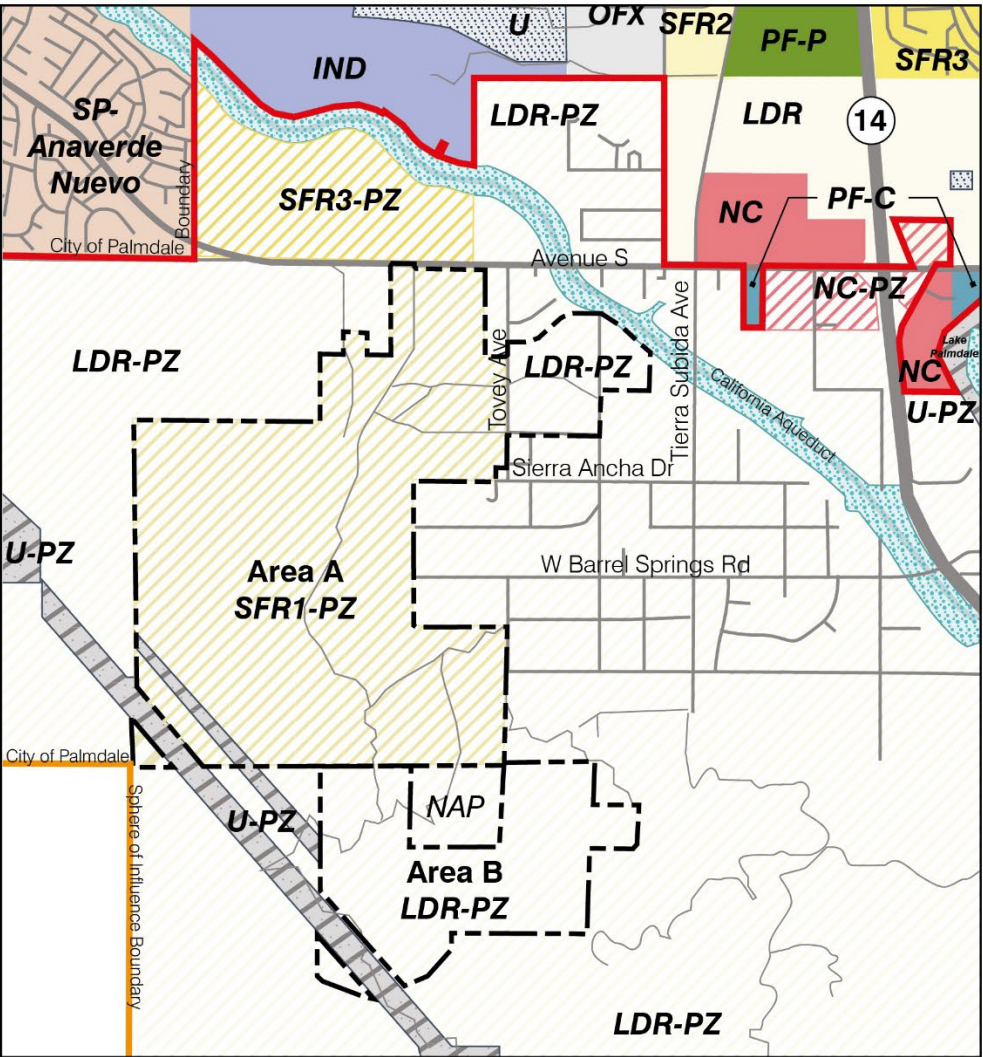
EXHIBIT 2-10 – EXISTING LAND USE AND PLANNING



EXISTING GENERAL PLAN LAND USES

Legend

- | | |
|---|-------------------------------|
| Low Density Residential (LDR) (1 du/ac) | U (Utilities) |
| SFR1 (0-2 du/ac) | IND (Industrial) |
| SFR2 (0-4 du/ac) | PF-P (Public Facility - Park) |
| SFR3 (0-6 du/ac) | PF-C (Civic) |
| SP-Anaverde Nuevo | |
| NC (Neighborhood Commerical) | |
| EMPFX (Employment Flex) | |



EXISTING ZONING

Legend

- | | |
|----------------------|-------------------|
| LDR (1 du/ac) | OFX (Office Flex) |
| SFR2 (0-4 du/ac) | U |
| SFR2 (0-4 du/ac) | IND |
| SFR3 (0-6 du/ac) | PF-P |
| SP-Anaverde Nuevo | PF-C |
| Planned Developments | |
| NC | |

PREZONE DESIGNATIONS

- | |
|--------------------------------|
| LDR-PZ (Prezone LDR - 1 du/ac) |
| SFR1-PZ (0-2 du/ac) |
| SFR3-PZ (0-6 du/ac) |
| NC-PZ |
| U-PZ |

EXISTING LAND USE & ZONING

Summary

EXISTING General Plan Land Use

- AREA A
- SFR1 (Up to 2 du/ac)
 - LDR (Up to 1 du/ac)
- AREA B
- LDR-PZ (Up to 1 du/ac)

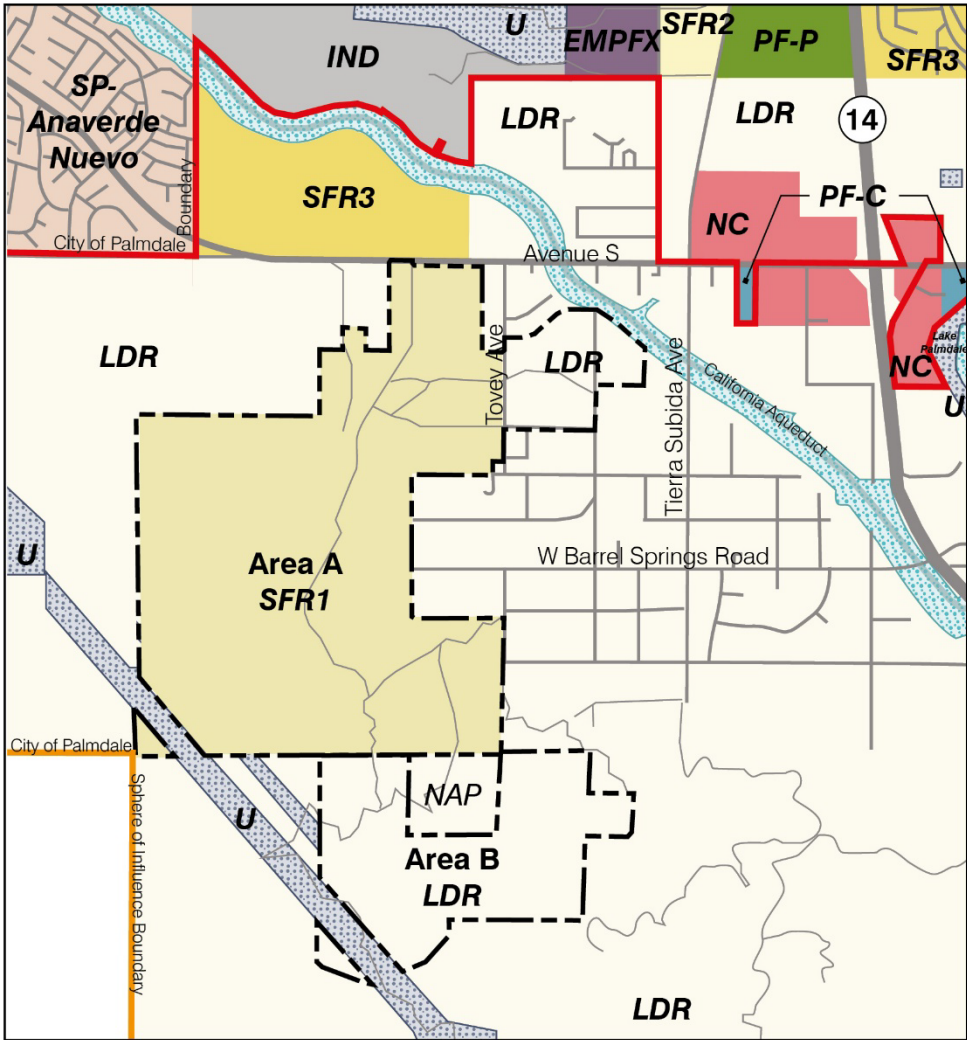
EXISTING Zoning

- AREA A
- SFR1-PZ (Up to 2 du/ac)
 - LDR-PZ (Up to 1 du/ac)
- AREA B
- LDR-PZ (Up to 1 du/ac)

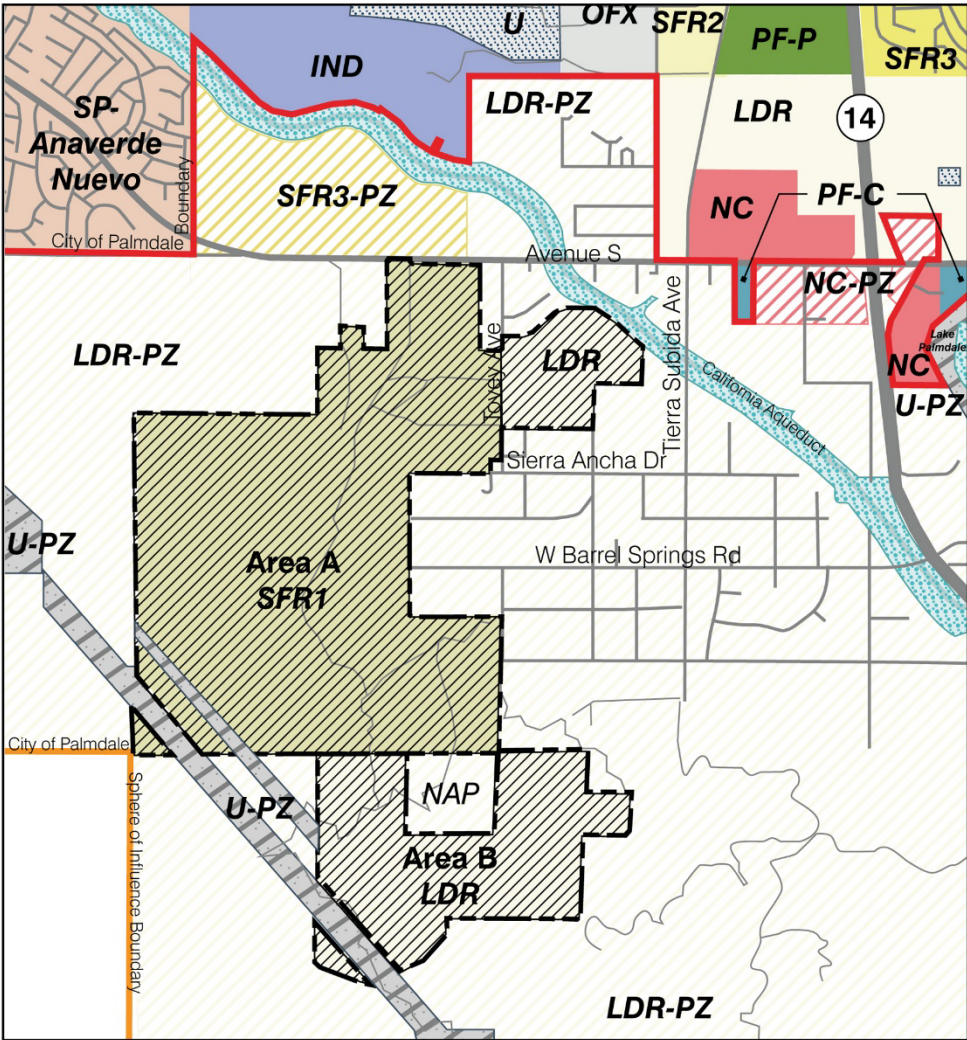
The Quail Valley Planned Development project is consistent with the General Plan and Zoning designations. The project is subject to a Planned Development Special Planning Area designation upon approval.

NOTE:
NAP = "Not A Part"

EXHIBIT 2-11 – PROPOSED LAND USE AND PLANNING



PROPOSED GENERAL PLAN LAND USES



PROPOSED ZONING

Legend

- | | |
|---|-------------------------------|
| Low Density Residential (LDR) (1 du/ac) | U (Utilities) |
| SFR1 (0-2 du/ac) | IND (Industrial) |
| SFR2 (0-4 du/ac) | PF-P (Public Facility - Park) |
| SFR3 (0-6 du/ac) | PF-C (Civic) |
| SP-Anaverde Nuevo | |
| NC (Neighborhood Commerical) | |
| EMPFX (Employment Flex) | |

Legend

- | | |
|----------------------|-------------------|
| LDR (1 du/ac) | OFX (Office Flex) |
| SFR2 (0-4 du/ac) | U |
| SFR2 (0-4 du/ac) | IND |
| SFR3 (0-6 du/ac) | PF-P |
| SP-Anaverde Nuevo | PF-C |
| Planned Developments | |
| NC | |

PREZONE DESIGNATIONS

- | |
|--------------------------------|
| LDR-PZ (Prezone LDR - 1 du/ac) |
| SFR1-PZ (0-2 du/ac) |
| SFR3-PZ (0-6 du/ac) |
| NC-PZ |
| U-PZ |

NOTE:
NAP = "Not A Part"

PROPOSED LAND USE & ZONING

Summary

PROPOSED General Plan Land Use

- AREA A**
- SFR1 (0-2 du/ac)
 - LDR (0-1 du/ac)

- AREA B**
- LDR (0-1 du/ac)

PROPOSED Zoning

- AREA A**
- SFR1 (0-2 du/ac)
 - LDR (0-1 du/ac)

- AREA B**
- LDR (0-1 du/ac)

- OVERALL**
- Special Planning Area - Planned Development

The Quail Valley Planned Development project is consistent with the General Plan and Zoning designations. The project is subject to a Planned Development Special Planning Area designation upon approval.

The proposed 730 residential development concept is to create a unique single-family residential community nestled within the gently rising valley portion of the Project site entirely within the northerly Area A property. Six lot categories are proposed and are segmented into Lot Groups. Lot sizes will vary within each Lot Group and thereby provide a mix of dwelling opportunities throughout the Quail Valley community. Twenty-eight of the proposed 730 dwellings are planned as future residential units (single-family, multi-family, or a combination of both) to be located on three lots south of the QV HOA Recreational Center, with one lot a residual parcel from an older Record of Survey located at the northwest area of the project. These units will be constructed according to future market demand. The area for the 28 units initially will serve as a temporary debris and detention basin. The Planned Development provides for additional transfer of dwelling units to this area so long as the overall project does not exceed 730 dwelling units. The remaining approximately 395 acres of the Project site (45 percent of the total Project site area) will be retained as permanent open space as part of the Project. The following **Table 2-1 (Land Use Summary Table)** provides a summary of proposed land uses within Quail Valley.

Table 2-1 – Land Use Summary			
LAND USE	DWELLING UNITS	ACRES ¹	DENSITY (DU/AC)
<i>SUBDIVIDED AREA</i>			
<i>Residential Area</i>			
Lot Size 1 (Single-Family Detached)	276	118.2	2.34
Lot Size 2 (Single-Family Detached)	248	141	1.76
Lot Size 3 (Single-Family Detached)	123	69.2	1.78
Lot Size 4 (Rural Residential)	51	64.4	0.79
Lot Size 5 (Large Rural Residential)	3	16.9	0.18
Lot Size 6 (Single-Family De- or Attached)	29 ²	10.1	2.87
<i>SUB-TOTAL</i>	701 (730 ³)	417.1 (48%)	1.68 du/ac
<i>Specialty Lots</i>			
QV HOA Recreation Center		3.2	
QV Public Park		26.4	
Archaeological Site		1.1	
Utilities/Detention Basins		35.12	
<i>SUB-TOTAL</i>		65.9 (8%)	
<i>SUBDIVIDED AREA TOTAL</i>	730	483.0 (55%)	
<i>PERMANENTLY UNDEVELOPED AREA ⁴</i>			
Area A ⁴		184.5	
Area B		210.6	
<i>PERMANENTLY UNDEVELOPED AREA TOTAL</i>		395.1 (45%)	
TOTAL (gross acres)	730 DUs	878.1 ac	0.83 du/ac

¹ Acres include internal streets, slopes, and other associated development elements used to calculate density.

² These 29 units (Lot Size 1 or Lot Size 6, condominium, or combination thereof) depend on market conditions during phasing or thereafter; resulting in a maximum of 730 units. Allocation for the residual lot at the northwest edge of the project by lot 772, designated as NAP on the Tentative Tract Map and Technical Site Plan (Appendix A) is included in the referenced 29 lots but not included in the average lot size calculations contained in this document.

³ The total unit count maximum of 730 units is inclusive of the 29 future units.

⁴ The Permanently Undeveloped Area in Area A includes an estimated 12,701 linear feet of five-foot wide semi-improved hillside trails (5.83 acres utilizing a 20' wide easement), and 2.7 acres of public park, primarily trail, by easement or on City basin property at Planning Area 8.

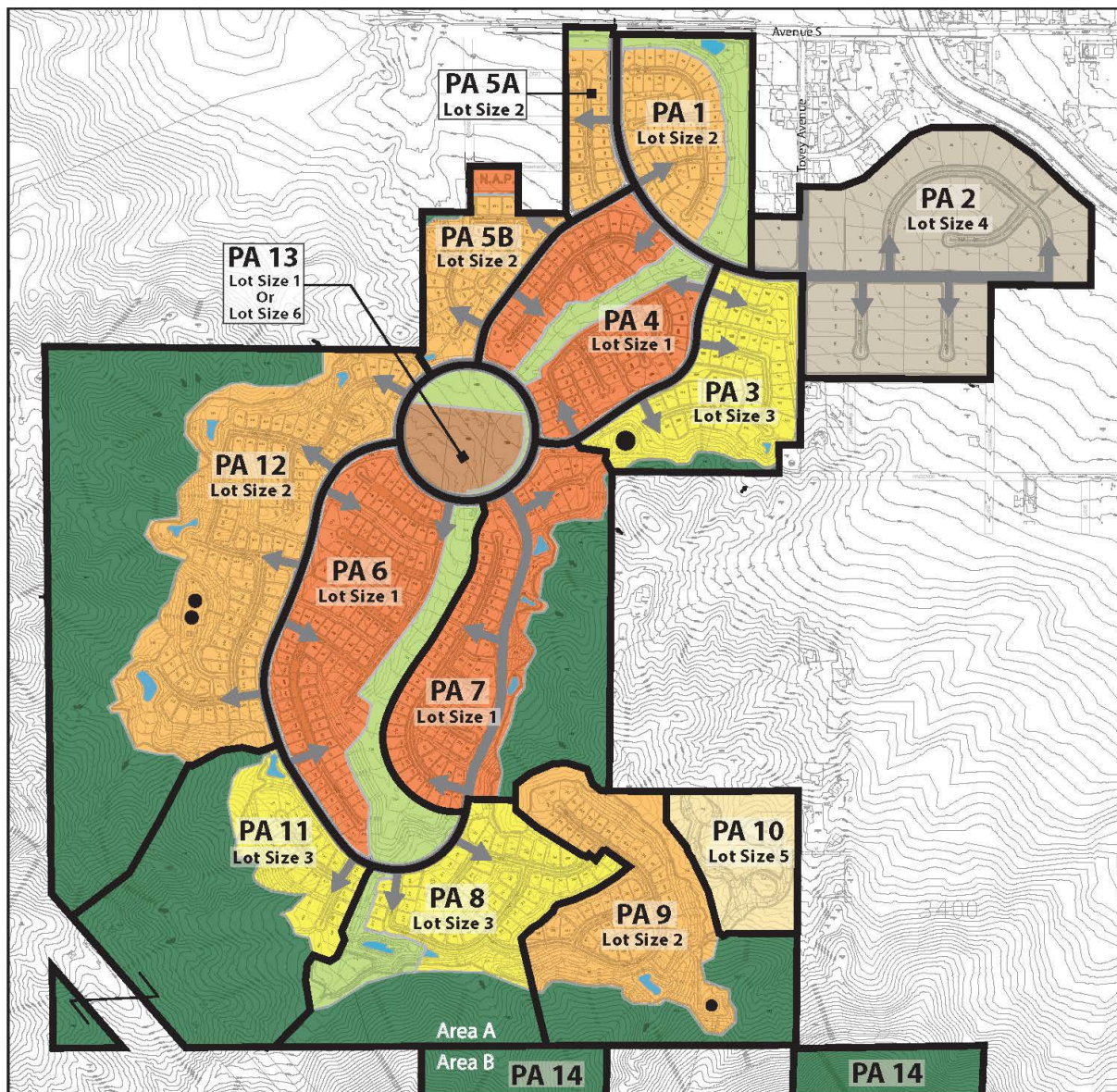
Development Planning Areas and Lot Sizes

The Project offers a variety of upscale residential lot configurations throughout the Project site. Residential lot configurations are divided into six lot categories (Lot Groups) that are defined by minimum lot width, minimum lot depth, and minimum lot area as referenced in **Exhibit 2-8 (Planning Areas)**. The following Table 2 presents additional information about the proposed lot configurations.

Table 2-2 – Residential Lot Sizes			
Lot Type	Min. Lot Size (sf)	Avg. Lot Size (sf)	Dwelling Units
Lot Size 1 (Single-Family Detached)	7,000	10,242	276
Lot Size 2 (Single-Family Detached)	7,500	11,269	248
Lot Size 3 (Single-Family Detached)	9,000	12,244	123
Lot Size 4 (SFD, Rural Residential)	43,560 (1-acre)	46,084	51
Lot Size 5 (SFD, Large Rural Residential)	217,800 (5-acres)	245,445	3
Lot Size 6 (Single-Family Detached or Attached)	3,200	3,200	29 ¹

¹ These 29 units (Lot Size 1 or Lot Size 6, condominium, or combination thereof) depend on market conditions during phasing or thereafter; resulting in a maximum of 730 units. Allocation for the residual lot at the northwest edge of the project by lot 772, designated as NAP on the Tentative Tract Map and Technical Site Plan (Appendix A) is included in the referenced 29 lots but not included in the average lot size calculations contained in this document.

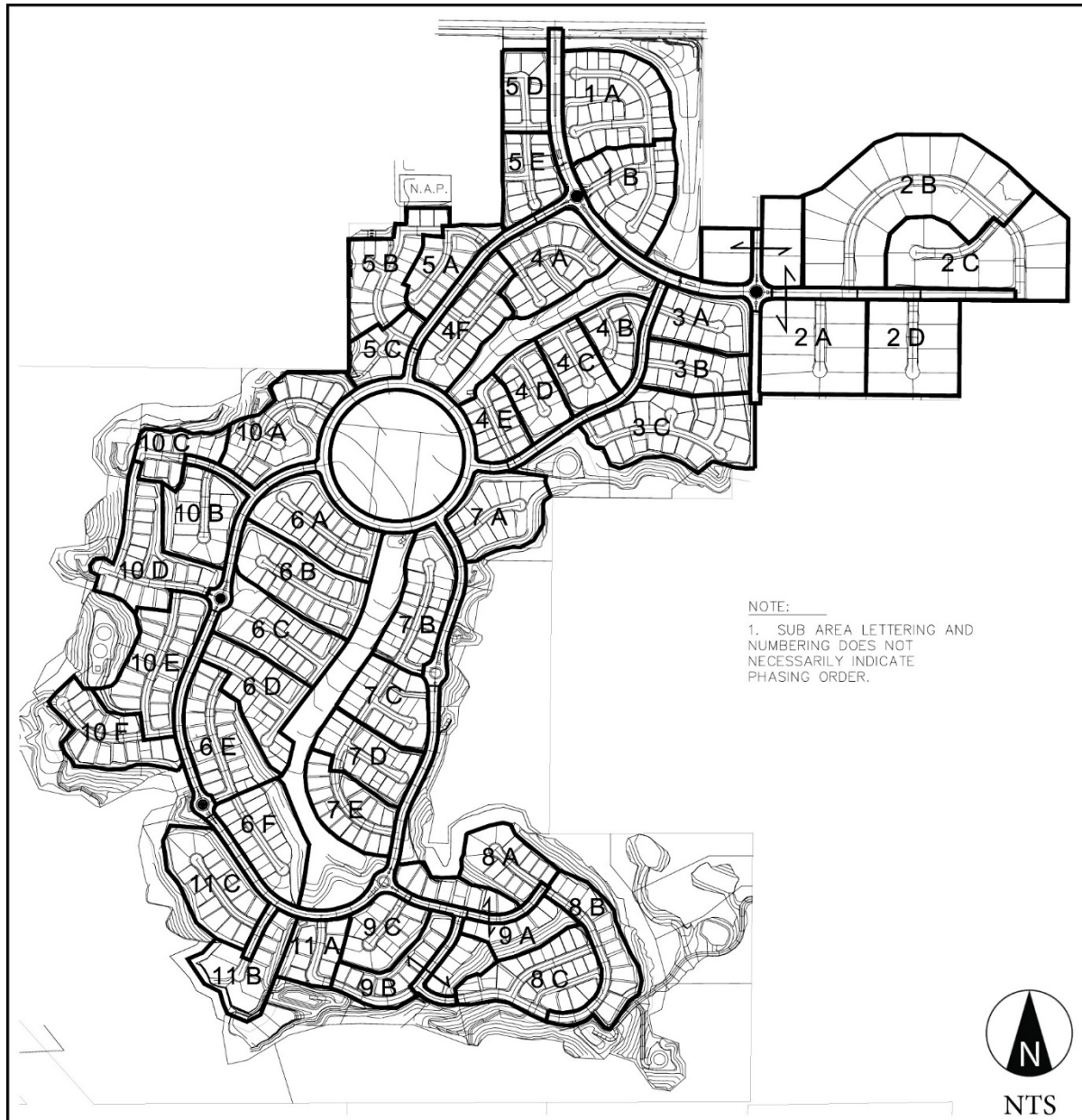
EXHIBIT 2-12 – PLANNING AREAS

**Legend**

	Planning Area Boundary		Lot Size 4		Permanently Undeveloped Area
	Lot Size 1		Lot Size 5		Drainage Basin
	Lot Size 2		Lot Size 6 and/or Lot Size 1		Water Tank
	Lot Size 3		Greenbelt		

Project development is planned to occur in 13 phases that will respond in part to changing market demand. Individual phases are comprehensively designed to provide all necessary grading, backbone infrastructure, drainage components, circulation and other elements necessary to support the overall development. Reference **Exhibit 2-9 (Project Phasing Plan)**. Project development will occur in conformance with standard practices in large-scale communities with the mass grading, master roadways, and master backbone infrastructure generally completed by a “Master Developer” and internal Planning Area improvements completed by merchant.

EXHIBIT 2-13 – PROJECT PHASING PLAN



Circulation Plan

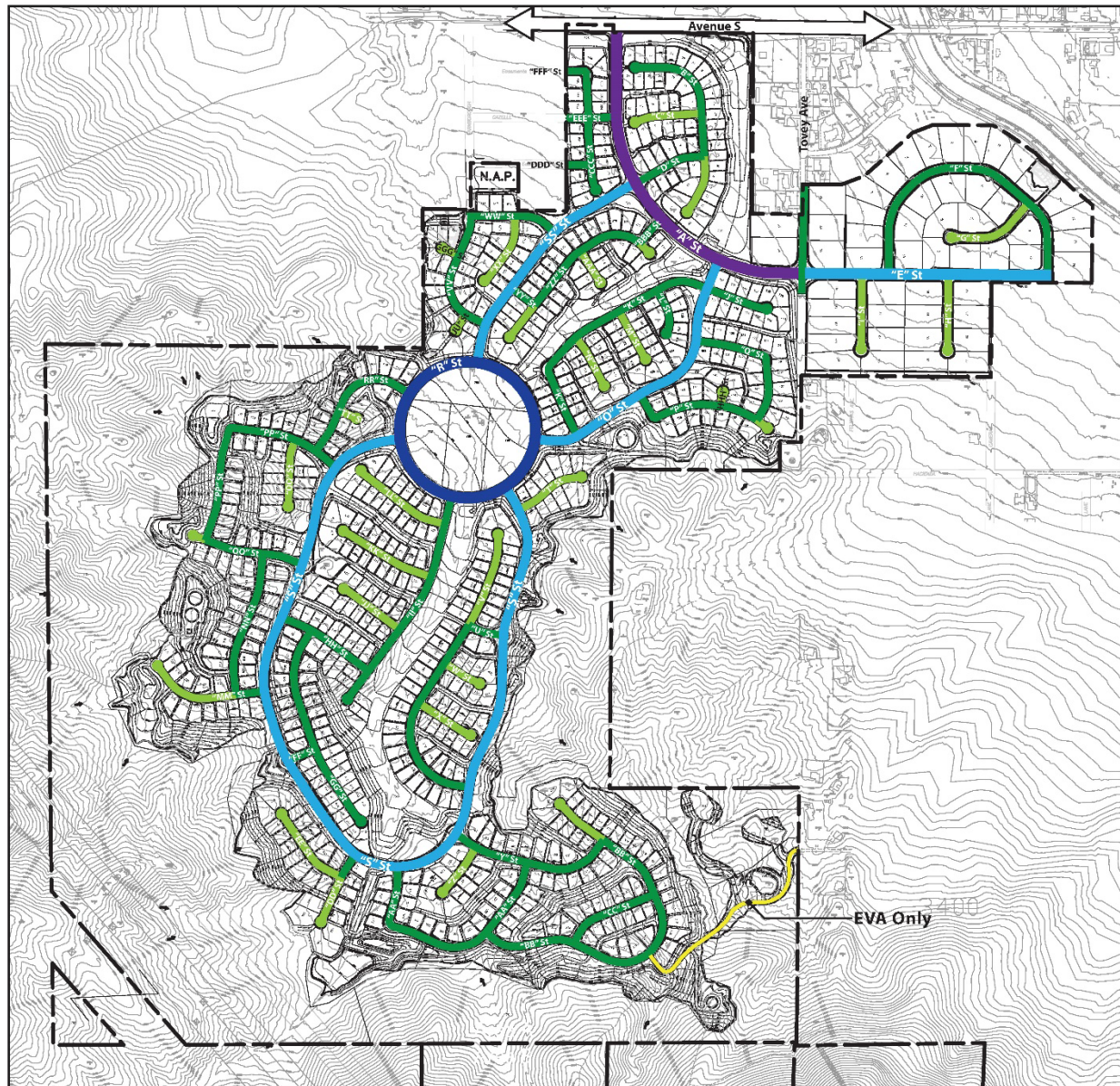
Exhibit 2-10 (Circulation Plan) depicts access points, roadways internal to the Project. Primary access/egress to the Project will be via Avenue S, approximately 1.2 miles west of SR-14. Project development will include modifying the median strip of Avenue S to accept a left-turn lane and to signalize the intersection. All intersections will operate at acceptable levels of service during peak traffic hours as demonstrated within the traffic study prepared for the Project. Secondary access will be provided from the existing publicly dedicated Tovey Avenue. The Project will include a roundabout along Tovey Avenue as a traffic calming measure to slow traffic leaving the Project along Tovey Avenue. Approximately 20 percent of Project-generated traffic (principally from the one-acre rural lots in Planning Area 2 and from Planning Area 3) is anticipated to utilize Tovey Avenue.

The main entry road to the Project, A Street, is to be a modified collector roadway with a 92-foot right-of-way. The Project street network consists of a series of curvilinear collector and local streets and traffic calming roundabouts that serve the various neighborhoods within the Project.

The Project will include an eight-foot-wide asphalt bicycle trail extending approximately 1,180 linear feet along the Project frontage adjacent to Avenue S. The sidewalk within the greenbelt along Avenue S allows pedestrian use separate from the bicycle trail.

Project development will include more than approximately 7 miles of new trails and will provide connections to existing dirt roadways extending from the Project site in multiple directions. The Antelope Valley Backbone Trail system traverses the Project site from the north to the south of the Project site. Incorporation of the backbone multi-purpose trail within the central QV Public Park in conjunction with the trail transition through the central circle and incorporation of the northerly trail area adjacent to the entry roadway accompanied by an extension to the south will provide an enhanced linkage component to the regional trail system. In addition, the one-acre rural lots in Planning Area 2 will have an eight-foot-wide private decomposed granite trail system that will connect to the 12-foot-wide public multi-purpose trail system within the Project. Also, five-foot wide semi-improved trails extending approximately 12,701 linear feet are planned for upper areas of the preserved area in Area A to provide looped pathways with scenic views.

EXHIBIT 2-14 – CIRCULATION PLAN

**Legend**

Major Arterial	64' Connector Street	EVA Only
92' Connector Street	60' Local Street	
79' Connector Street	58' Cul-de-Sac	

Landscape Plan

Exhibit 2-11 (Conceptual Landscape Plan) illustrates the following: proposed landscaped traffic roundabouts; corner enhancements; trail entry portals; entry features; equestrian entry features; the QV HOA Recreation Center; and, the QV Public Park with multi-purpose trail and amenities. The landscape plant palette generally includes high desert and drought tolerant species and will comply with the plan list provided within the Quail Valley Planned Development document. Water conservation will be implemented in landscaping.

QV HOA Recreation Center

The approximately 3-acre Quail Valley HOA Recreation Center (QV HOA Recreation Center) will be located in the central portion of the Project site and will be bounded by the primary loop road. Privately owned and maintained by the HOA, the QV HOA Recreation Center shall be gated and exclusively accessible to the residents that reside within the community. The conceptual plan incorporates a community pool and spa surrounded by shade structures, restrooms, Homeowners Association governed indoor facilities, three pickleball courts, a bocce ball court, open play area, children's activity area, and a 29-space off-street parking lot.

QV Public Park

The approximately 26-acre Quail Valley Public Park (QV Public Park) connects the developed areas of the Project, extends throughout the length of the developed portion of the Project site, and culminates at a trail connection at the southern edge of development. The QV Public Park contains a 12-foot-wide multi-purpose trail of decomposed granite and an adjacent five-foot-wide concrete sidewalk. With over 13 acres of recreational amenities, QV Public Park promotes a vibrant lifestyle and community engagement. The park contains multiple active use facilities, a small amphitheater, tot lots with playground structures, and designated dog parks. A restroom is located in the central portion of the park. The park also includes three (3) parking lots with 12 ADA/EV parking stalls and 118 on-street, dedicated parallel parking stalls along the edge of the park. All greenbelt slopes will be planted with groundcover; those exceeding 15 feet in height will also be planted with trees and shrubs in compliance with City of Palmdale erosion control guidelines. QV Public Park amenities are contained in **Exhibit 2-12 (Amenity Plan)** and further details are found in **Exhibit 3-11A, 3-11B, and 3-11C** of the Planned Development Plan.

Parks and Open Space

Assuming the same number of persons per owner-occupied household as the recently adopted City Housing Element, which is 3.60 persons per household, Quail Valley (730 units) would have an estimated population of 2,628 persons. This would equate to 13.1-acres of parkland required for the Quail Valley Project. The QV Public Park is 26.4 acres. The park includes active use facilities exceeding 13.1 acres, including the Antelope Valley Backbone multi-purpose trail, designated park parking, tot lots, dog parks, restroom facilities, exercise par course, shaded gathering areas, picnic facilities, turf areas, benches, a small amphitheater, and other recreation elements. In addition to the QV Public Park, the Project includes extensions of the Antelope Valley Backbone trail beyond the boundaries of the park both to the north and to the south. Additionally, the Project includes over three miles of semi-improved hillside trails. Coupled with the Project's permanently undeveloped areas (approximately 395 acres), the Project significantly exceeds the City's requirements for the Project's provision of park, recreation and open space.

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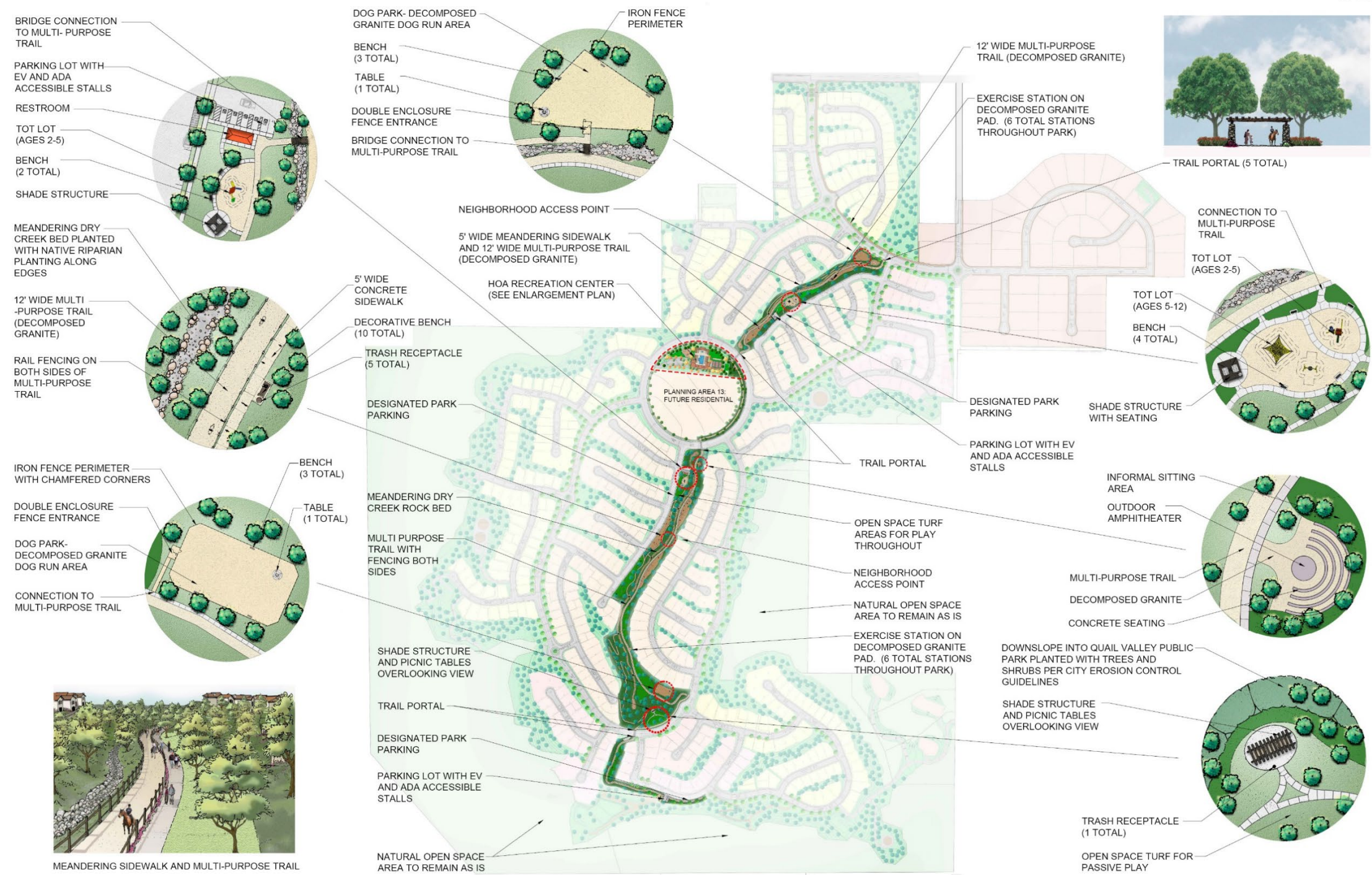
EXHIBIT 2-15 – CONCEPTUAL LANDSCAPE PLAN

CONCEPTUAL LANDSCAPE PLAN



EXHIBIT 2-16 – AMENITY PLAN

AMENITY PLAN



Fuel Modification

The Quail Valley property is located within the Very High Fire Hazard Severity Zone. Project design incorporates direct vehicular access to nearly every part of the Project perimeter. Where direct vehicular traffic is not provided, access is provided by incorporating existing utility company-maintained dirt roadways and short distance direct access from improved roadways. Additionally, the project is developed primarily in the lower, central portion of the valley, thereby locating housing at the downhill side of the open space areas.

The Quail Valley Project prioritizes safety compliance, adhering to health and safety regulations from the City of Palmdale and the LA Fire Department. A project-specific Fire Protection Plan will analyze and provide recommendations for establishing Firesafe Zones. Though specific elements of the program are to be determined in coordination with the City and with LA County Fire Department based on site specific conditions. It is anticipated that a three-tiered Fuel Modification Program (with Zone A: near house conditions being the most fire resistive zone, followed by Zone B: Wet zone; then Zone C: brush modification zone) could be one method of achievement with a 200-foot overall buffer zone, which is not unusual. Private lot owners are responsible for maintaining established buffers, as outlined in the Homeowners Association CC&R's, while Fuel Modification areas outside private lots will be maintained by the HOA, subject to City and County enforcement.

Project Goals and Objectives

The following are the primary Project Objectives:

- To build a residential community in compliance with City of Palmdale General Plan goals and policies and City of Palmdale Municipal Code design and safety requirements.
- To provide housing opportunities that will expand and enhance the City of Palmdale's housing stock and help fulfill the City's need to meet its regional housing goals.
- To make efficient use of undeveloped property zoned for residential use in the Palmdale area by providing additional and varied housing opportunities for new residents.
- To maintain the integrity of the nearby single-family residential neighborhoods through quality contemporary design, appropriate structural setbacks, architectural treatments, grading techniques, and building color palette.
- To provide extensive open space and recreational opportunities on-site that exceeds the City of Palmdale's Park and Open Space requirement.
- To encourage walking and bicycling by incorporating comprehensive trails on-site with direct access to the Los Angeles County Regional Trail system and future trails within the City of Palmdale.
- To minimize the impact to the existing environment and natural landforms to the maximum extent feasible.
- To preserve hillsides and mountain vistas pursuant to the City of Palmdale's Hillside Management Ordinance.
- To design and build a Project that respects the natural biotic communities on the Project site.
- To build a Project that respects and sustains the rich aesthetic beauty of the Project site and Project site vicinity.
- To build a Project that contributes to the City of Palmdale's tax revenue.

3.0 Environmental Setting

3.1 INTRODUCTION

In accordance with California Environmental Quality Act (CEQA) Guidelines Section 15125, this section of the EIR provides a description of overall existing physical environmental conditions on the Project site and in the Project vicinity from a local and regional perspective at the time the Notice of Preparation was published. Specific existing conditions also are discussed within each individual section.

Each sub-section in Section 4.0 of the EIR includes a discussion of existing conditions and an assessment of potential impacts of the proposed Project. In addition, each sub-section includes a discussion of cumulative impacts associated with the proposed Project. The cumulative impacts discussion in each sub-section is based on the environmental impacts of the proposed Project combined with the related environmental impacts of projects planned in the Project vicinity.

3.2 ENVIRONMENTAL SETTING

3.2.1 PROJECT LOCATION AND SURROUNDING LAND USES/DEVELOPMENT

The approximately 878.1-acre Quail Valley Project site is located on the south side of Avenue S, approximately 1.2 miles west of California State Route 14 (SR-14). The location of the Project site is depicted in **Exhibits 3-1 (Regional Location Graphic)** and **3-2 (Project Location Map)**. The Project site is not contiguous with the City of Palmdale's corporate boundary although the City owns Avenue S, which is directly adjacent to the Project site. As part of the proposed Project the entire Project site and adjacent parcels to the north, south, east and west of the Project site are proposed to be annexed in to the city, consistent with the City Sphere of Influence boundary. The inclusion of areas outside of the Project boundary (including the Falcon Glen project currently in process), establishes a block of area that is contiguous to the City of Palmdale's corporate boundary. The proposed annexation boundary currently includes 211 assessor parcels (53 parcels within the Project site and 158 additional parcels) that occupy a total approximately 1,310 acres. **Exhibit 2-3 (Annexation Boundary)** depicts the proposed Annexation Boundary. The specific boundary of the area and the acres annexed may vary from that shown on **Exhibit 2-3**, based on the final determination by LAFCO and other jurisdictional agencies.

The Project site is bordered by existing single-family residential and vacant land uses to the north, northwest and east, and vacant land to the south and west. Adjacent properties are zoned as indicated in the following **Table 3-1 (Adjacent Property Zoning)**.

Proposed Annexation

The Project site is not contiguous with the City of Palmdale's corporate boundary although the City owns Avenue S, which is directly adjacent to the Project site. The City of Palmdale is proposing to annex the entire Project site and adjacent surrounding parcels, all within the City's Sphere of Influence boundary. The inclusion of areas outside of the Project boundary (including the Falcon Glen project currently in

process), establishes a block of area that is contiguous to the City of Palmdale’s corporate boundary. The proposed annexation boundary currently includes 211 assessor parcels (53 parcels within the Project site and 158 additional parcels within unincorporated LA County) that occupy a total of approximately 1,310 acres.

Exhibit 2-3 (Annexation Boundary) depicts the proposed Annexation Boundary which includes not only Falcon Glen, a project in process with the City of Palmdale, but also other parcels bordering and near to the Quail Valley Project site. Non-Quail Valley parcels within the annexation area include vacant land and parcels with existing homes.

Exhibits 2-3A through 2-3D depict several potential annexation area boundary alternatives that LAFCO may consider in its deliberation about determination of the final Annexation area boundary, which mainly affect the northwest area bounding the existing City of Palmdale boundary and Project site boundary. **Exhibit 1-5 (Annexation Boundary)** in the Planned Development document and **Exhibit 2-3 (Annexation Boundary)** in this environmental impact report depict an Annexation area briefly analyzed in topical areas most relevant to LAFCO in this environmental impact report. A reduction in the Annexation area arising from LAFCO’s final decision would necessarily result in fewer, or less substantial environmental impacts.

The annexation area includes the approximate 162.45-acre Falcon Glen project site, which is located in unincorporated Los Angeles County northerly of the Quail Valley Project site, across Avenue S. The Falcon Glen Assessor’s Parcel Numbers are 3004-014-001, 004, 005, 008, 009, 012, 018, and 3004-014-023 through 031. The City has established pre-zoning for the Falcon Glen project site, as depicted on the City Zoning Map (June 29, 2023). The City also has established a General Plan Land Use designation and a pre-zoning designation of Single Family Residential 3 (SFR 3) for Falcon Glen. The zoning designation is intended for detached single-family subdivisions containing the City’s standard 7,000 square foot minimum lot size, though other lot configurations are possible under the City’s zoning code. These designations would allow a maximum 975 dwelling units for Falcon Glen. This number of dwelling units would yield approximately 3,510 new residents. The Falcon Glen project area is currently vacant land.

Table 3-1 – Adjacent Property Zoning/Existing Land Use(s)		
Direction	Zoning	Existing Land Use
North/Northwest	PZ-LDR (Single-Family Residential; 1-acre minimum lot size); PZ-SFR3 (across Avenue S to the north); SP-2 (Anaverde Nuevo Specific Plan) to the northwest	Single Family Residential Vacant Land
South	LDR (Low Density Residential; up to 1 dwelling unit/acre)	Vacant Land
East	LDR (Low Density Residential; up to 1 dwelling unit/acre)	Single Family Residences Vacant Land
West	LDR (Low Density Residential; up to 1 dwelling unit/acre)	Single Family Residences Vacant Land

3.3 PLANNING CONTEXT

3.3.1 CITY OF PALMDALE GENERAL PLAN/ZONING

The entire property is contained within the Sphere of Influence of the City of Palmdale and has existing General Plan and pre-zoning designations established by the City. The current City of Palmdale pre-annexation General Plan Land Use designation for the approximately 878.1-acre Project site is SFR1 (Single Family Residential – 0-2 dwelling units per acre), with the exception of a small area in the northeast portion of the Project site, east of Tovey Avenue between Avenue S and Sierra Ancha Drive and all of Area B, which carries a pre-annexation General Plan designation of LDR (Low Density Residential – 0-1 dwelling unit per acre). The City pre-annexation zoning designation for the majority of the Project site is SFR1; zoning for the small portion in the northeast Project site and Area B is LDR. Reference Exhibit 2-7 (Existing Land Use and Zoning), which depicts these designations. Reference Exhibits 2-6 (Proposed Land Use and Zoning) and 2-7 (Existing Land Use and Zoning). With the existing Project land uses and zoning designations and the incorporation of the Planned Development and City Hillside Management Ordinance, the overall project will be consistent with the current Land Use and Zoning.

3.3.2 SOUTHERN CALIFORNIA ASSOCIATION OF GOVERNMENTS – CONNECT SOCAL

The Southern California Association of Governments (SCAG) is the largest metropolitan planning organization in the nation. SCAG is responsible for developing long-range transportation plans and a sustainability strategy for this large region. The primary planning path for this task is Connect SoCal - - the 2020-2045 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS). Connect SoCal charts a path toward a more mobile, sustainable, and prosperous region by making key connection between transportation networks, between planning strategies, and between the people whose collaboration can make plans a reality. Because SCAG does not directly implement or construct projects, strategies provided in Connect SoCal materialize only in collaboration with local, county, State, Federal and private partners. Connect SoCal allows public agencies who implement transportation projects to do so in a coordinated manner, while qualifying for Federal and State funding. The plan strives to achieve broader regional objectives, such as preservation of natural lands, improvement of public health, increased roadway safety, support for the region's vital goods movement industries, and more efficient use of resources. Connect SoCal is supported by a combination of transportation and land use strategies that outline how the region can achieve California's greenhouse gas emission reduction goals and Federal Clean Air Act requirements.

Important laws that guide Connect SoCal include the following:

- ***Developing a Regional Transportation Plan (RTP)*** – Federal law requires SCAG to prepare and update a long-range RTP (23 U.S.C. Section 134 et seq.). The RTP must include, among other things, the following: identification of transportation facilities such as major roadways, transit, intermodal facilities and connectors that function as an integrated metropolitan system over at least a 20-year forecast period; a financial plan that demonstrates how the RTP can be implemented with “reasonably available” resources and additional financial approaches; strategies to improve existing facilities and relieve vehicular congestion and maximize safety and mobility of people and goods; and, environmental mitigation activities.

- ***Keeping up with Clean Air Act Requirements*** – Most areas within the SCAG region have been designated as nonattainment or maintenance areas for one or more transportation-related criteria pollutants. The Federal Clean Air Act requires SCAG’s 2020 RTP/SCS to meet all Federal transportation conformity requirements, including regional emissions analysis, financial constraint, timely implementation of transportation control measures, and interagency consultation and public involvement (42 U.S.C. Section 7401 et seq.).
- ***Monitoring System Performance*** – SCAG has been using quantitative performance measures to evaluate how well the RTP may achieve regional goals established in Connect SoCal.
- ***Developing a Sustainable Communities Strategy*** – California State law specifies that “The plan shall be action-oriented and pragmatic, considering both the short-term and long-term future” (Government Code Section 6509(a)). California Senate Bill 375 also requires the RTP include a Sustainable Communities Strategy that outlines growth strategies for land use and transportation and help reduce the State’s greenhouse gas emissions from cars and light duty trucks.
- ***Hitting Specific Targets for Greenhouse Gas Reduction*** – The California Air Resources Board has established greenhouse gas reduction targets for the SCAG region at eight percent below 2005 per capita emissions levels by 2020 and 19 percent below 2005 per capita emission levels by 2035.

Connect SoCal’s “Core Vision” center on maintaining and better managing the existing transportation network for moving people and goods, while expanding mobility choices by locating housing, jobs, and transit closer together and increasing investment in transit and complete streets.

Goals and Guiding Principles

Connect SoCal goals are grouped into four categories: economy; mobility; environment; and, healthy/complete communities. Connect SoCal establishes goals related to housing, transportation technologies, equity, and resilience to adequately reflect the increasing importance of these topics in the region. Where possible, goals have been developed to link to potential performance measures and targets. Federal policy also requires SCAG to establish performance measures and targets in Connect SoCal. As required under MAP-21/FAST Act, in 2016 and 2017 the Federal Highway Administration (FHWA) issued national performance measures and guidelines for use in establishing Statewide and regional performance targets.

Connect SoCal Goals

1. Encourage regional economic prosperity and global competitiveness
2. Improve mobility, accessibility, reliability, and travel safety for people and goods
3. Enhance the preservation, security, and resilience of the regional transportation system
4. Increase person and goods movement and travel choices within the transportation system
5. Support greenhouse gas emissions and improve air quality
6. Support healthy and equitable communities
7. Adapt to a changing climate and support an integrated regional development pattern and transportation network

8. Leverage new transportation technologies and data-driven solutions that result in more efficient travel
9. Encourage development of diverse housing types in areas that are supported by multiple transportation options
10. Promote conservation of natural and agricultural lands and restoration of habitats

Connect SoCal Guiding Principles

1. Base transportation investments on adopted regional performance indicators and MAP-21/FAST Act regional targets
2. Place high priority for transportation funding in the region on projects and programs that improve mobility, accessibility, reliability, and safety, and that preserve the existing transportation system
3. Assure that land use and growth strategies recognize local input, promote sustainable transportation options, and support equitable and adaptable communities
4. Encourage RTP/SCS investments and strategies that collectively result in reduced non-recurrent congestion and demand for single occupancy vehicle use, by leveraging new transportation technologies and expanding travel choices
5. Encourage transportation investments that will result in improved air quality and public health, and reduced greenhouse gas emissions
6. Monitor progress on all aspects of the Plan, including the timely implementation of projects, programs, and strategies
7. Regionally, transportation investments should reflect best-known science regarding climate change vulnerability, in order to design for long term resilience

3.4 EXISTING SITE CONDITIONS

Existing Project site conditions/environmental setting for each environmental topic area are discussed within each related topic section of analysis.

Area A is the northern property that occupies approximately 670 acres and encompasses gently sloping valley surrounded on three sides by natural hillsides. Area A comprises the development portion of the Project and encompasses the Project's residential subdivision map (Tentative Tract Map 65813). The central and northern portions of Area A consist of lowland foothills dominated by big sagebrush scrub, rabbitbrush scrub, Mojave mixed woody scrub, non-native vegetation and disturbed/developed areas. Area B is the adjacent southern property that occupies approximately 210 acres and contains a major portion of the natural grade that forms the backdrop of Palmdale's southern skyline. Area B is situated in higher elevations of foothills that include a portion of the ridgeline of the Sierra Pelona Mountains and that comprises a major portion of the natural grade that forms a backdrop to the southern skyline of the City. **Exhibit 2-2 (Project Location Map)** depicts Area A and Area B. Area B is not proposed for development as part of the Project and is anticipated to remain as open space in perpetuity.

The Project site currently is vacant and crossed by a series of dirt roadways. In July, 2005 a wildfire burned approximately 375 acres in the central and southern portions of the Project site, which removed a significant amount of native vegetation on that portion of the property. Much of this vegetation has re-established. A number of significant biological resources are located on the Project site, including Joshua Trees, California Juniper, Peirson's Morning Glory, and Short-Joint Beavertail Cactus. One archaeological site that includes

a rock art panel near the center of Area A will be preserved in place within a Homeowners Association-owned common area open space lot. Some examples of the sensitive biological species are located within the proposed development portion of the Project site. These include an area of Joshua Trees in the central portion of Area A and various locations with concentrations of Peirson's Morning Glory. The central portion of Area A, which generally is westerly of Tovey Avenue, is proposed to contain single-family residential units, one-acre rural lots, and an undisturbed area.

The Project site contains numerous easements. The majority of the easements involve power poles, pole lines and utility easements and associated ingress and egress rights for public utilities. Easements affecting the northwest edge of the Project site near Avenue S include the following: an easement related to the improvement of Avenue S (the Anaverde easement); a Southern California Gas Company easement; a City of Los Angeles easement; a County of Los Angeles easement; and, a Southern California Edison easement. A segment of Avenue S currently is constructed over a portion of the Project site that will be dedicated to the City of Palmdale together with other required expansions of the adjacent public right-of-way for Avenue S. Various easements that extend off the Project site include the following: City of Los Angeles easements; Southern California Edison easements; and, Sagebrush easements. Refer to **Exhibit 2-3 (Annexation Boundary)**, which depicts the easements on the Project site.

3.5 ASSUMPTIONS REGARDING CUMULATIVE IMPACTS

CEQA Guidelines Section 15120 states that “cumulatively considerable” impacts must be addressed in an EIR. Cumulatively considerable impacts are two or more individual impacts that, when considered together, compound individual project impacts. *CEQA Guidelines* further state that cumulatively considerable impacts need not be discussed in as great a level of detail as that necessary for a project alone. Cumulative impacts represent the change caused by the incremental impact of a project when added to other proposed or committed projects in the vicinity. *CEQA Guidelines* Section 15130(b)(1) states that the information used in an analysis of cumulative impacts should originate from one of the following two sources:

- A list of past, present and probable future projects producing related cumulative impacts, including, if necessary, those projects outside the control of the Lead Agency; or,
- A summary of projections contained in an adopted general plan or related planning document designed to evaluate regional or area-wide conditions

The cumulative impact analysis contained in this Draft EIR uses the former method, though Transportation assumes background growth in its analysis.

The following past, present, and probable future projects approved by the City of Palmdale and/or the County of Los Angeles are located generally within one mile of the Project site:

- Anaverde Nuevo Specific Plan
- 15th West, Tract 54328, located northerly of the Project site
- Residential Homes east of Project site

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4.0 Environmental Impacts

4.1 Aesthetics

The information in this section was derived from the following: City of Palmdale General Plan, “Palmdale 2045”; City of Palmdale Municipal Code (Chapter 17.100 Hillside Management); Antelope Valley Area Plan; County of Los Angeles General Plan; and the Quail Valley Planned Development Project plans.

4.1.1 ENVIRONMENTAL SETTING

Existing Conditions

Regional Visual Setting

The proposed Project site is situated on the south side of Avenue S, approximately one-half mile west of State Route 14 (SR-14) in the foothills of the Sierra Pelona Mountains. The Project site occupies 878.1 acres immediately south of the City of Palmdale and within the City of Palmdale Sphere of Influence within unincorporated Los Angeles County. The City of Palmdale is located within Antelope Valley and is bordered by the Sierra Pelona Mountain range to the west, the Tehachapi Mountains to the northwest, and the Mojave Desert to the northeast. Elevations in the City of Palmdale generally slope downward from the foothills of the mountains in the southwest toward the Mojave Desert in the northeast.

The Lamont Odett Vista Point is visible upon entering Palmdale from the south via SR-14. This Vista Point provides a view of Lake Palmdale, the California Aqueduct, and the City of Palmdale with the Sierra Pelona Mountain range to the west, the Tehachapi Mountains to the northwest, and the Mojave Desert to the north and northeast. Limited views of the upper elevations of the southerly portion of the Project are distantly visible from portions of the SR-14 freeway. The upper portions of the southerly open space are also visible from various locations throughout the valley (Area B). The development area is visible from Avenue S and the areas proximate to the Project. An area visual analysis is provided in the Appendices of the Project Planned Development Document.

Project Vicinity and Project Site Visual Setting

The majority of the surrounding properties are undeveloped, with the exception of a small group of single-family residences along the northeastern and nearest edge of the Project site at Tovey Avenue and partially developed parcels along the easterly edges of the Project site. The Anaverde Nuevo Specific Plan development area is located approximately one-half mile west along Avenue S, northwest of the Project site. Refer to **Exhibit 2-1 (Regional Location Graphic)** and **Exhibit 2-4 (Planned Development Plan)**, which depicts the Project site and surrounding properties.

One archaeological site that includes a rock art panel near the center of Area A will be preserved in place within a Homeowners Association-owned open space lot.

The Project site contains numerous easements. The majority of the easements involve power poles, pole lines and utility easements and associated ingress and egress rights for public utilities. Easements located at the northwest edge of the Project site near Avenue S include the following: an easement related to the

Section 4.1

improvement of Avenue S (the Anaverde easement); a Southern California Gas Company easement; a City of Los Angeles easement; a County of Los Angeles easement; and, a Southern California Edison easement. A segment of Avenue S is currently constructed over a portion of the Project site that will be dedicated to the City of Palmdale together with other required expansions of the adjacent public right-of-way for Avenue S. Various easements that extend off the Project site include the following: City of Los Angeles easements; Southern California Edison easements; and, Sagebrush easements. Refer to **Exhibit 2-4 (Planned Development Plan)**, which depicts the existing easements on the Project site.

4.1.2 REGULATORY FRAMEWORK

Local Regulations

City of Palmdale General Plan (Palmdale 2045)

Palmdale 2045 has as its primary goal to provide City decision-makers, City staff, and the Palmdale community with a General Plan that aligns with community values and is responsive to market opportunities. Palmdale 2045 provides the City with a road map to identify strategies for enhancing community character and quality of life, expanding economic development opportunities, managing growth, addressing impacts of climate change, and improving outcomes for public health and sustainability. In so doing, Palmdale 2045 complies with California Government Code (Sections 65300-65303.4) that provides a “long- term comprehensive, integrated, internally consistent and compatible statement” of goals and policies that reflect local conditions and the community vision. California law requires each General Plan address nine subject areas, normally termed “elements.”

A General Plan Consistency Assessment of the following Palmdale 2045 Goals and Policies relevant to the Quail Valley Project Aesthetic analysis is contained in Appendix A of this EIR.

Land Use and Community Design Element

- | | |
|------------------------|---|
| Goal LUD-4: | High-quality architecture and site design in the renovation and construction of all buildings. |
| Policy LUD-4.1: | Quality Construction. Use simple, urban building forms made with permanent materials with high-quality detailing that stands the test of time. |
| Policy LUD-2: | Massing Techniques. Use building organization and massing to derive scale and articulation rather than surface ornamentation. |
| Policy LUD-4.3: | Long-Lasting Building Materials. Convey façade articulation through the strength, depth, and permanence of building materials. Thinner cladding materials, such as stucco, masonry veneers, and wood or simulated wood, may be used when finished to appear as durable and authentic as the materials they simulate. |
| Policy LUD-4.8: | Environmental Design. Design sites and buildings adjacent to natural areas with transparent design elements. Employ bird-safe design near habitat areas or migratory routes. |
| Policy LUD-4.9: | Public Streetscapes. Create pedestrian-oriented streetscapes by establishing |

unified street tree planting, sidewalk dimensions and maintenance, pedestrian amenities, and high-quality building frontages in all new development.

- Goal LUD-5:** **All new major development in the city is designed to support high-quality neighborhoods.**
- Policy LUD-5.1:** **New Complete Neighborhoods.** Require new development to provide multiple amenities, a beautiful public realm, and be consistent with the City’s vision for complete neighborhoods.
- Policy LUD-5.6:** **Character of New Housing.** Provide a diversity of architectural styles; avoid entire blocks or neighborhoods with identical housing styles.
- Policy LUD-5.7:** **Natural Topography.** To the greatest extent feasible, preserve natural topographic features during the planning and development process. Utilize physical advantages of the site to minimize visual impacts.
- Goal LUD-6:** **Pedestrian-oriented, human-scale and well-landscaped streets and civic spaces.**
- Policy LUD-6.2:** **Primary Entries.** Require new homes to provide a primary entryway and windows facing the street.
- Policy LUD-21.3:** **Respecting Natural Ridges.** Avoid grading or siting of dwelling units on the north facing side of Ritter Ridge or other major ridgelines.
- Policy LUD-24.4:** **Avenue S and SR-14.** Require that development near the intersection of Avenue S and SR-14 is complementary to Lake Palmdale, surrounding hillside, and mountain views by minimizing building heights and viewshed impacts; and is consistent with sound water quality management practices by providing a minimum 100-foot setback from the historical high-water mark of Lake Palmdale and meeting other relevant environmental standards.

Circulation and Mobility Element

- Policy CM-4.6:** **Lighting.** Provide human scale lighting along pedestrian thoroughfares, in commercial districts, on trails, and at transit stops.

Equitable and Healthy Communities Element

- Policy EHC-11.4:** **Streetscape Enhancements.** Enhance existing streetscapes to include greater sidewalk coverage, walkway connectivity, street trees and shade, street lighting, street crossing safety features, traffic calming measures, transit shelters, and other design elements, especially in disadvantaged communities.
- Policy EHC-16.4:** **Public Realm Lighting.** Improve lighting and nighttime security across all city neighborhoods to prevent crime and increase safety.

Parks, Recreation and Open Space Element

- Goal PR-6:** **Provide a network of open space areas to provide for passive and active recreation opportunities, enhance the integrity of biological systems, and provide visual relief from the developed portions of the city.**
- Policy PR-6.1:** **Open Space Network.** Develop an open space network through preservation of corridors along fault zones, natural drainage courses and in hillside areas to connect with the large areas of open space designated on the General Plan Land Use Map.
- Policy PR-6.2:** **Acquire Natural Open Spaces.** Work with private property owners, conservation agencies, and the County of Los Angeles to expand and acquire natural open spaces and hillsides on the periphery of the city.
- Goal PR-8:** **Preserve significant natural and constructed open space areas that give the city its distinct form and identity.**
- Policy PR-8.2:** **Varied Open Space Features.** Utilize a variety of features, including city entry points, landscaped arterial roadways, bikeways, equestrian paths, hiking trails, and park sites, to create an open space network.
- Policy PR-8.4:** **Open Space Preservation Through Hillside Management Ordinance.** Implement the standards adopted under the City’s Hillside Management Ordinance for new development including clustering and density transfer of housing units, in order to maintain areas of scenic and other open space within hillside areas.
- Policy PR-8.5:** **Location and Retain Open Spaces.** Utilize the City’s discretionary land use approval process to locate and retain areas for use as open space through dedication or other legal means. Develop criteria and guidelines to identify areas that should be protected.
- Policy PR-8.8:** **Work to Preserve Open Space.** Cooperate with private and public entities whose goals are to preserve natural and constructed open space.

Conservation Element

- Goal CON-1:** **Protect Significant Ecological Areas in and around the City, including, but not limited to, sensitive flora and fauna habitat areas.**
- Policy CON-1.2:** **Joshua and Juniper Trees.** Continue enforcing the City’s Native Vegetation Ordinance to protect western Joshua trees and Juniper trees.
- Goal CON-2:** **Preserve designated natural hillsides and ridgelines in the Planning Area, to maintain the aesthetic character of the Antelope Valley.**
- Policy CON-2.1:** **Hillside Land Management.** Establish a systematic approach to the management of land uses and development in hillside areas.

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- Policy CON-2.2:** **Natural Ridgelines.** Retain the integrity of the natural ridgelines of Ritter Ridge, Portal Ridge, Verde Ridge, the Ana Verde Hills, the Sierra Pelona Mountains, and the lower foothills of the San Gabriel Mountains.
- Policy CON-2.3:** **Density Transfers.** Encourage density transfers where appropriate so that the density of development respects and is reflective of the natural terrain.
- Policy CON-2.4:** **Development in Suitable Locations.** Facilitate development in more suitable locations while retaining significant natural slopes and areas of environmental sensitivity as natural open space.
- Goal CON-9:** **Promote Community Design that Reflects Palmdale’s History and Preserves Palmdale’s Cultural Resources.**
- Policy CON-9.3:** **Locally Appropriate Landscape Design.** Preserve the natural heritage of the region through landscape design by ensuring the local stock of native trees and vegetation is replenished and protected.

Sustainability, Climate Action, and Resilience Element

- Policy SCR-7.1:** **Tree Planting in Public Spaces.** Plant additional trees on streets, parks, and other public spaces to sequester carbon, provide shade, contribute to stormwater management, provide habitat, and enhance community character.

Air Quality Element

- Policy AQ-2.3:** **Natural Contours.** Encourage developers to maintain natural contours to the greatest degree possible, to eliminate the need for extensive land clearing, blasting, ground excavation, grading and cut and fill operations.

4.1.3 *THRESHOLDS FOR DETERMINING SIGNIFICANCE*

Appendix G of the CEQA Guidelines contains the Initial Study Environmental Checklist form used during preparation of the Initial Study. According to Appendix G, a project will normally have a significant adverse environmental impact on Aesthetics if it would:

- Threshold AES-1 Have a substantial adverse effect on a scenic vista**
- Threshold AES 2 Substantially damage scenic resources, including, but not limited to trees, rock outcroppings, and historic buildings within a state scenic highway**
- Threshold AES 3 In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings (Public views are those that are experienced from publicly accessible vantage points.) If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?**

Threshold AES 4 **Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area**

4.1.4 *ENVIRONMENTAL IMPACT*

Templeton Planning Group conducted a viewshed/line-of-sight study from two public view points of the Project development area and a visual analysis (contained in Appendix C of the Planned Development document). These sections identify visual conditions and resources of the proposed Project site as seen from a point along Avenue S adjacent to the Project site and from residences along Tovey Avenue. This was accomplished using a combination of methods that include identifying and analyzing prominent visual features on the Project site, and using computer-generated visual simulations and view sections.

Impact Analysis

Threshold AES-1 **Would the Project have a substantial adverse effect on a scenic vista?**

Less Than Significant Impact.

The proposed Project site is currently vacant and crossed by a series of dirt roadways. In July 2005, a wildfire burned approximately 375 acres in the central and southern portions of the Project site, which removed a significant amount of native vegetation on that portion of the property. Much of this vegetation has re-established. Due to topography differences, and existing development, the development component of the Project site is not visible from most areas beyond the immediate surrounding residential developments. Public views are available from a few locations to the north and northeast of the Project site, primarily of the upper open space areas. Distant views of the Project development area are available from limited locations along Avenue S, Tierra Subida Avenue, Barrel Springs Road, and SR-14 in the Project vicinity. Existing development and sloping topography screen views of the Project development area from other locations.

Project Development Area

The primary constraints to development on the Project site are hillside topography, natural drainages, biological and archaeological resources, and existing easements, as previously shown on **Exhibit 2-4 (Planned Development Plan)**. Taking these constraints into account, the Project site will be developed across one of two self-defined sub-areas of the entire property. Area A is the northern property that occupies approximately 670 acres and encompasses gently sloping valley surrounded on three sides by natural hillsides which will remain undeveloped. Area A also comprises the development portion of the Project and encompasses the Project's residential subdivision map (Tentative Tract Map 65813).

The central and northern portions of Area A consist of lowland foothills dominated by big sagebrush scrub, rabbitbrush scrub, grassland/Mojave mixed woody scrub vegetation and disturbed/developed areas. Area B is the adjoining southern property that occupies approximately 210 acres and contains a major portion of the natural grade that forms the backdrop of Palmdale's southern skyline. Area B is situated in higher elevations of foothills that includes a portion of the ridgeline of the Sierra Pelona Mountains and comprises a major portion of the natural grade that forms a backdrop to southern skyline of the City. Area B will be

kept in its entirety as undisturbed area protecting the southern viewshed of the City. Refer to previous **Exhibit 2-4 (Planned Development Plan)**, which depicts Area A and Area B.

Palmdale 2045 does not designate any of the following viewsheds as protected.

Viewshed from Avenue S

Avenue S fronts the entry to the Project site. Avenue S is proposed to have a 70-foot landscaped setback from its right-of-way to any structures. Avenue S is generally level across the frontage of the Project site and increases gradually in grade toward the northwest. Existing primary views of the Project site from Avenue S are of a flat sandy wash bisected with off-road vehicle tracks. The proposed Project's clustered development would be contained in the valley floor pocket within Area A and would not extend up the canyon sides of the valley or toward the ridgelines. The north/south running ridge on the southeastern portion of the Project site would also be preserved by the avoidance of grading the lower ridge and cresting the lower ridge with the few very large residential lots as depicted on **Exhibit 4.1-1 (Hillside Grading Plan)**. This protects the existing views on neighboring properties east of the Project site.

Viewshed from Proposed "A" Street Traffic Circle Facing East

A cross-sectional analysis was prepared for the Project to show the proposed grading from Avenue S. As shown on **Exhibit 4.1-2 (Visual Analysis North/South Avenue S Section)**, the view from a point along Avenue S is expressed in a 1,700-foot north-south cross section facing east, starting at Avenue S through the "A" Street traffic circle of proposed Project. As indicated on the Exhibit, the natural land form/existing grade depicted by the dotted line has an 80-foot vertical rise in 1,700 horizontal feet (4.7 percent grade). The proposed grade after Project build out is depicted in the Exhibit by a solid line and, as indicated, will be similar to the existing grade. The Project proposes a 70-foot open space buffer south of Avenue S to the private lot line of the first residential lot (Lot 24) at the "B" Street cul-de-sac. The Exhibit also identifies several open space locations within the Project. Views south of Avenue S are filtered by the 70-foot open space and by the rear yard of Lot 24, which rises up approximately 20 feet before a house becomes visible. The southern ridgelines that form the backstop of the Pelona Vista foothills will remain open space. As a result, although the open space views will be altered, the effect of the proposed Project development on scenic vistas of the ridgelines and scenic backdrop will be less than significant.

Viewshed from Recreational Trails

The Project site is part of the valley floor that is visible from recreational trails along the Sierra Pelona Mountain ridgeline and from the hillside at a higher elevation than the Project site. Project development will alter views of the Project site from these viewpoints by converting undeveloped land within Area A to residential development. Precluding development on the approximately 210-acre Area B and approximately 185 acres of Area A would equate to development on 55 percent of the 878.1-acre Project site. Therefore, Project development would minimize the area of developed land that would be visible from trails along the ridgeline and hillsides at higher elevations than the Area A development area.

Viewshed from Elizabeth Road

Elizabeth Road extends east and west two miles north of Avenue S at the Project site. Foreground hills and existing development block any view southward from Elizabeth Lake Road. The Project does not impact the Elizabeth Road viewshed.

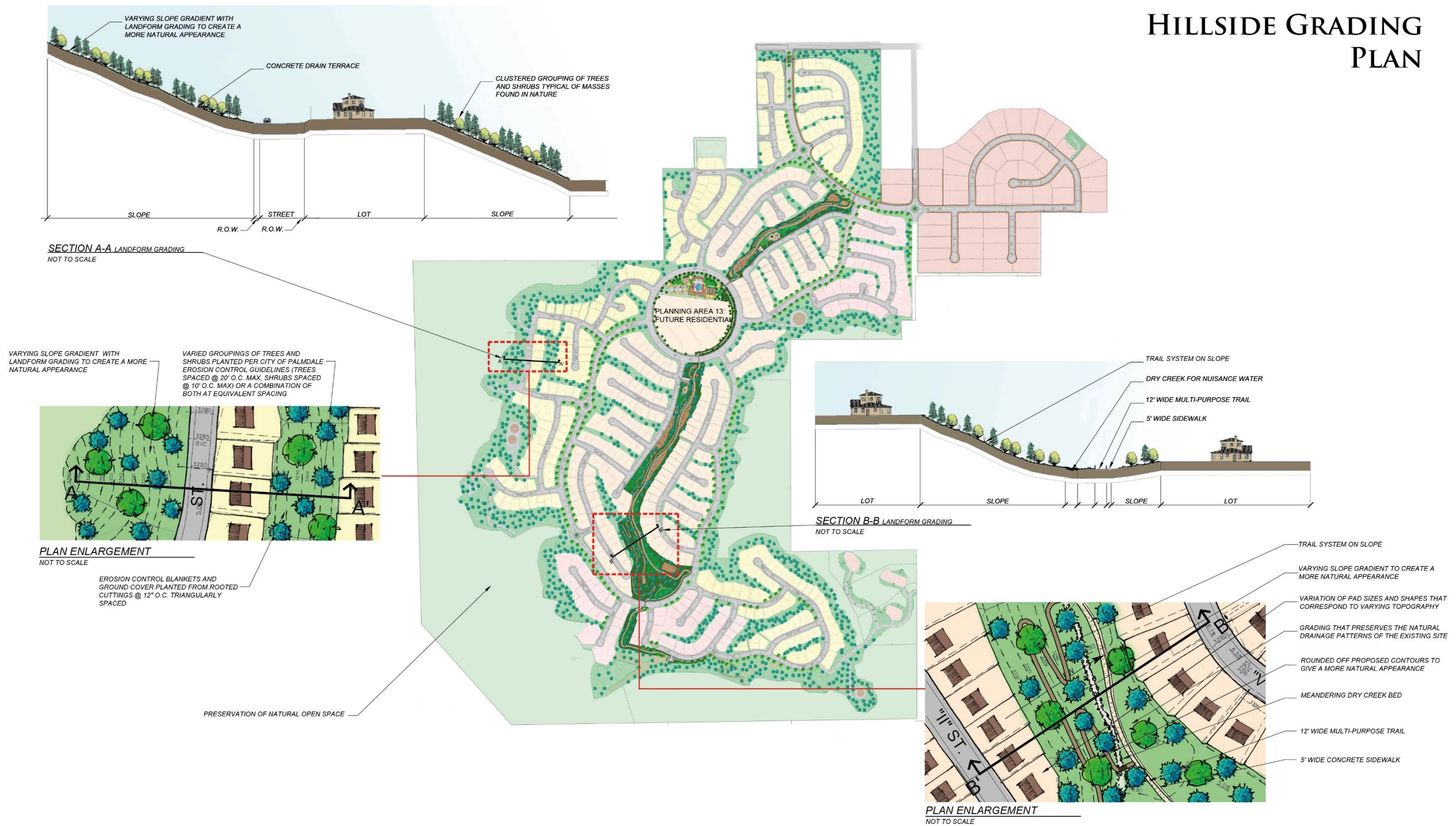
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Development on the LAFCO-approved non-Quail Valley properties proposed for annexation would require site-specific environmental analysis of potential impacts pertaining to CEQA-identified Aesthetics topics for analysis. The non-Quail Valley areas within the overall annexation boundary include vacant lots, lots with existing housing, and the proposed Falcon Glen project area. The development of 975 dwelling units (the maximum allowable under the City pre-zoning on the Falcon Glen project site) could result in impacts on Aesthetics in the Project and Annexation areas. As the Falcon Glen project is undergoing a separate approval process, the aesthetic impacts of that project will be addressed as part of that project review. The Falcon Glen property area is currently vacant land.

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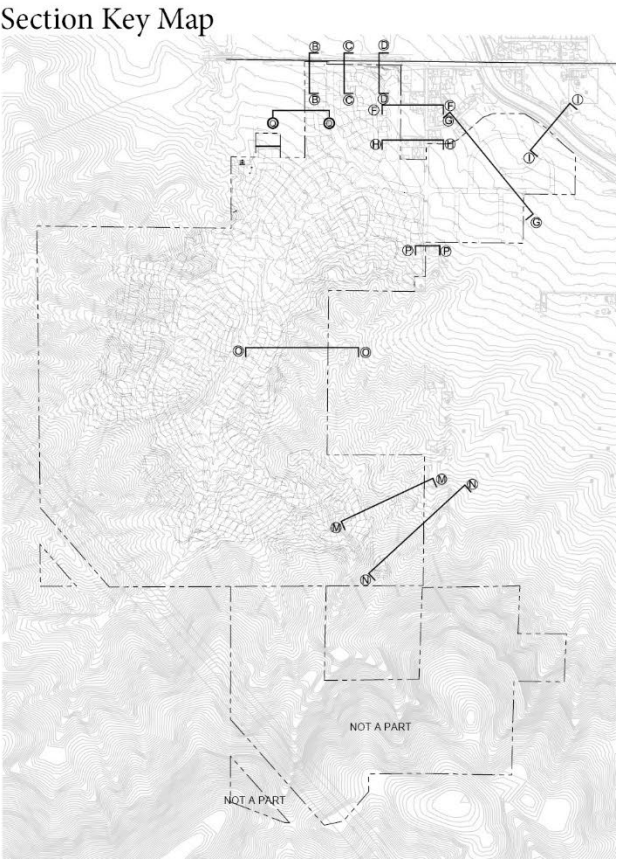
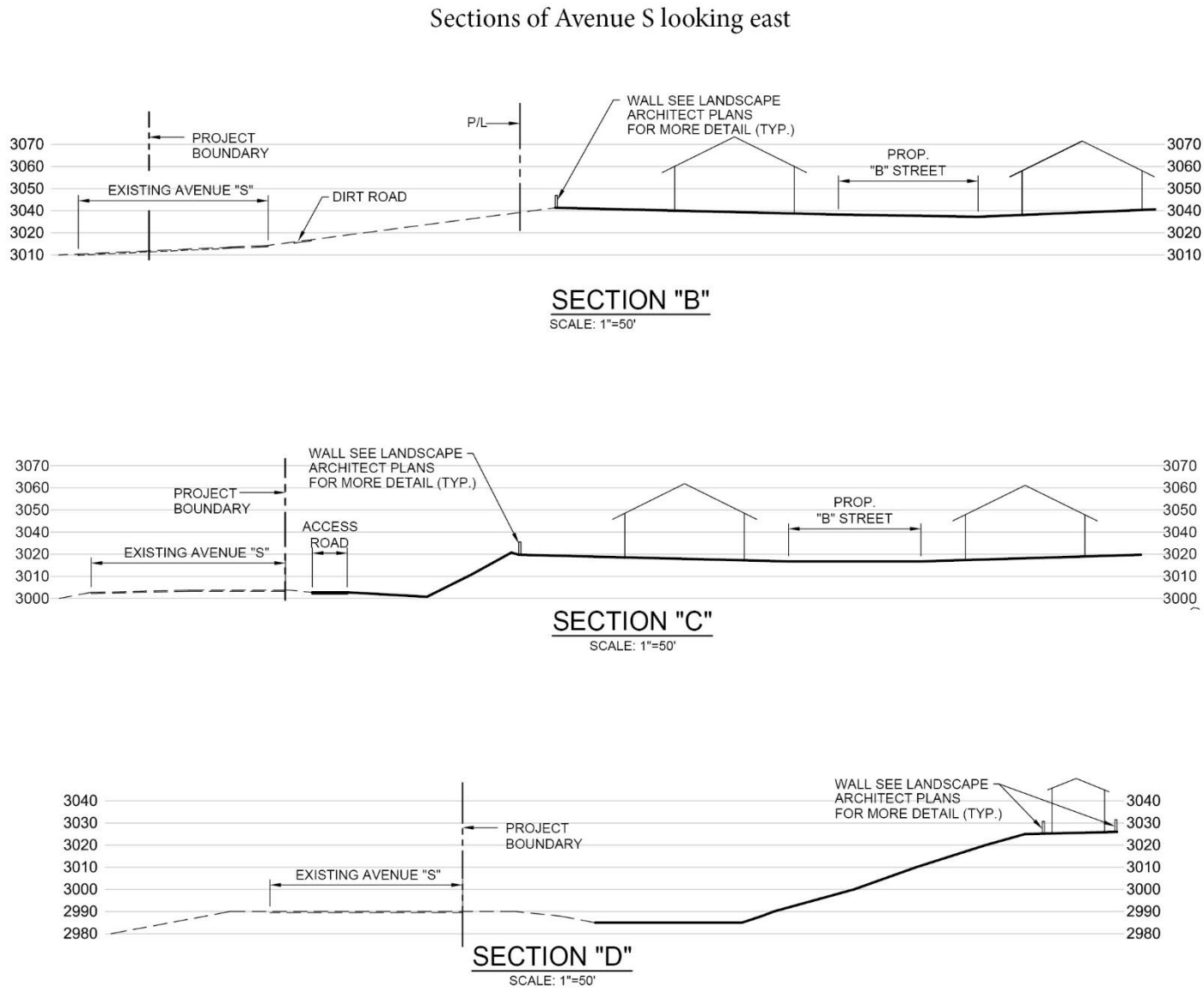
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EXHIBIT 4.1-1 – HILLSIDE GRADING PLAN



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EXHIBIT 4.1-2 – VISUAL ANALYSIS NORTH/SOUTH AVENUE S SECTION



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Viewshed from SR-14 at West Palmdale Boulevard

SR-14 south of Palmdale Boulevard is designated in the Antelope Valley Area Plan as a Priority Scenic Drive. The view southwest from SR-14 at West Palmdale Boulevard toward the Project site is blocked by a hill and by an 18-foot-tall sound wall and 35-foot-tall landscaping. This same condition continues southward along SR-14 until the Rayburn Road underpass, where there is no sound wall. Therefore, the Quail Valley Project does not impact the viewshed from SR-14 at West Palmdale Boulevard.

Viewshed from SR-14 at Rayburn Road and farther south to Avenue S

The proposed Project is located slightly less than two miles from the SR-14 /Rayburn Road view point. The view southwest from this intersection and at Avenue S and the SR-14 freeway is generally depicted on the Visual Analysis contained in **Appendix C** of the Planned Development Document. This analysis indicates the proposed Project would appear in the distance, if at all, as a thin line of development on the valley floor. Hillside/ridgeline views will not be scarred by residential development, but will remain as permanent open space. Continuing southward along SR-14, this condition continues a short distance until a small foreground ridge adjacent to the east side of the Project site just south of Avenue S becomes more prominent and blocks almost all views of the Project. Continuing farther southward along SR-14, the cut slopes of this highway fully obscure all views to the southwest and to the proposed Project. Therefore, the proposed Project does not impact the viewshed from SR-14 south of the Rayburn Road underpass.

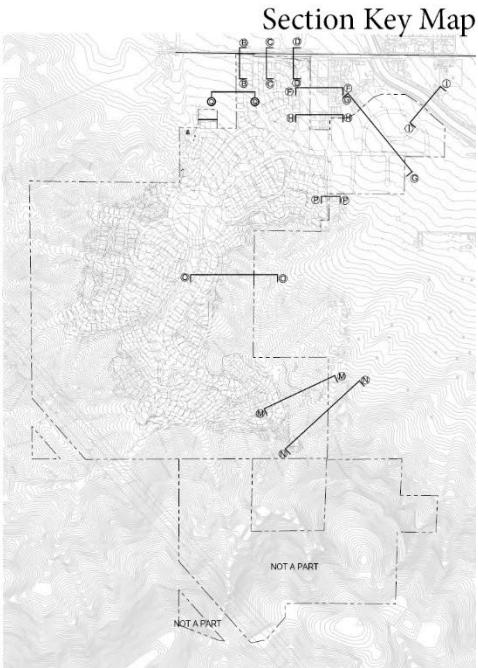
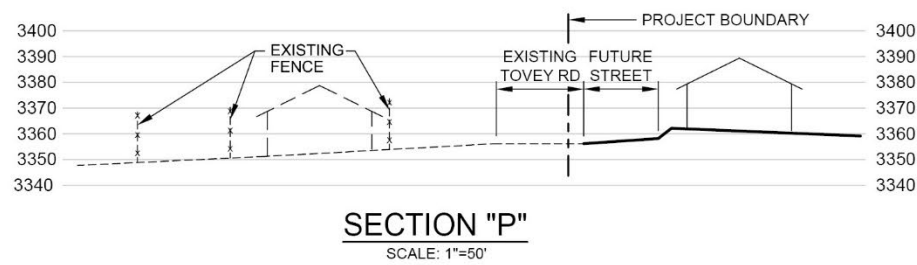
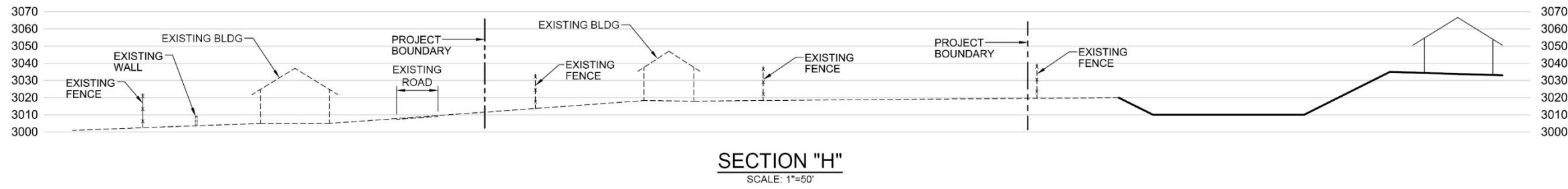
Viewshed from Tovey Avenue

Exhibit 4.1-3 (Visual Analysis East/West Tovey Avenue Section) includes a section view taken in the northeastern portion of the Project site facing east-west to depict the typical views seen from the existing residences along Tovey Avenue. These adjacent residential lots are typically 275 feet deep and 130 feet wide, approximately three-quarters of one acre in area. Only about one-half of the lots on the west side of Tovey Avenue currently contain residences. The exhibit also depicts a proposed drainage area adjacent to the proposed Project's large lots in Planning Area 1. This proposed drainage also serves as open space to separate future new residences from the half-developed residential subdivision. The closest Project residences to Tovey Avenue are approximately 450 feet west of Tovey Avenue and approximately 350 feet west of the nearest existing residence along Tovey Avenue. Also, the nearest Project residences in Planning Area 1 to Tovey Avenue will be developed on residential building pads at elevations approximately 30 feet higher than Tovey Avenue and from 10 to 20 feet higher than the existing grade. The southern ridgelines that form the backstop of the Pelona Vista foothills will remain open space. As a result, although the proximate views from Tovey Avenue will be altered, the effect of the proposed Project development on scenic vistas from Tovey Avenue will be less than significant.

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EXHIBIT 4.1-3 – VISUAL ANALYSIS EAST/WEST TOVEY AVENUE SECTION



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Threshold AES-2 Would the Project substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a State scenic highway?

Less Than Significant Impact.

The Biological Resources Habitat Assessment (discussed in detail in Section 4.4 – Biology) conducted for the Project indicates that western Joshua trees and scrub vegetation currently exist on the Project site. Extensive off-road vehicle use on the Project site has impacted soils and vegetation. Some juniper trees are located on higher slopes and the valley's west facing slope. From Avenue S, these slopes are more than 1,000 feet away and have limited visibility. Additionally, there are no substantial rock outcroppings or historic buildings within the proposed development area of Area A.

The proposed development area within Area A provides for clustering of residential neighborhoods in the lower valley area, using grading techniques that minimize visual impacts and avoids damaging scenic resources. The Project site's significant natural landforms will be preserved from disturbance. Landform preservation techniques will involve protection of primary ridgelines surrounding the proposed development area. The proposed conservation of Area B retains in perpetuity the significant natural ridgeline on the property that forms much of the view from the City to the northern portions of the Sierra Pelona Mountains.

The Project site does not include any heritage trees, rock outcroppings, or historic buildings that would be considered scenic resources. In addition, no roadways in the Project vicinity are designated State scenic highways. Therefore, Project development will not result in any impact on scenic resources, including but not limited to trees, rock outcroppings and historic buildings within a State scenic highway.

Threshold AES-3 Would the Project substantially degrade the existing visual character or quality of the site and its surroundings?

Less Than Significant Impact.

Project development and operation will alter the existing visual character of 55 percent of the 878.1-acre Project site, all of which would be in Area A. New residential buildings, roadways, Quail Valley Recreation Center, the Quail Valley Public Park, and landscaping would replace the existing natural habitat on the Project site. Much of the existing vegetation in the development area of Area A will be removed. Short-term Project development impacts to the existing visual character would be comprised of the presence of construction equipment, dirt stockpiles, pipes, construction fencing, and materials used for constructing the residential buildings and roadways. Since these are temporary in nature, the short-term change to the existing visual character of the Project site on a temporary basis would be less than significant. Due to the configuration and topography of the Project site and the location of various finger canyons and the large quantity of alluvial grading required, there will be several slopes that will exceed 30 feet in height. The larger slopes will be generally located upslope behind residences to minimize potential visual impacts. Varied slope gradients and contoured grading are designed to create a more natural configuration.

Project operation would comprise a long-term impact to the existing visual character of Area A of the Project site. Area A will be graded and residential building pads will be established. Although significant potential exists for development of residential lots with panoramic views of the Antelope Valley on the upper reaches of the 878.1-acre Project site, development is purposefully clustered in lower elevations on

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the Project site and heights of manufactured slopes have been minimized in the lower elevations of the Project site to ensure consistency with the City of Palmdale Hillside Management Ordinance. Grading respects and reflects the Project site's natural terrain and is designed to minimize visual impacts by providing for preservation of the Project site's significant natural landforms located in the Project site. Steeper slopes within Area A and the entirety of Area B will be retained as permanently undeveloped areas.

The landform preservation techniques of the proposed Project development involve protection of the primary ridgelines that surround the Project site. Grading that would occur within the edges of the valley utilize variations to slope gradients, contour, landform and daylight grading, and incorporation of selected landscape elements to minimize impacts on the natural terrain. The Project grading design is consistent with City of Palmdale grading standards and design objectives for hillside developments.

Project landscaping materials, techniques, and design elements will be compatible with the Project's comprehensive rural theme. Conservation of Area B will retain in perpetuity the natural ridgeline on the Project site that forms much of the view from the City of the northern reaches of the Sierra Pelona Mountains.

Grading techniques, landscaping design, clustering of residential units within Area A, and preservation of Area B will combine to result in a less than significant impact related to degradation of the existing visual character and quality of the Project site and its surroundings.

Threshold AES-4 Would the Project create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?

Less Than Significant Impact with Mitigation Incorporated.

During Project construction, short-term lighting used primarily for security purposes would be introduced to the project site. Project operation would result in the introduction of new permanent sources of light to the development area within Area A. These long-term light sources would include interior and exterior building lighting, street lighting, lights from vehicular traffic, and open space night security lighting. In addition, the new residences within Area A would include surfaces such as windows that reflect sunlight and thereby may cause glare throughout Area A. The new light and glare resulting from the residential development and the QV HOA Recreation Facility within Area A would be apparent to residents and visitors in the surrounding area and would affect night-sky illumination. However, implementation of **Mitigation Measures MM-AES-1, MM-AES-2, and MM-AES-3** will reduce the potentially significant impact due to light and glare to a less than significant level.

4.1.5 CUMULATIVE IMPACTS

California State CEQA Guidelines Section 15355 defines "cumulative impacts" as referencing "...two or more individual effects, which when considered together, are considerable or which compound or increase other environmental impacts." This Section further indicates that the individual effects "...may be changes resulting from a single project or a number of separate projects." Also, this Section states that "the cumulative impact from several projects is the change in the environment which results from the incremental impact of the project when added to other closely related past, present, and reasonably foreseeable probable future projects. Cumulative impacts can result from individually minor but collectively significant projects taking place over a period of time."

As discussed above, Project development combined with the existing residences to the northwest, east and southeast of the Project site have no negative visual impacts to the Sierra Pelona Mountain ridgelines or to the views of the surrounding hillsides from adjacent and nearby scenic highways or scenic corridors. However, adding 730 residential units as part of the 878.1-acre Project to the existing residences in the Project vicinity would cumulatively be a potentially significant impact resulting from Project-added street and security lighting and from the vehicles or the future residents and typical residential service vehicles. Compliance with the City of Palmdale's regulations pertaining to prohibiting a project's light and glare from impacting neighboring residential properties (such as those to the north, northwest, east, and southeast of the Project site) will ensure the Project's contribution to cumulative impacts from light and glare will be less than significant. The cumulative impact related to views to the Project site from neighboring public roadways would be less than significant in the area because, as demonstrated in the Visual Analysis contained in the Appendix C to the Planned Development Document, the scenic views to the Sierra Pelona Mountains and higher elevations within the Project vicinity would be preserved.

Development on the LAFCO-approved non-Quail Valley properties proposed for annexation would require site-specific environmental analysis of potential cumulative impacts to CEQA-identified Aesthetics topics for analysis. Residential development on the Falcon Glen site could result in the construction of 975 single-family dwelling units and 3,510 new residents. The Falcon Glen project is under a separate project approval process, with a separate required impact analysis. The Falcon Glen property area is currently vacant land. Annexation of vacant land would not cause new or increased cumulative aesthetic impacts. Similarly, the annexation of areas of existing nearby homes would not alter or increase cumulative aesthetic impacts compared to existing conditions.

LEVEL OF SIGNIFICANCE BEFORE MITIGATION

Less Than Significant Impact: Threshold AES-1, AES-2, and AES-3

The proposed Project grading is designed to generally mimic the existing slope patterns of Area A. A large portion of Area A will not be developed or graded and the entire Area B will remain undeveloped in perpetuity. The Area A development area will be sufficiently distant from Avenue S by approximately 70 feet, and the nearest residences along Tovey Avenue by approximately 350 feet, as previously indicated in **Exhibit 4.1-2 (Visual Analysis North/South Avenue S Section)** and **Exhibit 4.1-3 (Visual Analysis East/West Tovey Avenue Section)**, respectively, to minimize view impacts of what is currently open space. The area southerly of a portion of the Tovey Avenue neighborhood is proposed for minimum 1-acre lots consistent with the adjacent development. Upper elevations of the Project site will not be developed to maintain quality scenic vistas.

The Project site does not include any heritage trees, rock outcroppings, or historic buildings that would be considered scenic resources. In addition, no roadways in the immediate Project vicinity are designated State scenic highways.

Grading techniques, landscaping design, clustering of residential units within Area A, and preservation of Area B will combine to result in a less than significant impact related to degradation of the existing visual character and quality of the Project site and its surroundings.

Therefore, impacts due to scenic vistas, scenic resources within a State scenic highway, and existing visual

character or quality of the site and its surroundings would be less than significant.

Potentially Significant Impact: Threshold AES-4

Project construction and operation would result in the establishment of new sources of light and glare on the currently vacant property. New light sources will accrue from interior and exterior building lighting, street lighting, lights from added vehicular traffic, as well as from open space night security lighting. In addition, the new residences within Area A would be comprised of surfaces such as windows that reflect sunlight and thereby could cause glare throughout Area A. The new light and glare resulting from the residential development and the community recreation facility within Area A would be apparent to residents and visitors in the surrounding area and would affect night-sky illumination. Therefore, prior to implementing mitigation measures, the impacts due to light and glare would be potentially significant.

4.1.6 MITIGATION MEASURES

- | | |
|-----------------|--|
| MM-AES-1 | The Project developer shall install low-profile, low-intensity lighting directed downward to minimize light and glare. High-intensity outdoor lighting on individual homes and structures shall be prohibited. |
| MM-AES-2 | The Project developer shall use shielded fixtures on lighting along residential streets, greenbelts and at the community facility and parks to minimize glare produced by the lighting on the Project site. |
| MM-AES-3 | Prior to issuance of a Building Permit, the Project developer shall submit a generalized Project-wide Lighting Plan to the Planning Manager for approval. The Lighting Plan implementation elements may be phased in conjunction with the Project development phasing. |

4.1.7 LEVEL OF SIGNIFICANCE AFTER MITIGATION

After implementation of the Mitigation Measures identified above, the potentially significant impact of Project development and operation related to light and glare would be reduced to a less than significant level.

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4.2 Agriculture and Forestry Resources

The analysis in this section is based on the following: City of Palmdale General Plan, “Palmdale 2045”; Los Angeles County General Plan; City of Palmdale Zoning Code; Department of Conservation, Farmland Mapping and Monitoring Program, 1984-2006; and the Quail Valley Planned Development Project plans.

4.2.1 ENVIRONMENTAL SETTING

Agricultural activities occurred on the Project site in the distant past. The existing Project site is vacant. There are areas on the Project site that have been disturbed by off-road vehicle use. The Project site is unused, except for a series of existing dirt roadways. Grade differentials on the Project site are approximately 1,500 feet. The Project site is surrounded by non-agricultural uses. The Project site is not utilized for farmland purposes and is not zoned for agricultural uses. In addition, the Project site is not subject to a Williamson Act contract and is not located within a City of Palmdale or Los Angeles County Agricultural Preserve.

The Project site is not zoned for forest land, timberland, or timberland production. The Project site also does not contain forest land. No agricultural or forest uses occur on the Project site.

4.2.2 REGULATORY FRAMEWORK

City of Palmdale General Plan (Palmdale 2045)

There are no Palmdale 2045 Goals or Policies that pertain to Agriculture and Forestry Resources that are applicable to the proposed project.

4.2.3 THRESHOLDS FOR DETERMINING SIGNIFICANCE

In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Department of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the State’s inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board.

According to Appendix G of the CEQA Guidelines, a project will normally have a significant adverse environmental impact on agriculture and forestry resources if it would:

Threshold AG-1 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.

Threshold AG-2 Conflict with existing zoning for agricultural use, or a Williamson Act contract.

Threshold AG-3 Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 511045(g)).

Threshold AG-4 Result in the loss of forest land or conversion of forest land to non-forest use.

Threshold AG-5 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.

4.2.4 ENVIRONMENTAL IMPACT

Impact Analysis

Threshold AG-1 Would the Project 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?

No Impact.

The Project site has no Prime Farmland, Unique Farmland, or Farmland of Statewide importance as identified by the California State Department of Conservation. Therefore, Project development and operation will not result in converting such land to non-agricultural use. No impact will result.

Threshold AG-2 Would the Project conflict with existing zoning for agricultural use, or a Williamson Act contract?

No Impact.

The Project site is not designated for agricultural use or subject to a Williamson Act contract. Therefore, Project development and operation will not conflict with such zoning or contract. No impact will result.

Threshold AG-3 Would the Project conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 511045(g))?

No Impact.

The Project site is not zoned for forest land, timberland, or timberland production. Therefore, Project development and operation will not conflict with such zoning/re-zoning. No impact will result.

Threshold AG-4 Would the Project result in the loss of forest land or conversion of forest land to non-forest use?

No Impact.

The Project site does not contain forest land. Therefore, Project development and operation will not result in loss of such land or conversion of forest land to non-forest use. No impact will result.

Threshold AG-5 Would the Project 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?

No Impact.

No agricultural uses or forest uses occur on the Project site. Project development and operation will not involve conversion of Farmland to agricultural use or conversion of forest land to non-forest use. No impact will result.

Development on the LAFCO-approved non-Quail Valley properties proposed for annexation would require site-specific environmental analysis of potential impacts pertaining to CEQA-identified Agriculture and Forestry Resources topics for analysis. The non-Quail Valley areas within the overall annexation boundary include vacant lots, lots with existing housing, and the proposed Falcon Glen project area. The development of 975 dwelling units (the maximum allowable under the City pre-zoning on the Falcon Glen project site) could result in impacts to Agriculture and Forestry Resources in the Project and Annexation areas. As the Falcon Glen project is undergoing a separate approval process, the Agriculture and Forestry Resources impacts of that project will be addressed as part of that project review. The Falcon Glen property area is currently vacant land.

4.2.5 CUMULATIVE IMPACTS

As previously indicated, the Project site is not designated for any agriculture or forestry uses. Additionally, there are other recently-developed residential projects within the Project's vicinity. Therefore, Project development will not result in a cumulatively considerable impact to Agricultural and Forestry Resources.

Development on the LAFCO-approved non-Quail Valley properties proposed for annexation would require site-specific environmental analysis of potential cumulative impacts pertaining to CEQA-identified Agriculture and Forestry Resources topics for analysis.

4.2.6 LEVEL OF SIGNIFICANCE BEFORE MITIGATION

Project development and operation will have no impact on agriculture or forestry resources.

4.2.7 MITIGATION MEASURES

No Mitigation Measures are required.

Section 4.2

Environmental Impacts – Agriculture and Forestry Resources

4.2.8 *LEVEL OF SIGNIFICANCE AFTER MITIGATION*

Project development and operation will result in no impact to agriculture or forestry resources.

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4.3 Air Quality

Information for this section was derived from the following: City of Palmdale General Plan – Environmental Resources Element; Los Angeles County General Plan 2035 (October 6, 2015); City Ranch (Anaverde) Specific Plan (May 10, 1992); Landrum & Brown, “Air Quality Assessment For: Quail Valley Residential Development – City of Palmdale” (March 16, 2018); Landrum & Brown, “Validity of Noise, Greenhouse Gas, and Air Quality Studies for Quail Valley Residential Project” (August 18, 2023); and the Quail Valley Planned Development Project plans.

4.3.1 ENVIRONMENTAL SETTING

Existing Conditions

The Project site is located south of Avenue S and west of the California Aqueduct, approximately one mile west of the Antelope Valley Freeway (State Route 14 [SR-14]). Although the Project site is within County of Los Angeles jurisdiction, the Project site is expected to be annexed into the City of Palmdale.

The proposed Project site is located within the Antelope Valley Air Quality Management District (AVAQMD, or District), which is comprised of the northern desert portion of Los Angeles County. The District is bounded by Kern County to the north, San Bernardino County to the east, and includes the cities of Palmdale and Lancaster, Air Force Plant 42, and the southern portion of Edwards Air Force Base. The AVAQMD, together with the California Air Resources Board (CARB), are the primary agencies responsible for regulations pertaining to improvement of air quality in this region of Southern California. As an important partner to the AVAQMD, the Southern California Association of Governments (SCAG) is the designated metropolitan planning authority for the area and produces estimates of anticipated future growth and vehicular travel in the District that are used for air quality planning. The AVAQMD establishes and enforces regulations for non-vehicular sources of air pollution in the District and cooperates with SCAG to develop and implement Transportation Control Measures, which are intended to reduce and improve vehicular travel and associated pollutant emissions.

The California Air Resources Board conducts research into the causes of, and solutions to, air pollution and sets and enforces emission standards for motor vehicles, fuels, and consumer products. CARB establishes health-based California Ambient Air Quality Standards and monitors air quality levels throughout California. CARB also identifies and establishes control measures for toxic air contaminants, performs air quality-related research, provides compliance assistance for businesses, produces education and outreach programs and materials, and provides assistance for local air quality districts, including AVAQMD.

The United States Environmental Protection Agency (EPA) is the primary federal agency for regulating air quality. The EPA implements provisions of the Federal Clean Air Act (Clean Air Act), which establishes national ambient air quality standards (NAAQS) that are applicable nationwide. The EPA designates areas with pollutant concentrations that do not meet the NAAQS as “non-attainment” areas for each criteria pollutant. The Federal Clean Air Act requires each state to prepare a State Implementation Plan (SIP) for designated non-attainment areas to demonstrate how the areas will attain the NAAQS by the prescribed deadlines and what measures will be required to attain the standards. The EPA also oversees implementation of the prescribed measures. Areas that achieve the NAAQS after receiving a non-attainment designation and are re-designated as maintenance areas must have approved Maintenance Plans

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to ensure continued attainment of the NAAQS.

Under the California Clean Air Act (CCAA), the CARB has established California Ambient Air Quality Standards (CAAQS) to protect the health and welfare of Californians. The CCAA required all air pollution control Districts in the State to prepare a plan prior to December 31, 1994 to reduce pollutant concentrations that exceed the CAAQS and ultimately achieve the CAAQS. The Districts are required to review and revise these plans every three years. The AVAQMD satisfies this requirement through the publication of an Air Quality Management Plan (AQMP). AVAQMD and SCAG developed an AQMP and incorporated the Plan into the SIP by CARB to satisfy the Federal Clean Air Act requirements.

Climate

The AVAQMD covers the northern desert portion of Los Angeles County (the Antelope Valley), the cities of Palmdale and Lancaster, and a western portion of the Mojave Desert Air Basin (MDAB). Prevailing winds blow from the west and southwest and are usually sufficient to dissipate locally produced air pollution. However, these winds often transport air pollutants from the Los Angeles basin and the San Joaquin Valley into the desert basin.

The MDAB is classified as a dry-hot desert climate with at least three months having maximum average temperatures exceeding 100.4 degrees Fahrenheit. Winters are relatively cold in the desert. The desert experiences a low average rainfall, with annual precipitation varying between 4 and 9 inches.

Southern California frequently has temperature ground-based or elevated inversions that inhibit dispersion of pollutants. Ground-based inversions are most severe during clear, cold, early winter mornings. Under conditions of ground-based inversions, very little mixing or turbulence occurs and high concentrations of primary pollutants may collect close to major roadways. Elevated inversions can be generated by a variety of meteorological phenomena.

Criteria Pollutants and Standards

Under the Federal Clean Air Act, the United States Environmental Protection Agency has established NAAQS for six major pollutants: ozone (O₃), respirable particulate matter (PM₁₀), fine particulate matter (PM_{2.5}), carbon monoxide (CO), nitrogen dioxide (NO₂), sulfur dioxide (SO₂), and lead. These six pollutants are referred to as the “criteria pollutants.” The NAAQS are two-tiered: Primary, to protect public health; and Secondary, to prevent degradation to the environment. California standards have been established for the six criteria pollutants and for the following four additional pollutants: visibility-reducing particles, sulfates, hydrogen sulfide, and vinyl chloride. The following **Table 4.3-1 (Ambient Air Quality Standards)**, indicates national and State air quality standards.

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Table 4.3-1 – Ambient Air Quality Standards				
<i>Pollutant</i>	Averaging Time	California Standards	<i>National Standards</i>	
			<i>Primary</i>	<i>Secondary</i>
<i>Ozone (O₃)</i>	<i>1 Hour</i>	<i>0.09 ppm</i>	--	--
	<i>8 Hour</i>	<i>0.070 ppm</i>	<i>0.070 ppm</i>	<i>0.070 ppm</i>
<i>Respirable Particulate Matter (PM₁₀)</i>	<i>24 Hour</i>	<i>50 µg/m³</i>	<i>150 µg/m³</i>	<i>150 µg/m³</i>
	<i>Annual Arithmetic Mean</i>	<i>20 µg/m³</i>	--	--
<i>Fine Particulate Matter (PM_{2.5})</i>	<i>24 Hour</i>	--	<i>35 µg/m³</i>	<i>35 µg/m³</i>
	<i>Annual Arithmetic Mean</i>	<i>12 µg/m³</i>	<i>12 µg/m³</i>	<i>15 µg/m³</i>
<i>Carbon Monoxide (CO)</i>	<i>1 Hour</i>	<i>20 ppm</i>	<i>35 ppm</i>	--
	<i>8 Hour</i>	<i>9 ppm</i>	<i>9 ppm</i>	--
	<i>8 Hour (Lake Tahoe)</i>	<i>6 ppm</i>	--	--
<i>Nitrogen Dioxide (NO₂)</i>	<i>1 Hour</i>	<i>0.18 ppm</i>	<i>100 ppb</i>	--
	<i>Annual Arithmetic Mean</i>	<i>0.030 ppm</i>	<i>0.053 ppb</i>	<i>0.053 ppb</i>
<i>Sulfur Dioxide (SO₂)</i>	<i>1 Hour</i>	<i>0.25 ppm</i>	<i>75 ppb</i>	--
	<i>3 Hour</i>	--	--	<i>0.5 ppm</i>
	<i>24 Hour</i>	<i>0.04 ppm</i>	<i>0.14 ppm</i>	--
	<i>Annual Arithmetic Mean</i>	--	<i>0.030 ppm</i>	--
<i>Lead</i>	<i>30 Day Average</i>	<i>1.5 µg/m³</i>	--	--
	<i>Calendar Quarter</i>	--	<i>0.15 µg/m³</i>	--
	<i>Rolling 3-Month Average</i>	--	<i>0.15 µg/m³</i>	<i>0.15 µg/m³</i>
<i>Visibility-Reducing Particles</i>	<i>8 Hour</i>	<i>Extinction coefficient of 0.23 per km – visibility ≥ 10 miles (0.07 per km -- ≥ 30 miles for Lake Tahoe)</i>	<i>No National Standards</i>	
<i>Sulfates</i>	<i>24 Hour</i>	<i>25 µg/m³</i>		
<i>Hydrogen Sulfide</i>	<i>1 Hour</i>	<i>0.03 ppm</i>		
<i>Vinyl Chloride</i>	<i>24 Hour</i>	<i>0.01 ppm</i>		

Source: California Air Resources Board (May 4, 2016).

Ozone (O₃)

Ozone is a secondary pollutant in that it is not directly emitted. Ozone is the result of chemical reactions between volatile organic compounds (VOC) which are also referred to as reactive organic gases (ROG), and nitrogen oxides, which occur only in the presence of bright sunlight. Sunlight and hot weather cause ground-level ozone to form in the air. Ozone concentrations are generally highest during summer months when direct sunlight, light wind and warm temperature conditions are favorable for the formation of this pollutant. Ground-level ozone is the primary constituent of smog.

People with lung disease, children, older adults, and people who are active can be affected when ozone levels are unhealthy. Although lung volume and resistance changes observed after a single exposure diminish with repeated exposures, biochemical and cellular changes appear to persist, which can lead to subsequent lung structural changes. Numerous scientific studies have linked ground-level ozone exposure to a variety of problems that include the following:

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- Lung irritation that can cause inflammation much like a sunburn;
- Wheezing, coughing, pain when taking a deep breath, and breathing difficulties during exercise or outdoor activities;
- Permanent lung damage to those with repeated exposure to ozone pollution; and,
- Aggravated asthma, reduced lung capacity, and increased susceptibility to respiratory illnesses such as pneumonia and bronchitis.

Ground-level ozone can also have detrimental effects on plants and ecosystems that include the following:

- Interfering with the ability of sensitive plants to produce and store food, making them more susceptible to certain diseases, insects, other pollutants, competition, and harsh weather;
- Damaging leaves of trees and other plants, negatively impacting the appearance of urban vegetation, national parks and recreation areas; and
- Reducing crop yields and forest growth, potentially impacting species diversity in ecosystems.

Particulate Matter (PM₁₀ and PM_{2.5})

Particulate matter less than 10 microns is a major air pollutant consisting of tiny solid or liquid particles of soot, dust, smoke, fumes and aerosols. Particulate matter pollution is a major source of reduced visibility caused by the scattering of light and consequently a significant reduction in air clarity. The particles comprising this criteria pollutant are formed in the atmosphere from primary gaseous emissions that include sulfates formed from sulfur dioxide released from power plants and industrial facilities; and nitrates that are formed from nitrogen oxides released from power plants, automobiles and other types of combustion sources. The chemical composition of these fine particles highly depends on location, time of year, and weather conditions.

The principal health effect of airborne particulate matter is on the respiratory system. Short-term exposure to high PM_{2.5} levels is associated with premature mortality and increased hospital admissions and emergency room visits. Long-term exposure to high PM_{2.5} levels is associated with premature mortality and development of chronic respiratory disease. Short-term exposure to high PM₁₀ levels is associated with hospital admissions for cardiopulmonary diseases, increased respiratory symptoms and possible premature mortality. In recent years, some studies have reported an association between long-term exposure to air pollution dominated by fine particles and increased mortality, reduction in life-span, and an increased mortality from lung cancer. Daily fluctuations in PM_{2.5} concentration levels also have been related to hospital admissions for acute respiratory conditions in children, to school and kindergarten absences, to a decrease in respiratory lung volumes in normal children, and to increased medication use in children and adults with asthma. Recent studies show lung function growth in children is reduced with long-term exposure to particulate matter. The elderly with pre-existing respiratory or cardiovascular disease, and children appear to be more susceptible to effects of high levels of PM₁₀ and PM_{2.5}. The EPA has concluded that available evidence does not suggest an association between long-term exposure to PM₁₀ at current ambient levels and health effects.

Diesel Particulate Matter

In 1998, the CARB identified particulate matter from diesel-fueled engines as a Toxic Air Contaminant (TAC). The majority of the heavy construction equipment used during Project development will be diesel fueled and will emit diesel particulate matter (DPM). Impacts from toxic substances are related to cumulative exposure and are assessed over a 70-year period. Cancer risk is expressed as the maximum number of new cases of cancer projected to occur in a population of one million people due to exposure to

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the cancer-causing substance over a 780-year lifetime, as prescribed in the California Environmental Protection Agency, Office of Environmental Health Hazard Assessment, Guide to Health Risk Assessment.

Carbon Monoxide (CO)

Carbon monoxide is a colorless, odorless gas produced by the incomplete combustion of carbon-containing fuels such as gasoline or wood. CO concentrations tend to be highest during winter mornings, when little to no wind and surface-based inversions trap the pollutant at ground levels. Motor vehicles operating at slow speeds are the primary source of CO in the Mojave Desert Air Basin (MDAB). Thereby, the highest ambient CO concentrations generally are found near congested transportation corridors and intersections. However, even under the most severe meteorological and traffic conditions, high concentrations of carbon monoxide are limited to locations within a relatively short distance (up to 600 feet) of heavily traveled roadways.

Individuals with a deficient blood supply to the heart are the most susceptible to adverse effects of CO exposure. Observed effects include earlier onset of chest pain with exercise, and electrocardiograph changes indicative of decreased oxygen supply to the heart. Inhaled CO has no direct toxic effect on the lungs but exerts its effect on tissues by interfering with oxygen transport and competing with oxygen to combine with hemoglobin present in the blood to form carboxyhemoglobin. Hence, conditions with an increased demand for oxygen supply can be adversely affected by exposure to CO. Individuals most at risk include fetuses, patients with diseases involving heart and blood vessels, and patients with chronic hypoxemia (oxygen deficiency) as seen at high altitudes. Recent studies have found increased risks for adverse birth outcomes with exposure to elevated CO levels, including pre-term births and heart abnormalities.

Overall, carbon monoxide emissions are decreasing as a result of the Federal Motor Vehicle Control Program, which has mandated increasingly lower emission levels for vehicles manufactured since 1973.

Nitrogen Dioxide (NO₂)

Nitrogen gas comprises approximately 80 percent of the air. Nitrogen oxides consist of nitric oxide (NO), nitrogen dioxide (NO₂) and nitrous oxide (N₂O) and are formed when nitrogen (N₂) combines with oxygen (O₂). Their lifespan in the atmosphere ranges from one to seven days for nitric oxide and nitrogen dioxide, to 170 years for nitrous oxide. Nitrogen oxides are typically created during combustion processes and are major contributors to smog formation and acid deposition.

Nitrogen dioxide is a criteria air pollutant and may result in numerous adverse health effects. Laboratory studies demonstrate susceptible humans such as asthmatics, exposed to high concentrations of nitrogen dioxide can suffer lung irritation and potential lung damage. As ambient concentrations of nitrogen dioxide are related to traffic density, commuters in heavy traffic may be exposed to higher concentrations of nitrogen dioxide than those indicated by regional monitoring stations.

Sulfur Dioxide (SO₂)

Sulfur dioxide is a colorless, extremely irritating gas or liquid. It enters the atmosphere as a pollutant primarily as a result of burning high sulfur-content fuel, oils, and coal, and from chemical processes occurring at chemical plants and refineries. When SO₂ oxidizes in the atmosphere, it forms sulfates (SO₄). Collectively, these pollutants are referred to as sulfur oxides (SO_x). SO₂ also combines with water and forms aerosols of sulfurous acid (H₂SO₃), a colorless, mildly corrosive liquid. This liquid may then combine with oxygen in the air, forming the even more irritating and corrosive sulfuric acid (H₂SO₄).

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In asthmatics, an increase in resistance to air flow, as well as a reduction in breathing capacity leading to severe breathing difficulties are observed after acute exposure to sulfur dioxide. In contrast, healthy individuals do not exhibit similar acute responses even after exposure to higher concentrations of sulfur dioxide.

Lead (Pb)

Lead is a heavy metal that is highly persistent in the environment. In the past, the primary source of lead in the air was emissions from vehicles burning leaded gasoline. Major sources of lead emissions today are ore and metals processing, particularly lead smelters, and piston-engine aircraft operating on leaded aviation gasoline. Other stationary sources include waste incinerators, utilities, and lead-acid battery manufacturers.

Exposure to low levels of lead can adversely affect development and function of the central nervous system, leading to learning disorders, distractibility, inability to follow simple commands, and lower intelligence quotient. Fetuses, infants and children are more sensitive than others to adverse effects of lead exposure. In adults, increased lead levels are associated with increased blood pressure. Lead poisoning can cause anemia, lethargy, seizures, and death although it appears there are no direct effects of lead on the respiratory system. Lead can be stored in the bone from early age environmental exposure and elevated blood lead levels can occur due to breakdown of bone tissue during pregnancy, hyperthyroidism (increased secretion of hormones from the thyroid gland) and osteoporosis (breakdown of bony tissue). Fetuses and breast-fed babies can be exposed to higher levels of lead because of previous environmental lead exposure of their mothers.

Visibility-Reducing Particulates

Visibility-reducing particles consist of suspended particulate matter, which is a complex mixture of tiny particles that comprises of dry solid fragments, solid cores with liquid coatings, and small droplets of liquid. These particles vary greatly in shape, size and chemical composition, and can be comprised of many different materials such as metals, soot, soil, dust and salt. The Statewide standard is intended to limit frequency and severity of visibility impairment due to regional haze.

Sulfates (SO₂)

Sulfates are the fully oxidized ionic form of sulfur. Sulfates occur in combination with metal and/or hydrogen ions. In California, emissions of sulfur compounds occur primarily from combustion of petroleum-derived fuels that contain sulfur. This sulfur is oxidized to sulfur dioxide during the combustion process and subsequently converted to sulfate compounds in the atmosphere. Conversion of SO₂ to sulfates takes place comparatively rapidly and completely in urban areas of California due to regional meteorological features.

The Air Resources Board sulfates standard is designed to prevent aggravation of respiratory symptoms. Effects of sulfate exposure at levels above the standard include a decrease in ventilatory function, aggravation of asthmatic symptoms, and an increased risk of cardio-pulmonary disease. Sulfates are particularly effective in degrading visibility and, due to the fact that they are usually acidic, can harm ecosystems and damage materials and property.

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Hydrogen Sulfide (H₂S)

Hydrogen sulfide is a colorless gas with the odor of rotten eggs that is formed during bacterial decomposition of sulfur-containing organic substances. Hydrogen sulfide can also be present in sewer gas and some natural gas, and can be emitted as the result of geothermal energy exploitation.

Vinyl Chloride (Chloroethene)

Vinyl chloride is a colorless gas with a mild, sweet odor. Most vinyl chloride is used to make polyvinyl chloride plastic and vinyl products. Vinyl chloride has been detected near landfills, sewage plants, and hazardous waste sites, due to microbial breakdown of chlorinated solvents. Short-term exposure to high levels of vinyl chloride in the air causes central nervous system effects, such as dizziness, drowsiness, and headaches. Long-term exposure to vinyl chloride through inhalation and oral exposure causes liver damage. Cancer is a major concern from exposure to vinyl chloride via inhalation.

Volatile Organic Compounds (VOC)

Volatile organic compounds are hydrocarbon compounds (any compound containing various combinations of hydrogen and carbon atoms) that exist in the ambient air. Volatile organic compounds contribute to the formation of smog through atmospheric photochemical reactions and/or may be toxic. Compounds of carbon (also known as organic compounds) have different levels of reactivity; that is, they do not react at the same speed or do not form ozone to the same extent when exposed to photochemical processes. These compounds often have an odor. Some examples include gasoline, alcohol, and solvents used in paints. Exceptions to the Volatile Organic Compounds designation include the following: carbon monoxide, carbon dioxide, carbonic acid, metallic carbides or carbonates, and ammonium carbonate. Volatile organic compounds are a criteria pollutant because they are a precursor to ozone.

Reactive Organic Gases (ROG)

Reactive organic gases are precursors to forming ozone and consist of compounds containing methane, ethane, propane, butane, and longer chain hydrocarbons that typically are the result of some type of combustion or decomposition process. Smog is formed when reactive organic gases and nitrogen oxides react in the presence of sunlight. Reactive organic gases are a precursor to ozone.

AVAQMD Air Quality Attainment Designations

The following **Table 4.3-2 (Designations of Criteria Pollutants for the AVAQMD)**, lists current attainment designations for the Antelope Valley Air Quality Management District and shows that the United States Environmental Protection Agency has designated AVAQMD as non-attainment for ozone, and unclassified/attainment for PM₁₀, PM_{2.5}, carbon monoxide, nitrogen dioxide, sulfur dioxide, and lead. The State of California has designated AVAQMD as non-attainment for ozone and PM₁₀, and attainment for carbon monoxide, nitrogen dioxide, sulfur dioxide, lead, and sulfates. The remaining criteria pollutants, PM_{2.5}, visibility-reducing particles, hydrogen sulfide and vinyl chloride are designated as unclassified.

Table 4.3-2 – Designations of Criteria Pollutants for the AVAQMD		
<i>Pollutant</i>	<i>Federal</i>	<i>State</i>
<i>Ozone</i>	<i>Non-Attainment</i>	<i>Non-Attainment</i>
<i>Respirable Particulate Matter</i>	<i>Unclassified/Attainment</i>	<i>Non-Attainment</i>
<i>Fine Particulate Matter</i>	<i>Unclassified/Attainment</i>	<i>Unclassified</i>
<i>Carbon Monoxide</i>	<i>Unclassified/Attainment</i>	<i>Attainment</i>
<i>Nitrogen Dioxide</i>	<i>Unclassified/Attainment</i>	<i>Attainment</i>
<i>Sulfur Dioxide</i>	<i>Unclassified/Attainment</i>	<i>Attainment</i>
<i>Lead</i>	<i>Unclassified/Attainment</i>	<i>Attainment</i>
<i>Visibility-Reducing Particles</i>	<i>n/a</i>	<i>Unclassified</i>
<i>Sulfates</i>	<i>n/a</i>	<i>Attainment</i>
<i>Hydrogen Sulfide</i>	<i>n/a</i>	<i>Unclassified</i>
<i>Vinyl Chloride</i>	<i>n/a</i>	<i>Unclassified</i>

Source: California Air Resources Board, Air Quality Planning and Science Division. August 2019.

Air Quality Management Plan

The Federal Clean Air Act requires all states with designated non-attainment areas to prepare a SIP to demonstrate attainment of the National Ambient Air Quality Standards. The California Air Resources Board compiles SIPs for California. Local air pollution control districts are responsible for preparing portions of the SIP that address local non-transportation pollutant sources within their jurisdictions and demonstrate attainment of the National Ambient Air Quality Standards by the required date. In addition, California Clean Air Act requires the AVAQMD to publish a plan to reduce pollutant concentrations exceeding the California Clean Air Act Standards.

The 1994 Air Quality Management Plan was the most recent ozone attainment plan for the desert portion of Los Angeles County that has been approved by the United States EPA. The United States EPA has approved a revision to the 1997 Air Quality Management Plan adopted after formation of the Antelope Valley Air Pollution Control District. The AVAQMD adopted the AVAQMD 2004 Ozone Attainment Plan on April 20, 2004 and adopted the AVAQMD Federal 8-Hour Ozone Attainment Plan on May 20, 2008. The AVAQMD Air Quality Management Plan is the most important document for the AVAQMD because it provides the blueprint for meeting State and Federal ambient air quality standards. The Plan contains existing and future air pollutant emissions inventories for the Basin and results of modeling of pollutant concentrations. To comply with Federal Clean Air Act SIP requirements, the Plan must present control measures, together with the estimated effectiveness to ensure future concentrations will be less than the National Ambient Air Quality Standards by the required attainment date for each pollutant. The California Clean Air Act requires Air Quality Management Plans to be updated every three years.

Monitored Air Quality

Mobile sources are the major source of regional emissions. Motor vehicles account for approximately 41 percent of volatile organic compounds and 44 percent of nitrogen oxide emissions.

Air quality for the Project site vicinity is collected at the Lancaster monitoring station. Data collected at the Lancaster station is considered representative of air quality experienced in the Project site vicinity. Since the Project site is currently vacant, existing air quality conditions at the Project site would generally reflect ambient monitored conditions as presented in the following **Table 4.3-3 (Air Quality Levels Measured at Lancaster Monitoring System)**. Air pollutants measured at the Lancaster station include the following: ozone, PM₁₀, PM_{2.5}, and nitrogen dioxide. Monitoring data presented in **Table 4.3-3** were obtained from

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the California Air Resources Basin air quality data website. This table also presents Federal and State air quality standards.

Table 4.3-3 – Air Quality Levels Measured at Lancaster Monitoring System						
<i>Pollutant</i>	<i>California Standard</i>	<i>National Standard</i>	<i>Year</i>	<i>Maximum Level</i>	<i>Days State Standard Exceeded</i>	<i>Days National Standard Exceeded</i>
Respirable Particulates PM₁₀ <i>24-Hour Average</i>	50 µg/m ³	150 µg/m ³	2016	--	--/--	0/0
			2015	--	--/--	0/0
			2014	--	--/--	0/0
			2013	173.4	--/2	--/0
Respirable Particulates PM₁₀ <i>Annual Arithmetic Mean</i>	20 µg/m ³	None	2016	25.7	Yes	n/a
			2015	19.4	No	n/a
			2014	24.3	Yes	n/a
			2013	21.8	Yes	n/a
Fine Particulates PM_{2.5} <i>24-Hour Average</i>	None	35 µg/m ³	2016	64.8	n/a	2/2
			2015	10.4	n/a	--/0
			2014	42	n/a	1/6.9
			2013	11.9	n/a	0/0
Fine Particulates PM_{2.5} <i>Annual Arithmetic Mean</i>	12 µg/m ³	15 µg/m ³	2016	7.7	No	No
			2015	--	--	--
			2014	7.2	No	No
			2013	5.8	No	No
Ozone <i>1-Hour Average</i>	0.09 ppm	None	2016	0.108	3	n/a
			2015	0.132	26	n/a
			2014	0.101	3	n/a
			2013	0.108	9	n/a
Ozone <i>8-Hour Average</i>	0.070 ppm	0.070 ppm	2016	0.091	65	60
			2015	0.103	82	80
			2014	0.088	36	35
			2013	0.094	53	50
Nitrogen Dioxide <i>1-Hour Average</i>	0.18 ppm	0.10 ppm	2016	0.048	0	0
			2015	0.041	0	0
			2014	0.051	0	0
			2013	0.047	0	0
Nitrogen Dioxide <i>Annual Arithmetic Mean</i>	.030 ppm	.053 ppm	2016	0.008	No	No
			2015	--	No	No
			2014	0.008	No	No
			2013	0.008	No	No

Source: California Air Resources Board, www.arb.ca.gov/adam/

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4.3.2 METHODOLOGY

Project Construction Emissions Calculation Methodology

Landrum & Brown calculated emissions during the primary construction phases using the CalEEMod program. This Program model calculates total emissions that would result from each construction activity, on-site and off-site, that are compared to the AVAQM Regional Thresholds. The Project was modeled for the following phases:

Phase 1: Site Preparation, Grading, Building Construction, Paving, and Architectural Coating

Approximately 45 percent (395 acres) of the approximately 878.1-acre Project site will not be developed as part of the Project. That is, approximately 483 acres comprise the development envelope and will require site preparation that will include fuel modification which will not require soil disturbance. It is assumed site preparation will occur over a two-year timeframe. All soil disturbance will be balanced on site. Phase 1 may generate as many as 18 worker vehicular trips a day, with a trip component of approximately 10 miles over a maximum of 47 working days.

Phase 2: Site Preparation, Grading, Building Construction, Paving, and Architectural Coating

Approximately 403 acres of the 878.1-acre Project site are estimated to be graded. It is assumed that approximately 25 percent of the 403 acres would be graded at any one time over the anticipated four-year Project development schedule. Grading will be balanced on the Project site.

Phases 3, 4, and 5: Building Construction, Paving, and Architectural Coating

Project development will include construction of 730 single-family residential units, a recreation center, pool, and community park. Equipment expected to be used for building construction includes one crane, three forklifts, three loaders/backhoes, one welder, and one generator set. Building construction may generate as many as 97 worker vehicular trips daily with a trip component of approximately 11 miles, and 32 vendor trips with a trip component of approximately 7 miles. Building construction is anticipated to occur for a maximum of 1,480 working days. Project development includes a construction component for the decomposed granite recreation trails and asphalt roadway paving within the Project site. Project development will require approximately 3 acres of non-asphalt (decomposed granite) for gravel recreation trails and approximately 35.1 acres of asphalt for the asphalt roadway. Equipment expected to be used for paving includes two pavers, two sets of paving equipment, and two rollers. The paving component of Project development may generate as many as 15 worker vehicular trips daily, with a trip component of approximately 11 miles. Paving is expected to occur for a maximum combined 64 working days during two phases. The final construction component for each phase will be architectural coatings, including architectural coatings for the newly constructed structures and roadway striping. Equipment expected to be used for architectural coating includes one air compressor. The paving component may generate as many as 19 worker vehicular trips daily, with a trip component of approximately 11 miles. Architectural coating is expected to occur for a maximum combined 900 working days over five phases.

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4.3.3 *REGULATORY FRAMEWORK*

Federal Regulations

The United States Environmental Protection Agency (EPA) is responsible for setting and enforcing the NAAQS for ozone, carbon monoxide, nitrogen oxides, sulfur dioxide, PM₁₀, and lead. The EPA has jurisdiction over emissions sources that are under the authority of the Federal government including aircraft, locomotives, and emissions sources outside state waters. The EPA also establishes emission standards for vehicles sold in states other than California. Automobiles sold in California must meet the stricter emission requirements of the CARB.

The Federal Clean Air Act (CAA) was first enacted in 1955 and subsequently has been amended numerous times. The CAA establishes the Federal air quality standards, the NAAQS, and specifies future dates for achieving compliance. The CAA also mandates that states submit and implement SIPs for local areas not meeting these standards. The SIP must include pollution control measures that demonstrate how the standards will be met.

Sections of the CAA most directly applicable to Project development and operation include Title I, Non-Attainment Provisions and Title II, Mobile Source Provisions. Title I provisions were established with the goal of attaining the NAAQS for the following criteria pollutants: ozone, nitrogen dioxide, sulfur dioxide, PM₁₀, PM_{2.5}, carbon monoxide, and lead. The NAAQS were amended in July 1997 to include an additional standard for ozone and to adopt a NAAQS for PM_{2.5}. Mobile source emissions are regulated in accordance with Title II provisions, which require use of cleaner burning gasoline and other cleaner burning fuels such as methanol and natural gas. Automobile manufacturers are also required to reduce tailpipe emissions of hydrocarbons and nitrogen oxides.

State Regulations

The CARB became part of the California Environmental Protection Agency in 1991 and is responsible for ensuring implementation of the California Clean Air Act (Assembly Bill 2595), responding to the Federal CAA, and regulating emissions from consumer products and motor vehicles. The California CAA mandates achievement of the maximum degree of emissions reductions possible from vehicular and other mobile sources to attain the State ambient air quality standards by the earliest practical date. The CARB established the CAAQS for all pollutants for which the Federal government has NAAQS and establishes standards for sulfates, visibility-reducing particles, hydrogen sulfide, and vinyl chloride. However, hydrogen sulfide and vinyl chloride are not measured at any monitoring stations in the MDAB because they are not considered to be a regional air quality problem. In general, the CAAQS are more stringent than the NAAQS.

Antelope Valley Air Quality Management District (AVAQMD)

Local air quality management districts, such as the AVAQMD, regulate air emissions from stationary sources such as commercial and industrial facilities. All air pollution control districts have been formally designated as attainment or non-attainment for each CAAQS. Serious non-attainment areas are required to prepare air quality management plans that include specified emission reduction strategies in an effort to meet clean air goals. The plans are required to include the following:

- Application of Best Available Retrofit Control Technology to existing sources;

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- Developing control programs for area sources (e.g., architectural coatings and solvents) and indirect sources (e.g., motor vehicle uses generated by residential and commercial development);
- A District permitting system designed to allow no net increase in emissions from any new or modified permitted sources of emissions;
- Implementing reasonably available transportation control measures and assuring a substantial reduction in growth rate of vehicle trips and miles traveled;
- Significant use of low emissions vehicles by fleet operators; and,
- Sufficient control strategies to achieve a five percent or more annual reduction in emissions or 15 percent or more in a period of three years for reactive organic gases, nitrogen oxides, carbon monoxide, and PM₁₀. However, air basins may use alternative emission reduction strategies that achieve a reduction of less than five percent per year under certain circumstances.

Title 24 Energy Efficiency Standards and California Green Building Standards

California Code of Regulations Title 24 Part 6: California's Energy Efficiency Standards for Residential and Nonresidential Buildings was first adopted in 1978 to reduce California's energy consumption and is updated periodically to allow consideration and potential incorporation of new energy technologies and methods with the final goal of decreasing greenhouse gas emissions. The 2019 Title 24 standards require upgrades to interior and exterior lighting for nonresidential buildings that are estimated to result in use of approximately 30 percent less energy.

California Code of Regulations, Title 24, Part 11: California Green Building Standards Code (CALGreen) is a comprehensive and uniform regulatory code administered by the California Building Standards Commission for all residential, commercial and school buildings that became effective on January 1, 2011. The most recent CALGreen update occurred in 2016, with an effective date of January 1, 2017. Local jurisdictions are permitted to adopt more stringent requirements. CALGreen requires the following for buildings to be certified for occupancy:

- Short-term bicycle parking;
- Long-term bicycle parking;
- Designated parking for any combination of low-emitting, fuel-efficient and carpool/van pool vehicles;
- Recycling by Occupants – readily accessible areas that serve the entire building and are identified for depositing, storage and collection of non-hazardous materials for recycling;
- Diversion of a minimum 65 percent of construction and demolition waste from landfills, increasing voluntarily to 80 percent for new homes and commercial projects and reuse of 100 percent of trees, stumps, rocks and associated vegetation and soils resulting from land clearing;
- Mandatory reduction of 20 percent of indoor water use with voluntary standards for 30, 35 and 40 percent reductions;
- Provision of separate water meters for buildings in excess of 50,000 square feet or buildings projected to consume more than 1,000 gallons per day;
- Moisture-sensing irrigation systems for larger landscaped areas;
- Use of low-pollutant emitting interior finish materials such as paints, carpet, vinyl flooring and particleboard; and,
- Mandatory inspections of energy systems (i.e., heat furnace, air conditioner, mechanical equipment) for nonresidential buildings over 10,000 square feet in area to ensure all are working at their maximum capacity according to their design efficiencies.

Air Quality Management Planning

The Project site is within the jurisdiction of the Antelope Valley Air Quality Management District (AVAQMD), which was created by the Lewis Air Quality Management Act in 1976 from a voluntary association of air pollution control districts in Los Angeles, Riverside, and San Bernardino counties. The geographic area encompassing the AVAQMD is called the Mojave Desert Air Basin (MDAB). AVAQMD develops comprehensive plans and regulatory programs for the region to attain national standards by dates specified in Federal law. In addition, AVAQMD is responsible for meeting standards by the earliest date achievable, using reasonably available control measures. AVAQMD created Air Quality Management Plans that represent a regional blueprint for achieving healthful air on behalf of the 600,000 residents of the MDAB. As a result, a “dramatic improvement” (according to the Air Quality Impact Analysis prepared for the Project) occurred in Basin air quality. The Air Quality Impact Analysis further states that “nearly all control programs developed through the early 1990s relied on (i) the development and application of cleaner technology; (ii) add-on emission controls, and (iii) uniform CEQA review throughout the Basin.” This approach has significantly reduced emissions from industrial sources. In addition, vehicular emissions have been reduced by technologies implemented at the State level by the CARB.

Ozone, nitrogen oxides, volatile organic compounds and carbon monoxide have been decreasing in the MDAB since 1975, “and are projected to decrease through 2020.” The decreases result largely from motor vehicle controls and reductions in evaporative emissions. Vehicle miles traveled in the MDAB continue to increase but nitrogen oxides and volatile organic compound levels are decreasing due to mandated controls on motor vehicles and replacement of older polluting vehicles with lower-emitting vehicles. In addition, nitrogen oxide emissions from electric utilities also have decreased due to use of cleaner fuels and renewable energy. Ozone contour maps demonstrate the number of days exceeding the national 8-hour standard has decreased between 1997 and 2007. In 2007, there was an overall decrease in exceedance days compared with 1997 data. Ozone levels in the MDAB have decreased substantially over the last 30 years; maximum concentrations today are approximately one-third of ozone concentrations in the late 1970s.

Overall trends of PM₁₀ and PM_{2.5} levels in the air (not emissions) demonstrate an improvement since 1975. Direct emissions of PM₁₀ have remained generally constant in the MDAB and direct emissions of PM_{2.5} have decreased slightly since 1975. The most recent PM₁₀ statistics demonstrate an overall improvement. However, there are days when concentrations will exceed the threshold although the values are below the Federal standard. The 24-hour State annual average for PM₁₀ emissions have decreased by approximately 56 percent since 1988. Overall, the national and State annual average concentrations of PM_{2.5} have decreased by almost 52 percent and 30 percent, respectively.

The most recent carbon monoxide concentrations in the MDAB have decreased “markedly;” approximately 80 percent in the peak 8-hour concentration since 1986. Year 2012 is the most recent year where 8-hour carbon monoxide averages and related statistics for the MDAB are available. The number of exceedance days has also declined. The entire MDAB “is now designated as attainment for both the state and national CO standards.” Reductions from motor vehicles are anticipated to continue due to motor vehicle control programs.

The most recent data for nitrogen dioxide in the MDAB indicates that over the last 50 years nitrogen dioxide values have decreased significantly. Peak 1-hour national and State averages for 2017 is approximately 77 percent lower than the corresponding averages during 1963. The MDAB attained the State 1-hour nitrogen dioxide standard in 1994, thereby bringing the entire State into attainment. The new State annual average standard of 0.030 parts per million “is just barely exceeded” in the MDAB. Future emission control measures that will be implemented as part of the overall ozone control strategy are expected to bring the

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MDAB into attainment of the State annual average standard.

AVAQMD Rules currently applicable during Project development (construction) include, but are not limited to, Rule 1113 (Architectural Coatings) and Rule 403 (Fugitive Dust).

American Lung Association data collected from State air quality monitors are used to compile an annual State of the Air report. This report indicates air quality in the MDAB has significantly improved in terms of both pollution levels and high pollution days over the past three decades.

Local Regulations

City of Palmdale General Plan (Palmdale 2045)

A General Plan Consistency Assessment of Palmdale 2045 Goals and Policies, relevant to the Quail Valley Air Quality analysis is contained in Appendix A of this EIR.

Circulation and Mobility Element

Policy CM-6.1: Prioritize transportation investments and strategies that create opportunities for residents to reduce Vehicle Miles Traveled.

Policy CM-8.5: **Residential Development.** Require residential developments to contribute toward City programs to reduce vehicle trips.

Equitable and Healthy Communities Element

Goal EHC-12: **A City designed to improve air quality and reduce disparate health impacts.**

Policy EHC-12.4: **Sensitive Land Uses.** Avoid siting schools, daycare facilities, playgrounds, older adult housing, and housing near land uses that produce localized air pollution (e.g., SR-14, SR-138, and Plant 42). For sensitive land uses that cannot be sited at least 500 feet away from sources of localized air pollution, potential design mitigation options include:

- Provide residential units with individual heating, ventilation, and air conditioning (HVAC) systems to allow adequate ventilation with windows closed.
- Locate air intake systems for HVAC systems as far away from existing air pollution sources as possible.
- Use High Efficiency Particulate Air (HEPA) air filters in the HVAC system and develop a maintenance plan to ensure the filtering system is properly maintained.
- Use sound walls, berms, and vegetation as physical barriers.
- Notify new potential home buyers of risks from air pollution.

Sustainability, Climate Action, and Resilience Element

Goal SCR-1: **Achieve a Carbon Neutral Community by 2045 (EO B-55-18).**

Goal SCR-2: **Utilize a Fossil Fuel Free Energy System (SB 100).**

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- Goal SCR-3:** **Green and Decarbonized Buildings for New Construction and Major Renovations.**
- Goal SCR-4:** **Reduced Greenhouse Gas Emissions from Transportation SB 379, EO N-79-20).**
- Policy SCR-4.1:** **Bike Facilities.** Promote bicycle use with new private development projects through requirements for bicycle parking, lockers and showers, bike share facilities, and when feasible, connections to City bike lanes.
- Policy SCR-7.1:** **Tree Planting in Public Spaces.** Plant additional trees on streets, parks, and other public spaces to sequester carbon, provide shade, contribute to stormwater management, provide habitat, and enhance community character.

Air Quality Element

- Goal AQ-1:** **Minimize Local Air Pollution Caused by Motor Vehicles.**
- Policy AQ-1-8:** **Environmentally Review New Development.** Use the environmental review process for new development applications to assess and, as necessary, mitigate the impacts of new development related to increased vehicle miles traveled.
- Goal AQ-2:** **Minimize Particulates Less than 10 Microns in Size (PM10) and Minimizes Activities that Generate Dust.**
- Policy AQ-2-2:** **Construction Site Requirements.** Require measures at construction sites to prevent deposition of soil onto public right-of-way.
- Policy AQ-2-4:** **Erosion and Dust Control Measures.** Require erosion and dust control measures for new construction, including covering soil with straw mats or use of chemical soil and dust binders during site grading, followed by hydroseeding and watering disturbed construction areas as soon as possible after grading to prevent fugitive dust.
- Goal AQ-3:** **Reduction and/or Elimination of unnecessary Sources of Air Pollution.**
- Policy AQ-3-3:** **Complete Streets.** Design a more effective street system by emphasizing complete streets which accommodate all modes of transportation.
- Policy AQ-3-4:** **Reduce Reactive Organic Gas.** Reduce reactive organic gas (ROG) and particulate emissions from building materials and construction methods, by promoting the use of nonsolvent-based, high-solid, or water-based coatings, and requiring compliance with all pertinent AVAQMD rules.
- Policy AQ-3-5:** **Minimize Emissions.** Minimize emissions of toxic air contaminants that contribute to climate change and ozone depletion, and that create potential health risks for residents, workers, and visitors.

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Policy AQ-3-7:	Environmentally Review New Development Applications. Through the environmental review process for new development applications, ensure that emissions of toxic air contaminants are minimized and that any significant health effects associated with such contaminants are appropriately mitigated.
Goal AQ-4:	Reduce Air Pollution Caused by Energy Consumption.
Policy AQ-4-2:	Energy Conservation. Encourage energy conservation from all sectors of the community by promoting and/or requiring the use of energy efficient appliances, processes, and equipment, and promoting energy audits and retrofits of existing structures.
Policy AQ-4-4:	Solar Energy. Require new developments to minimize obstruction of direct sunlight for solar energy systems on adjacent properties.

4.3.4 THRESHOLDS FOR DETERMINING SIGNIFICANCE

The City of Palmdale has adopted Thresholds of Significance from the CEQA Guidelines Appendix G Thresholds, as reflected in the Initial Study prepared for the Project. In addition, this EIR, following the methodology used in the Air Quality Assessment prepared for the Project, uses the following *2016 Antelope Valley AQMD CEQA and Federal Conformity Guidelines* to comprise the basis of impact analyses.

According to Appendix G of the CEQA Guidelines, a project will normally have a significant adverse environmental impact on air quality if it would:

Threshold AQ-1	Conflict with or obstruct implementation of the applicable air quality plan.
Threshold AQ-2	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.
Threshold AQ-3	Expose sensitive receptors to substantial pollutant concentrations.
Threshold AQ-4	Result in other emissions (such as those leading to odors) affecting a substantial number of people.

4.3.5 ENVIRONMENTAL IMPACT

Impact Analysis

Threshold AQ-1	Would the Project conflict with or obstruct implementation of the applicable air quality plan?
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Less Than Significant Impact.

The following **Table 4.3-4 (AVAQMD Regional Pollutant Emission Thresholds of Significance)**,

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presents the AVAQMD significance thresholds as an annual value and a daily value for Project development and Project operation phases. A project with daily emission rates less than these thresholds is considered to have a Less Than Significant Impact on regional air quality throughout the AVAMD. During Project operation, motor vehicles will be the primary source of regional emissions. Other on-site emissions will be generated from natural gas combustion for water, space heating and consumer product use. Emissions will also be generated from the use of natural gas consumed by the occupants of the proposed Project.

Table 4.3-4 – AVAQMD Regional Pollutant Emission Thresholds of Significance		
<i>Criteria Pollutant</i>	Annual Threshold (tons)	Daily Threshold (pounds)
<i>Greenhouse Gases (CO_{2e})</i>	100,000	548,000
<i>Carbon Monoxide</i>	100	548
<i>Oxides of Nitrogen</i>	25	137
<i>Volatile Organic Compounds</i>	25	137
<i>Oxides of Sulfur</i>	25	137
<i>Particulate Matter (PM₁₀)</i>	15	82
<i>Particulate Matter (PM_{2.5})</i>	12	65
<i>Hydrogen Sulfide</i>	10	54
<i>Lead</i>	0.6	3

Source: Antelope Valley Air Quality Management District, California Environmental Quality Act (CEQA) and Federal Conformity Guidelines.

Data estimates for the on-site combustion of natural gas are based on the proposed land uses (number of dwelling units and square footage of other land uses) and emission factors from the California Climate Action Registry. CalEEMod uses trip rates based on the Institute of Transportation Engineers, 9th edition, average trip rates for respective categories of land use. Average trip length was calculated to be 7.2 miles for residential uses. In August 2017, Ruettgers & Schuler prepared the average daily traffic data for the Project, according to a development of 741 single-family residential units. The operative Project was estimated to generate 1,839 daily vehicular trips. The following **Table 4.3-5 (Total Operational Emissions by Activity)**, presents total operational emissions by activity.

Table 4.3-5 – Total Operational Emissions by Activity				
<i>Activity</i>	CO	NO_x	PM₁₀	PM_{2.5}
<i>Mobile</i>	186.7	70	45.5	12.5
<i>Energy</i>	2.2	5.1	0.4	0.4
<i>Architectural Coating</i>	0	0	0	0
<i>Landscaping</i>	61.2	0.7	0.3	0.3
<i>Consumer Products</i>	0	0	0	0
<i>Hearth</i>	5.2	12.3	1	1
<i>Significance Threshold</i>	548	137	82	65
<i>Exceed Threshold?</i>	No	No	No	No

Source: Landrum & Brown, "Air Quality Assessment For: Quail Valley Residential Development – City of Palmdale, March 16, 2018.

According to this table, the total Project operational emissions will be below AVAQMD significance thresholds. Therefore, the Project would result in a less than significant regional air quality impact and no mitigation is required.

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Threshold AQ-2 Would the Project 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?

Significant and Unavoidable Impact.

Construction activities for large development projects such as the proposed Project, are estimated by the United States EPA (according to the 1993 CEQA Handbook emission factor for disturbed soil is approximately 26 pounds of PM₁₀ per day per acre, or 0.40 tons of PM₁₀ per month per acre). If water or other soil stabilizers are used to control dust as required by AVAQMD Rule 403, emissions can be reduced by 50 percent. PM₁₀ calculations include the 50 percent reduction from watering.

Typical emission rates for construction equipment within CalEEMod are derived from the CARB OFFROAD 2011, and are presented in terms of pounds of pollutant per hour of equipment operation. Actual emissions from construction equipment would be dependent on the age of the specific equipment used at the construction site. Construction that would occur in the future would likely emit fewer emissions because newer equipment would replace older equipment used.

Typically, the greatest levels of air pollutant emissions during construction activities would occur during site grading, demolition and/or excavation. Operating more than four pieces of the largest heavy equipment for eight hours a day or six to eight pieces of smaller equipment will generate NO_x emissions in excess of AVAQMD's 137 pounds per day significance threshold.

In general, actively disturbing 10 or fewer acres daily during site preparation will not generate PM₁₀ emissions greater than the 82 pounds per day significance threshold. In addition, diesel emissions resulting from Project development are not expected to result in a significant impact due to the relatively short duration of construction compared to a 70-year lifespan.

Project construction air pollutant emissions calculations are presented in the following **Table 4.3-6 (Total Construction Emissions by Activity)**. Daily emissions are calculated and represent the highest level of emissions during each construction activity. The data in this **Table 4.3-6** demonstrate that grading construction activity in 2021 will generate emissions that exceed the AVAQMD Regional Emissions Significance Thresholds pertaining to oxides of nitrogen.

The following **Table 4.3-7 (Total Concurrent Construction Emissions)**, presents total emissions during concurrent construction activities, which are the sum of emissions presented for the concurrent activities. This **Table 4.3-7** demonstrates that concurrent construction activities in 2020, including grading, site preparation, building construction, paving and architectural coating will generate emissions that exceed the AVAQMD Regional Emissions Significance Threshold pertaining to oxides of nitrogen.

Table 4.3-6 – Total Construction Emissions by Activity						
Daily Emissions (pounds/day)						
<i>Activity</i>	<i>CO</i>	<i>NO_x</i>	<i>VOC</i>	<i>PM₁₀</i>	<i>PM_{2.5}</i>	<i>SO_x</i>
<i>Architectural Coating – 2020</i>	2.7	1.7	62.7	0.3	0.2	0
<i>Architectural Coating – 2021</i>	2.6	1.6	56.1	0.3	0.1	0
<i>Architectural Coating – 2022</i>	2.6	1.5	56.1	0.2	0.1	0
<i>Architectural Coating – 2023</i>	2.4	1.3	64.1	0.2	0.1	0
<i>Architectural Coating – 2025</i>	1.9	1.1	9.5	0.1	0.1	0
<i>Building Construction – 2020</i>	43.9	46.5	5.4	4.4	2.7	0.1
<i>Building Construction – 2021</i>	42.5	42.3	4.9	4	2.4	0.1
<i>Building Construction – 2022</i>	40.6	37.7	4.3	3.5	2.1	0.1
<i>Building Construction – 2023</i>	36	31.3	3.6	2.3	1.6	0.1
<i>Building Construction – 2024</i>	16.4	13.6	1.5	0.7	0.6	0
<i>Building Construction – 2025</i>	16.3	12.6	1.4	0.6	0.5	0
<i>Grading – 2020</i>	53.5	84	7.1	6	4	0.1
<i>Grading – 2021</i>	101.8	156.2	13.4	15.1	7.9	0.2
<i>Paving – 2020</i>	30.6	28.2	5.7	1.8	1.5	0
<i>Site Preparation – 2020</i>	22.9	45.6	4.4	14.7	7.1	0
<i>Site Preparation – 2021</i>	22.3	42.5	4.2	14.6	7	0
<i>Significance Threshold</i>	548	137	137	82	65	137
<i>Exceed Threshold?</i>	No	Yes	No	No	No	No

Source: Landrum & Brown, "Air Quality Assessment For: Quail Valley Residential Development – City of Palmdale, March 16, 2018.

Table 4.3-7 – Total Concurrent Construction Emissions						
Daily Emissions (pounds/day)						
<i>Activity</i>	<i>CO</i>	<i>NO_x</i>	<i>VOC</i>	<i>PM₁₀</i>	<i>PM_{2.5}</i>	<i>SO_x</i>
<i>Grading, Site Preparation – 2019</i>	76.4	129.6	11.5	20.7	11.2	0.1
<i>Architectural Coating, Building Construction, Grading, Paving, Site Preparation – 2020</i>	201.3	275.2	91.4	36.1	19.2	0.4
<i>Architectural Coating, Building Construction – 2021</i>	45.2	43.9	61	4.3	2.5	0.1
<i>Architectural Coating, Building Construction – 2022</i>	43.1	39.2	60.5	3.8	2.2	0.1
<i>Building Construction, Architectural Coating – 2023</i>	38.4	32.6	67.6	2.5	1.7	0.1
<i>Building Construction – 2024</i>	16.4	13.6	1.5	0.7	0.6	0
<i>Architectural Coating, Building Construction – 2025</i>	18.2	13.8	10.9	0.7	0.6	0
<i>Significance Threshold</i>	548	137	137	82	65	137
<i>Exceed Threshold?</i>	No	Yes	No	No	No	No

Source: Landrum & Brown, "Air Quality Assessment For: Quail Valley Residential Development – City of Palmdale, March 16, 2018.

Emissions from grading during Project development will exceed the AVAQMD Thresholds of Significance for NO_x in 2020. **Mitigation Measures MM-AQ-1 through MM-AQ-3** specified in **Section 4.3.8 Mitigation Measures** would reduce construction related emissions. However, the Air Quality Assessment

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prepared for the Project states “Mitigation will reduce emissions, but not to the point that they will fall under the AVAQMD’S thresholds. Therefore, construction emissions of NO_x exceed the AVAQMD thresholds even after mitigation [and] short-term construction air quality impacts are significant and unavoidable.”

Threshold AQ-3 Would the Project expose sensitive receptors to substantial pollutant concentrations?

Less Than Significant Impact.

Some people are especially sensitive to air pollution and are given special consideration when evaluating air quality impacts from projects. These groups of people include children, the elderly, individuals with pre-existing respiratory or cardiovascular illness, and athletes and others who engage in frequent exercise. Structures that house these persons or places where they gather to exercise are defined as “sensitive receptors” and are also known to be locations where an individual can remain for 24 hours. Residences, schools, daycare centers, playgrounds, churches, athletic facilities, long-term care facilities, and medical facilities are considered sensitive receptor land uses. The Project site is located adjacent to low-density residential land use and less than one mile to the southeast of a residential housing tract.

The AVQMD identifies in its *Antelope Valley AQMD CEQA and Federal Conformity Guidelines* that specific proposed project types that are within a certain distance from existing or planned sensitive receptors be “evaluated for exposure to substantial pollutant concentrations, including those resulting in a cancer risk greater than or equal to 10 in a million and/or a Hazard Index (HI) (non-cancerous) greater than or equal to 1.”

The project types are the following:

- Any industrial project within 1,000 feet;
- A distribution center (40 or more trucks per day) within 1,000 feet;
- A major transportation project (50,000 or more vehicles per day) within 1,000 feet;
- A dry cleaner using perchloroethylene within 500 feet; and,
- A gasoline dispensing facility within 300 feet.

The Project site does not meet the criteria of project types that are located near sensitive receptor land uses to be evaluated for exposure to substantial pollutants. Therefore, the level of impact of Project development and Project operation would be less than significant.

Threshold AQ-4 Would the Project result in other emissions (such as those leading to odors) affecting a substantial number of people?

Less Than Significant Impact.

Project construction will include activities and machinery typically associated with emitting objectional odors. Potential odor sources associated with the Project may result from construction equipment exhaust and application of asphalt and architectural coatings during construction activities and temporary storage of typical solid waste. Standard requirements would minimize odor impacts from construction. Construction-related odor emissions would be temporary, short-term, and intermittent in nature and would cease upon completion of the respective phase of construction.

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After Project build out, it is expected that Project-generated refuse would be stored in covered containers and removed at regular intervals in compliance with County of Los Angeles solid waste regulations. The Project would also be required to comply with AVAQMD Rule 402 to prevent public nuisances. Therefore, odors associated with Project development and operation would be less than significant and no mitigation is required.

4.3.6 CUMULATIVE IMPACTS

The AQMD has published a report about how to address cumulative impacts from air pollution entitled *White Paper on Potential Control Strategies to Address Cumulative Impacts from Air Pollution*. The AQMD uses the same significance thresholds for project specific and cumulative impacts for all environmental topics analyzed in an Environmental Assessment or EIR.

Projects that exceed the project specific significance thresholds are considered by the AVAQMD to be cumulatively considerable. This is the reason project-specific and cumulative significance thresholds are the same. Conversely, projects that do not exceed the project-specific thresholds are generally not considered to be cumulatively significant.

The Air Quality Impact Assessment prepared for the Project assumes that individual projects that do not generate operational or construction emissions that exceed the AVAQMD's recommended daily thresholds for Project-specific impacts would also not cause a cumulatively considerable increase in emissions for those pollutants for which the Mojave Desert Air Basin is in non-attainment. Individual Project-related construction and operational emissions that exceed AVAQMD thresholds for project-specific impacts would be considered cumulatively considerable.

The Project development would be considered to have a significant adverse air quality impact related to oxides of nitrogen. Project short-term impacts associated with Project grading would result in a Significant and Unavoidable Impact pertaining to the generation of nitrogen oxides in an amount that will exceed the AVAQMD Thresholds of Significance.

Project operational-source air pollutant emissions cumulatively do not have the potential to result in exceedance of regional AVAQMD thresholds and therefore do not result in a cumulatively considerable impact.

Development on the LAFCO-approved non-Quail Valley properties proposed for annexation would require site-specific environmental analysis of potential cumulative impacts pertaining to CEQA-identified Air Quality topics for analysis. Residential development on the Falcon Glen site could result in the construction of 975 single-family dwelling units and 3,510 new residents. The development would yield additional vehicular traffic and concomitant increases in cumulative emissions. The Falcon Glen property area is currently vacant land.

4.3.7 LEVEL OF SIGNIFICANCE BEFORE MITIGATION

Threshold AQ-1	Would the Project conflict with or obstruct implementation of the applicable air quality plan?
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Project operational emissions will be below AVAQMD significance thresholds. Therefore, the Project would result in a less than significant regional air quality impact and no mitigation is required.

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Threshold AQ-2 Would the Project 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?

Project construction would result in a significant impact pertaining to the generation of nitrogen oxides, and mitigation measures will be required.

Threshold AQ-3 Would the Project expose sensitive receptors to substantial pollutant concentrations?

The Project does not meet the criteria of project types that are located near sensitive receptor land uses to be evaluated for exposure to substantial pollutants. Therefore, the level of impact of Project development and Project operation would be less than significant.

Threshold AQ-4 Would the Project result in other emissions (such as those leading to odors) affecting a substantial number of people?

Odors associated with Project development and operation would be less than significant and no mitigation is required.

4.3.8 *MITIGATION MEASURES*

Compliance with City of Palmdale General Plan policies and Standard Conditions would contribute to lessening Project-related impacts to Air Quality. However, the following Mitigation Measures originate from the Air Quality Impact Analysis prepared for Project as described in Appendix A. The development and Project operation and would reduce localized construction emissions to a less than significant level, with the exception of NO_x emissions.

The Air Quality Assessment prepared for the Project stipulates the following Mitigation Measures must be implemented to address Project impacts to Air Quality.

Particulate Emission (PM₁₀) Control

MM-AQ-1 **Comply with AVAQMD Rule 30:** During Project development (grading and construction), the property developer and its contractors shall be required to comply with regional rules (Rule 403) to assist in reducing short-term air pollutant emissions. The following presents best applicable control measures that shall be used to minimize fugitive dust emissions from each fugitive dust source type within the active operation.

Rule 403 requires that “Large Projects” implement additional mitigation. A “Large Project” is defined as “any active operations on property which contains 50 or more acres of disturbed surface area; or any earth-moving operation with a daily earth-moving or throughput volume of 3,850 cubic meters (5,000 cubic yards) for more than three times during the most recent 365-day period. Therefore, the Project is considered a “Large Project” under Rule 403. In addition to the applicable actions specified in the following **Table 4.3-9 (Dust Control Measures for Large Operations)**, as a “Large Project,” the Project and thereby required will be required to implement the following:

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- Submit a fully executed Large Operation Notification to the AVQMD Executive Officer within seven days of qualifying as a large operation;
- Include, as part of the notification, the name(s), address(es), and telephone number(s) of the person(s) responsible for the submittal, and a description of the operation(s), including a map depicting the location of the site;
- Maintain daily records to document the specific dust control actions taken, maintain such records for a period of not less than three years and make such records available to the Executive Officer upon request;
- Install and maintain project signage with project contact signage that meets the minimum standards of the Rule 403 Implementation Handbook, prior to initiating any earthmoving activities;
- Identify a dust control supervisor that is employed by or contracted with the property owner or developer, is on the site or available on-site within 30 minutes during working hours, has the authority to expeditiously employ sufficient dust mitigation measures to ensure compliance with all Rule requirements, and has completed the AQMD Fugitive Dust Control Class and has been issued a valid Certificate of Completion for the class; and,
- Notify the AVAQMD Executive Officer in writing within 30 days after the site no longer qualifies as a large operation.

The following listed items Table 4.3-8 (Required Best Available Control Measures, Rule 403, Table 1)) presents California Air Resources Board (CARB)'s best applicable control measures that shall be used to minimize fugitive dust emissions from each fugitive dust sourced type within the active operation.

- **CARB #24.b – Fugitive Dust. Construction Earthmoving:** b) Prohibits VDE beyond property line and an upwind/downwind PM₁₀ differential of more than 50 µg/m³. Requires implementation of Best Available Control Measures (BACM) for all sources such that visible emissions do not exceed this limit 100 feet from the point of origin of earth-moving activities. List of BACM is contained in the Rule 403 Implementation Handbook. Specifies that a Dust Control Plan or a commitment to implement Table 1 and 2 control measures through a large operation notification (LON) is required for large operations project with a disturbed surface area 100 acres or larger, or projects with daily earth movement of 10,000 cubic yards or more.
- **CARB #25.b – Fugitive Dust. Construction: Demolition:** b) Prohibits VDE beyond property line. Requires application of BACM. Specified that upwind-downwind PM₁₀ levels must not exceed 50 µg/m³. Sets track-out requirements.
- **CARB #26 b – Fugitive Dust. Construction: Grading Operations:** b) Requires water application to increase moisture content to proposed cut, and grading each phase separately to coincide with the construction phase. Specifies that chemical stabilizers are to be applied to graded areas where construction will not begin for more than 60 days after grading.
- **CARB #27 b – Fugitive Dust. Inactive Disturbed Land:** b) Prohibits VDE beyond property line and an upwind/downwind PM₁₀ differential of more than 50 µg/m³. Requires BACM (e.g., chemical stabilization, frequent watering, and revegetation) at all times and high wind measures (e.g., chemical stabilization to maintain a stabilized surface or watering three times per day) under high wind conditions.
- **CARB #28 b – Fugitive Dust. Bulk Materials: Handling/Storage:** b) Prohibits VDE beyond property line and an upwind/downwind PM₁₀ differential of more than 50 µg/m³. Requires use of

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BACM (e.g., wind sheltering, watering, chemical stabilizers, altering load-in/load-out procedures, or coverings).

- **CARB #30 b – Fugitive Dust. Carryout and Track-out:** b) Requires removing any track-out within one hour, or selecting a Table 3 track-out prevention option and removing track-out at the end of the workday, if the track-out is less than 50 feet, and removing track-out as soon as possible, if it exceeds 50 feet. Table 3 track-out options include road surface paved or chemically stabilized from point of intersection with a public paved road to distance of at least 100 feet by 20 feet, or installation of track-out control device from point of intersection with a public paved road to a distance of at least 25 feet by 20 feet.
- **CARB #32 b – Fugitive Dust. Disturbed Open Areas:** b) Applies to non-agricultural areas of one-half acre or larger for residential use, and all non-residential areas. Requires application of chemical stabilizers; watering with sufficient frequency to establish a surface crust, or establishing drought-resistant vegetation as quickly as possible.
- **CARB #38 b – Fugitive Dust. Weed Abatement Activities:** b) Specifies weed abatement activities are subject to standards of Rule 403, unless 1) mowing or cutting is used, instead of discing, and stubble is maintained at least three inches above the soil, or 2) if discing is used, there is a determination of a potential fire hazard. Specifies that after discing, the requirement for taking action on disturbed surface areas applies.
- **CARB #39 – Fugitive Dust. Windblown Dust: Definitions:** Defines windblown dust as any visible emissions from any disturbed surface area which is generated by wind action along. Specifies wind gusts as maximum instantaneous wind speed.
- **CARB #40 – Fugitive Dust. Windblown Dust: Construction/Earth Moving:** Requires, for earthmoving, ceasing all active operations, applying water to soil not more than 15 minutes prior to moving such soil if subject to large operation requirements or if seeking an exemption from property line or upwind/downwind standard. Requires, for unpaved roads at construction sites, applying chemical stabilizers prior to a wind event, applying water twice per hour during active operations, stopping all vehicular traffic if subject to large operation requirements or if seeking an exemption from property line or upwind/downwind standard.
- **CARB #42.a – Fugitive Dust. Bulk Materials/Storage Piles:** a) Requires application of water twice per hour or installation of temporary coverings if subject to large operation requirements or if seeking an exemption from property line or upwind/downwind standard.

Additionally, Rule 403 requires that construction activities “shall not cause or allow PM₁₀ levels [to] exceed 50 micrograms per cubic meter when determined by simultaneous sampling, as the difference between upwind and downwind sample.” Large Projects that cannot meet this performance standard are required to implement applicable actions from Rule 403 that are presented below.

- **Earth-moving (except cutting and filling areas, and mining operations) – (1a)** Maintain soil moisture content at a minimum of 12 percent, as determined by ASTM method D2216, or other equivalent method approved by the Executive Officer, the California Air Resources Board, and the U. S. EPA. Two soil moisture evaluations must be conducted during the first three hours of active operations during a calendar day, and two such evaluations each subsequent four-period of active operations; OR

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- (1a-1) For any earth-moving which is more than 100 feet from all property lines, conduct watering as necessary to prevent visible dust emissions from exceeding 100 feet in length in any direction.
- **Earth-moving: Construction fill areas** – (1b) Maintain soil moisture content at a minimum of 12 percent, as determined by ATM method D2216, or other equivalent method approved by the Executive Officer, the California Air Resources Board, and the U. S. EPA. For areas which have an optimum moisture content for compaction of less than 12 percent, as determined by ASTM Method 1557 or other equivalent method approved by the Executive Officer and the California Air Resources Board and the U. S. EPA, complete the compaction process as expeditiously as possible after achieving at least 70 percent of the optimum soil moisture content. Two soil moisture evaluations must be conducted during the first three hours of active operations during a calendar day, and two such evaluations during each subsequent four-hour period of active operations.
- **Earth-moving: Construction cut areas and mining operations** – (1c) Conduct watering as necessary to prevent visible emissions from extending more than 100 feet beyond the active cut or mining area unless the area is inaccessible to watering vehicles due to slope conditions or other safety factors.
- **Disturbed surface areas (except completed grading areas)** – (2a b) Apply dust suppression in sufficient quantity and frequency to maintain a stabilized surface. Any areas which cannot be stabilized, as evidenced by wind driven fugitive dust must have an application of water at least twice per day to at least 80 percent of the unstabilized area.
- **Disturbed surface areas: Completed grading areas** – (2c) Apply chemical stabilizers within five working days of grading completion, OR
- (2d) Take actions (3a) or (3c) specified for inactive disturbed surface areas
- **Inactive disturbed surface areas** – (3a) Apply water to at least 80 percent of all inactive disturbed surface areas on a daily basis when there is evidence of wind driven fugitive dust, excluding any areas which are inaccessible to watering vehicles due to excessive slope or other safety conditions; OR
- (3b) Apply dust suppressants in sufficient quantity and frequency to maintain a stabilized surface; OR
- (3C) Establish a vegetative ground cover within 21 days after active operations have ceased. Ground cover must be of sufficient density to expose less than 30 percent of unstabilized ground within 90 days of planting, and at all times thereafter; OR
- (3d) Utilize any combination of control actions (3a), (3b), and 3c) such that in total, these actions apply to all inactive disturbed surface areas.
- **Unpaved Roads** – (4a) Water all roads used for any vehicular traffic at least once per every two hours of active operations (3 times per normal 8-hour work day); OR
- (4b) Water all roads used for any vehicular traffic once daily and restrict vehicle speeds to 15 miles per hour; OR
- (4c) Apply a chemical stabilizer to all unpaved road surfaces in sufficient quantity and frequency to maintain a stabilized surface.
- **Open storage piles** – (5a) Apply chemical stabilizers; OR

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- (5b) Apply water to at least 80 percent of the surface area of all open storage piles on a daily basis when there is evidence of wind driven fugitive dust; OR
- (5c) Install temporary coverings; OR
- (5d) Install a three-sided enclosure with walls with no more than 50 percent porosity which extend, at a minimum, to the top of the pile. This option may only be used at aggregate-related plants or at cement manufacturing facilities.
- **All Categories** – (6a) Any other control measures approved by the Executive Officer and the U.S. EPA as equivalent to the methods specified in Table 2 may be used.

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Comply with Contingency Control Measures: The Project shall implement all applicable measures within the **Contingency Control Measures for Large Operations**, regardless of conformance with the Rule 403 performance standard.

Earth-moving – (1A) Cease all active operations; OR
(2A) Apply water to soil not more than 15 minutes prior to moving such soil.

Disturbed Surface Areas – (0B) On the last day of active operations prior to a weekend, holiday, or any other period when active operations will not occur for not more than four consecutive days: apply water with a mixture of chemical stabilizer diluted to not less than 1/20 of the concentration required to maintain a stabilized surface for a period of six months; OR

(1B) Apply chemical stabilizers prior to wind event; OR

(2B) Apply water to all unstabilized disturbed areas 3 times per day. If there is any evidence of wind driven fugitive dust, watering frequency is increased to a minimum of four times per day; OR

(3B) Take the actions specified in Table 2, Item (3C); OR

(4B) Utilize any combination of control actions (1B), (2B), and (3B) such that, in total, these actions apply to all disturbed surface areas.

Unpaved Roads – (1C) Apply chemical stabilizers prior to wind event; OR
(2C) Apply water twice per hour during active operation; OR
(3C) Stop all vehicular traffic.

Open Storage Piles – (1D) Apply water twice per hour; OR
(2D) Install temporary coverings.

Paved Road Track-Out – (1E) Cover all haul vehicles; OR
(2E) Comply with the vehicle freeboard requirements of Section 23114 of the California Vehicle Code for both public and private roads.

All Categories – (1F) Any other control measures approved by the Executive Officer and the U.S. EPA as equivalent to the methods specified in Table 3 may be used.

Further, Rule 403 requires that a project shall not “allow track-out to exceed 25 feet or more in cumulative length from the point of origin from an active operation.” If the project requires track-out from an active operation, it is required to be removed at the conclusion of each workday or evening shift.

Track Out Control Options

- (A) Install a pad consisting of washed gravel (minimum-size one inch) maintained in a clean condition to a depth of at least six inches and extending at least 20 feet wide and 50 feet long.
- (B) Pave the surface extending at least 100 feet and a width of at least 20 feet.
- (C) Utilize a wheel shaker-wheel spreading device consisting of raised dividers (rails, pipe, or grates) at least 24 feet long and 10 feet wide to remove bulk material from tires and vehicle undercarriages before vehicles exit the site.
- (D) Install and utilize a wheel washing system to remove bulk material from tires and vehicle undercarriages before vehicles exit the site.
- (E) Any other control measures approved by the Executive Officer and the U.S. EPA as equivalent to the methods specified items (a) through (D) above.

Construction Equipment Emission Control

The following Mitigation Measure addresses other pollutants generated by construction equipment (due to engine combustion in equipment and employee commuting) that will also exceed AVAQMD thresholds.

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Reduce Construction Equipment Emissions. The following should be included in grading and improvement plans specifications for implementation by contractors:

- Use low emission mobile construction equipment to the extent reasonable available. The property owner/developer shall comply with California Air Resources Board requirements for heavy construction equipment.
- Maintain construction equipment engines by keeping them tuned.
- Use low sulfur fuel for stationary construction equipment.
- Utilize existing power sources (i.e., power poles) when available. This measure would minimize the use of higher polluting gas or diesel generators.
- Configure construction parking to minimize traffic interference.
- Minimize obstruction of through-traffic lanes. Construction should be planned so that lane closures on existing streets are kept to a minimum.
- Schedule construction operations affecting traffic for off-peak hours to the best extent when possible.
- Develop a traffic plan to minimize traffic flow interference from construction activities (the plan may include advance public notice of routing, use of public transportation and satellite parking areas with a shuttle service).

4.3.9 LEVEL OF SIGNIFICANCE AFTER MITIGATION**Short-Term Impacts**

Short-term construction Air Quality impacts are significant and unavoidable. Emissions from grading activities will exceed AVAQMD thresholds of significance for nitrogen oxides in 2020. Mitigation will reduce emissions, but not to the extent that the emissions will be less than AVAQMD thresholds. Therefore, the related Project impact is Significant and Unavoidable.

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Long-Term Impacts

Local and regional air quality impacts are less than significant. No long-term impacts have been identified.

4.4 Biological Resources

The information in this section is derived from the following: City of Palmdale General Plan: “Envision Palmdale 2045” (Palmdale 2045); City of Palmdale Municipal Code Chapter 14.04, Joshua Tree And Native Desert Vegetation Preservation Ordinance; County of Los Angeles General Plan; General Biological Assessment for the 878.1-Acre Project prepared by TeraCor Resource Management dated February 12, 2020 and subsequent update dated October 28, 2023; Habitat Assessment and Focused Burrowing Owl Survey for the 878.1-Acre Quail Valley Project Located Adjacent to the City of Palmdale, Los Angeles County, California prepared by TeraCor Resource Management dated November 9, 2019; California Department of Fish and Wildlife staff report regarding Joshua Trees; and, the Project plans. The General Biological Assessment and the Burrowing Owl Survey reference the following previously-conducted studies and reports prepared over the last approximately 15 years for the Project/Project site. The documents referenced in this document are the Glen Lukos Associates prepared “Report of Updated Rare Plant Surveys” (September 19, 2016), “Jurisdictional Delineation” (August 28, 2017, and “Habitat Assessment Report” (August 28, 2017).

- USCOE Non-jurisdictional Letter, Department of the Army, Los Angeles District, Corps of Engineers, September 29, 2005
- “Biological Technical Report for the 725-Acre Quail Valley Property, City of Palmdale, Los Angeles County, California”, Glenn Lukos Associates, Inc., September 22, 2006
- “Updated Biological Survey Report for the 725-Acre Quail Valley Property, City of Palmdale, Los Angeles County, California”, Glenn Lukos Associates, Inc., June 11, 2008
- “Report of Updated Rare Plant Surveys Conducted for the Approximately 878.1-Quail Valley Project, Palmdale, Los Angeles County, California”, Glenn Lukos Associates, Inc., September 19, 2016
- “Habitat Assessment Report for The Quail Valley Project – Located in the City of Palmdale, Los Angeles County, California”, Glenn Lukos Associates, Inc., August 28, 2017
- “Jurisdictional Delineation Report for the Quail Valley Project, Palmdale, Los Angeles County, California”, Glenn Lukos Associates, August 28, 2017
- “Habitat Assessment and Focused Burrowing Owl Survey for the 878.1-Acre Quail Valley Project Located Adjacent to the City of Palmdale, Los Angeles County, California”, TeraCor Resource Management, November 9, 2019
- “General Biological Assessment for the 878.1-Acre Quail Valley Planned Development Project”, TeraCor Resource Management, February 12, 2020
- Envicom Corporation, "Joshua Tree Report Quail Valley Property, City of Palmdale" August 2023
- "Update to General Biological Assessment for the 878.1-Acre Quail Valley Planned Development Project, 2020 by TeraCor Resource Management" by Mark Hagan, October 28, 2023

- Allen, Aaron (Department of the Army, Los Angeles District, Corps of Engineers), “File No. 2005-01908-AOA (Non-Jurisdictional Letter),” Email to Kris Pinero, June 4, 2024

4.4.1 *ENVIRONMENTAL SETTING*

Site Physiography and Historic Conditions

The Project site is comprised primarily of natural open space. In terms of terrain and relief, the Project site is characterized as a series of secondary and tertiary ridges and intervening arroyos which extend northward from the Sierra Pelona Mountain range to the floor of the Antelope Valley. Contained on-site are various vegetative alliances (i.e., plant communities) which in part reflect the unique desert flora of the Mojave Desert and the San Gabriel Mountains which in part define the southerly boundary of the Mojave Desert. Savannah-like native grasslands occur just above lands generally considered to be desert, which best describes the proposed development area of the Project site and the Antelope Valley generally. Xeric (arid adapted) mid-elevation chaparral and woodland communities occur at higher elevations of the Project site, which are characteristic of the desert side of the San Gabriel Mountains. Elevations across the Project site range from approximately 2,925 feet above mean sea level (msl) near the California Aqueduct to almost 4,500 feet along the proposed open space at the southern edge of the Project site, as shown on **Exhibit 4.4-2 (Topography Map)**.

The General Biological Assessment, prepared by TeraCor (2020), describes the Project site in the following terms: 1) the valley floor (northerly gently rolling terrain; 2) the central valley which contains the main arroyo and ephemeral blue-line drainage alignment running from south to north across the entire Project site; and 3) the westerly, easterly and southerly tributary arroyos that occasionally emit stormflows and all eventually coalesce into the central valley’s main arroyo.

A portion of the Project site is encumbered with utility easements, particularly at the southwest corner, where several major powerlines have been established. An improvised network of primitive dirt roads and trails has been established over many years in a haphazard way across the Project site by unauthorized All-Terrain Vehicle (ATV) use and by persons working on the Project site, such as the bee-keeping facility located in the south-central area of the site. More recently, roads have been graded in upper elevation areas to service the power line towers. ATVs and dirt bikes have created unvegetated, disturbed trails and gathering sites across 19.47 acres of the 878.1-acre property.

In addition, there is some evidence of historic ranching on the property, including historic mapping of a small reservoir site in the central portion of the Project site, although there is no surviving evidence of the historic reservoir. Remnants of livestock fencing remain.

Biological habitat values are generally higher in undisturbed steeper, remote areas of the Project site, and are generally lower in highly disturbed, unvegetated ATV gathering sites and at unauthorized dumping sites.

Three wildfires have occurred on the Project site over the past 20 years, which has had a deleterious effect on at least two habitat types on the Project site, as evident in the loss of a high percentage of Joshua trees and many junipers on-site.

Floral and faunal diversity and habitat integrity is high in higher elevation areas of the Project site and diminished in lower elevational areas due more to fire than human disturbances, as well as the general

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degradation of habitat that has occurred via grazing practices and subsequent weed invasion. A majority of the site supports vegetation still in recovery from persistent wildfire.

Soils

There are few soil variables that can occur across small geographies such as the Project site. The soils listed below in **Table 4.4-1 (Soil Types)** are mostly differentiated based on degree of slope (relief) and geomorphic characteristics, such as whether they have developed into a loam-type of soil or more mineral and a less organic composition due to a high sand or clay content, or due to recency of deposition. Other factors like micro-climate might be considered for relatively mesic (moist) north facing slopes that are less exposed to sun and that support a denser and taller vegetative cover (woodland or chaparral), but those small soil sub-units were not generally mapped at that degree of specificity by government soil surveyors.

All the soils listed in **Table 4.4-1** below occur on slopes that range from a two percent and 50 percent gradient.

Table 4.4-1– Soil Types		
<i>Abbreviated Name</i>	<i>Description</i>	<i>Gradient</i>
<i>GdF</i>	<i>Godde rocky loam</i>	<i>30-50% slopes</i>
<i>GaC</i>	<i>Greenfield sandy loam</i>	<i>2-9% slopes</i>
<i>HbC</i>	<i>Hanford coarse sandy loam</i>	<i>2-9% slopes</i>
<i>HbD</i>	<i>Hanford coarse sandy loam</i>	<i>9-15% slopes</i>
<i>RcC</i>	<i>Ramona coarse sandy loam</i>	<i>5-9% slopes</i>
<i>TsF</i>	<i>Terrace escarpments</i>	<i>Terrace escarpments</i>
<i>VsE</i>	<i>Vista coarse sandy loam</i>	<i>15-30% slopes</i>
<i>VsF</i>	<i>Vista coarse sandy loam</i>	<i>30-50% slopes</i>

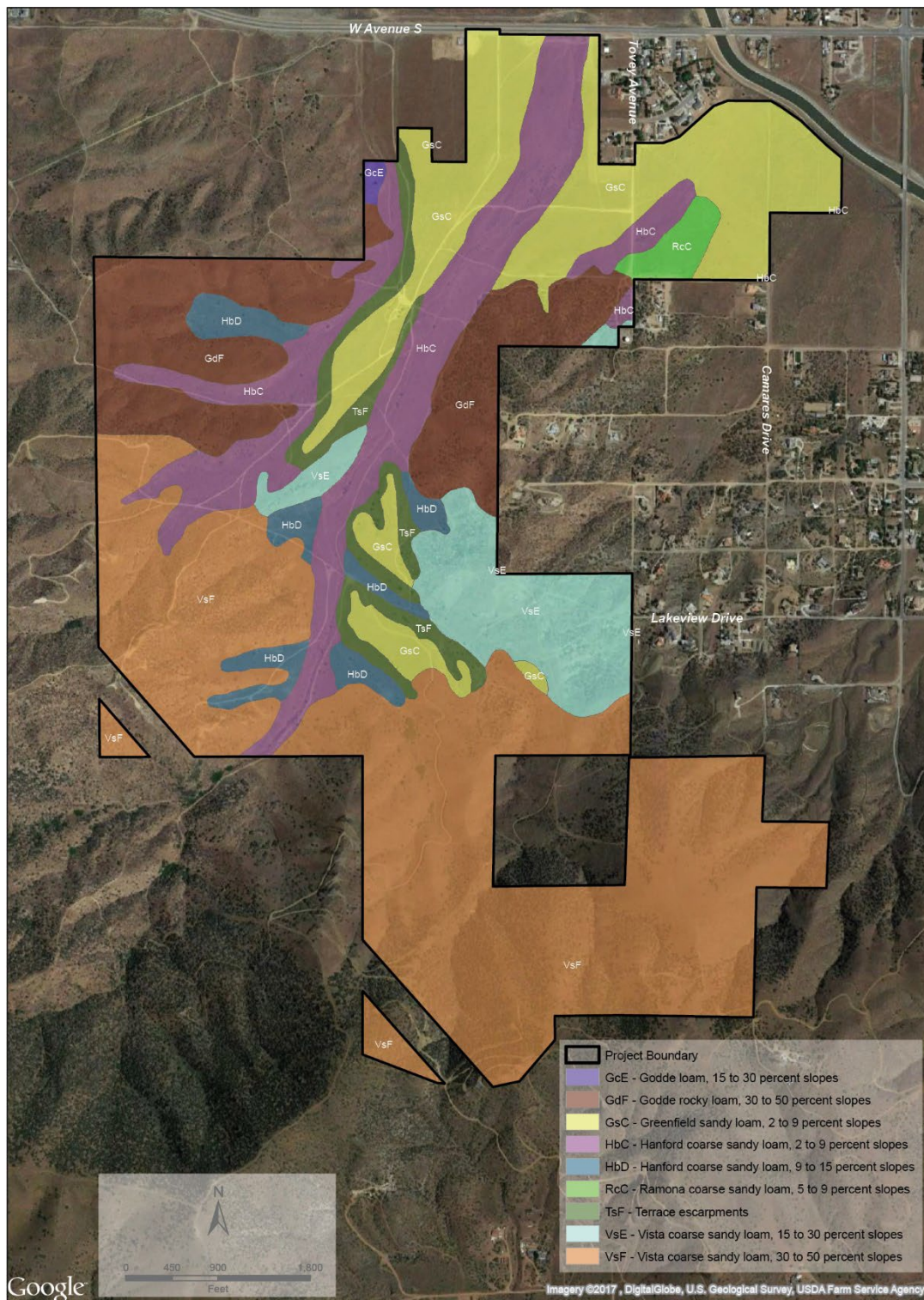
Source: General Biological Assessment for the 878.1-Acre Quail Valley Planned Development Project prepared by TeraCor Resource Management dated February 12, 2020.

In addition to gradient being a relevant consideration with regard to animal occupation, a second aspect is soil structure. Excessively sandy soils are not compressible and cannot maintain structures such as burrows. Clayey soils have characteristics that also limit burrowing or other activities, and can impede drainage that can lead to formations of ponded surface water or pools. Clay soils do not occur on the Project site. Soils on-site are loams that generally support the greatest range of organisms. Refer to **Exhibit 4.4-1 (Soils Map)** for the soil types and their respective locations on the Project site.

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Environmental Impacts – Biological Resources

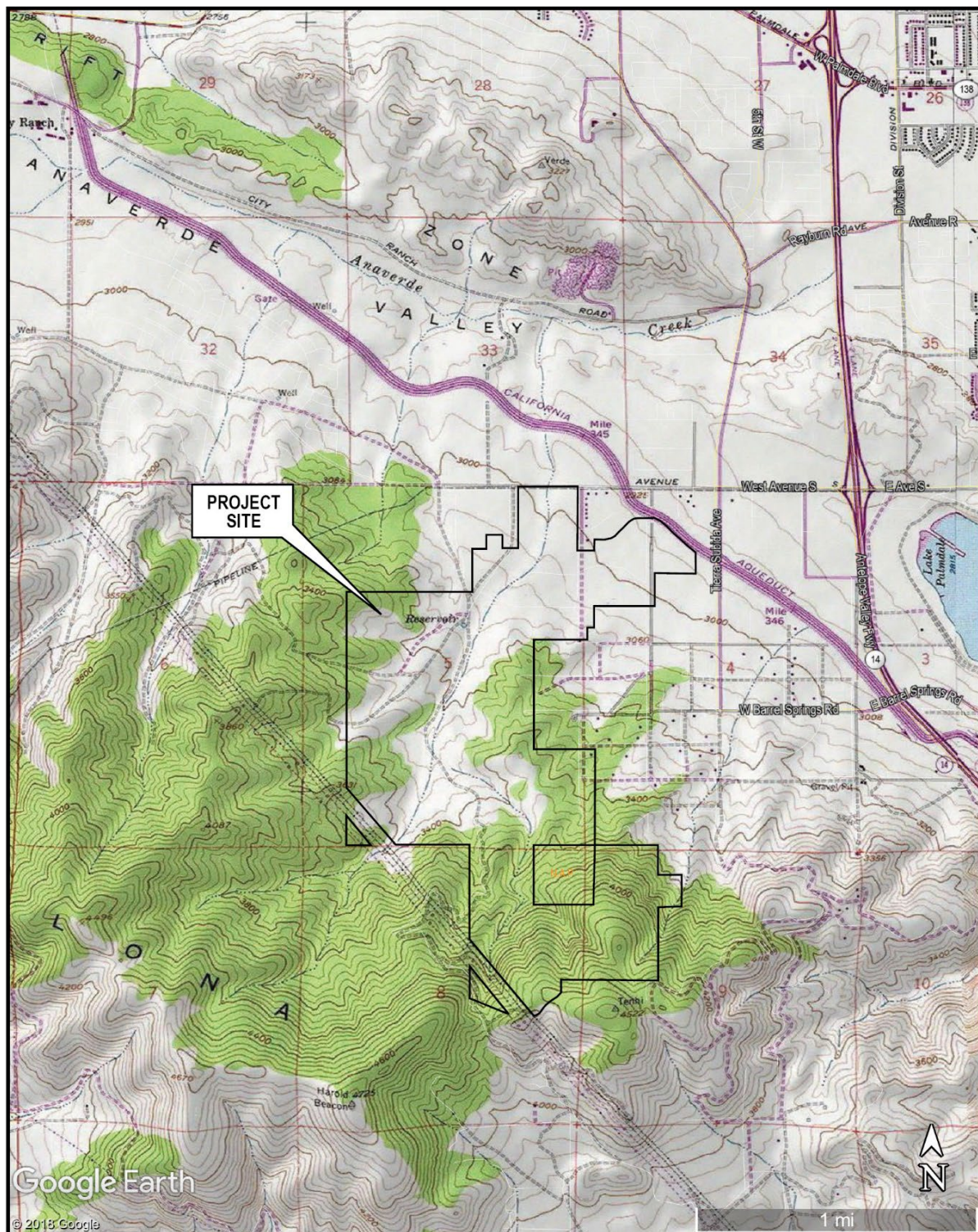
EXHIBIT 4.4-1 – SOILS MAP



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Environmental Impacts – Biological Resources

EXHIBIT 4.4-2 – TOPOGRAPHY MAP



Jurisdictional Delineation for Wetlands, “Waters,” Lakes and Streambeds

Glenn Lukos Associates (GLA) performed two complete delineations in 2005 and updated their determination in 2017, in that since the 2005 Jurisdictional Delineation, more current Supreme Court case law (Solid Waste Agency of Northern Cook County [SWANCC] v. U.S. Army Corps of Engineers [Corps]); SWANCC Decision has been established that made re-evaluation of stream resources on the Project site necessary. Based on this case, the Corps prepared a letter in response to an inquiry submitted by GLA and determined that the Project site is located in an isolated non-navigable stream system that does not have a substantial interstate commerce connection. Therefore, the Corps does not have jurisdiction on-site under the Clean Water Act.

GLA Delineation Methodology

GLA presented technical background information related to whether the Corps, California Regional Water Quality Board (Board) and the California Department of Fish and Wildlife (CDFW) would be likely to assert jurisdiction on the Project site. In their August 28, 2017, Jurisdictional Delineation Report, GLA regulatory specialists reported that they 1) re-examined the Project site and confirmed the absence of Corps-regulated jurisdictional waters or wetlands on the Project site, and 2) determined the limits of (1) Regional Water Quality Control Board (RWQCB) jurisdiction pursuant to the Porter-Cologne Act, and (2) CDFW jurisdiction pursuant to Division 2, Chapter 6, Section 1600 of the Fish and Game Code.

GLA Conclusions

After investigating the entire Project site, GLA concluded that “...four distinct drainage systems (A, B, C, and D) have been identified for the Project site. The drainage systems generally drain from the southwest to the northeast. The Project site contains one large, central swale that does not exhibit an ordinary high-water mark (OHWM), or a discernible bed, bank, and channel, and therefore is not identified as a jurisdictional water. Drainage Systems A, B, and C generally drain towards [sic] the central swale, but as with the central swale, the majority of these drainage systems are made up of swales that themselves also do not exhibit an OHWM. However, as discussed in more detail below, portions of Drainage System A contain several features that do exhibit an OHWM and a discernible streambed, and as such have been identified as jurisdictional. Drainage System D is located in the northeastern portion of the Project site, draining northeast to a culvert extending under the California Aqueduct. Portions of Drainage System D exhibit an OHWM and a discernible streambed, and as such have been identified as jurisdictional.”

The Project site is located within the watershed of the Mojave River, which is an isolated watershed with no connectivity to other waters of the United States including the Pacific Ocean. Therefore, the Corps has no jurisdiction on the Project site. However, designated drainages and drainage features on the Project site do fall under the jurisdiction of the RWQCB and the CDFW.

Regional Water Quality Control Board Jurisdiction

The 2017 Jurisdictional Delineation Report by GLA stated “...the RWQCB may exert its jurisdiction over isolated waters of the State pursuant to the Porter-Cologne Act, and require a waste discharge report (WDR) for the Project. Altogether, the Project site contains approximately 0.60 acre of waters of the State, none of which contain wetlands.” This acreage, along with acres of CDFW jurisdiction discussed in more detail later in this document are shown on the following **Table 4.4-2 (Potential Jurisdictional Drainages)** and summarized as follows:

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Table 4.4-2 – Potential Jurisdictional Drainages				
Drainage System	RWQCB Acres <i>Non-Wetland Waters</i>	CDFW Acres		
		Unvegetated Streambed	Riparian Vegetation	Total CDFW Jurisdiction
<i>A</i>	0.25	0.24	1.42	1.66
<i>B</i>	0	0	0	0
<i>C</i>	0	0	0	0
<i>D</i>	0.35	0.35	0	0.35
<i>Total</i>	0.60	0.59	1.42	2.01

Source: General Biological Assessment for the 878.1-Acre Quail Valley Planned Development Project prepared by TeraCor Resource Management dated February 12, 2020

Drainage System A (~0.25 acre of RWQCB jurisdiction)

None of this acreage contains wetlands. Drainage System A originates off-site, enters the Project site at its southern boundary, and traverses the central portion before terminating within the large central swale on the Project site. This System contains three segments that exhibit an OHWM and therefore may be considered waters of the State. The central segment of Drainage System A receives mostly road runoff that creates a slightly incised drainage that loses its OHWM as it approaches flatter portions of the Project site. The other two segments are remnant features that exhibit minimal indicators of an OHMW. Specific vegetation and their locations on the Project site are provided in more detail in subsequent discussions.

Drainage System B (0.0 acre of potential RWQCB jurisdiction)

Drainage System B is located within the southwestern portion of the Project site and extends to the northeast before terminating within the large central swale on the Project site. Segments within Drainage System B do not exhibit an OHWM and therefore were not identified as potential RWQCB jurisdiction.

Drainage System C (0.0 acre of potential RWQCB jurisdiction)

Drainage System C is located within the northwestern portion of the Project site and extends to the east before terminating on-site. Segments within Drainage System C do not exhibit an OHWM and therefore were not identified as potential RWQCB jurisdiction.

Drainage System D (~0.35 acre of RWQCB jurisdiction)

Drainage System D contains no wetlands and is generally unvegetated. This Drainage System consists of two main systems that are supported by runoff collected in paved and dirt roads associated with residential areas to the south.

California Department of Fish and Wildlife Jurisdiction

California Department of Fish and Wildlife jurisdiction on the Project site totals approximately two acres. The jurisdiction is associated with Drainage Systems A and D in that segments of these Drainage Systems exhibit indicators that water flows at least periodically through a bed or channel having banks.

CDFW jurisdiction is associated with approximately 1.66 acres in Drainage System A, of which approximately 0.24 acre is unvegetated streambed and approximately 1.42 acres consist of riparian

vegetation. Approximately 0.35 acre of CDFW jurisdiction is associated with Drainage System D, none of which supports riparian vegetation, as it is generally unvegetated.

4.4.2 METHODOLOGY

TeraCor used an array of field (on-site) and off-site research methodologies to assess and evaluate the different types of biological resources present or potentially present on the Project site. These methodologies included the following:

- Literature Review – Vascular Vegetation and Vegetation Community Occurrences;
- Literature Review – Animal Occurrences;
- State of California *Natural Diversity Data Base* (CNDDDB) Query for Flora, Fauna and Plant Communities with Special Regulatory Designations – the CNDDDB contains historical records of faunal species occurrence;
- California Native Plant Society (CNPS) publications – the CNPS is a Statewide non-profit organization dedicated to the preservation of native flora. Their *California Native Plant Society's Inventory of Rare and Endangered Plants of California* (2001) includes information about distribution, ecology, rarity, and legal status of more than 2,000 rare plants that occur in California. The inventory is updated and maintained on a regular basis on the *Inventory of Rare and Endangered Plants Online Database* (2019);
- Federal and State Protected Species (Endangered, Threatened, Candidate and Others);
- General Field Investigations and Assessment – TeraCor staff conducted general and focused fieldwork during 35 visits to the Project site between April 4, 2019 and October 5, 2019; and,
- Biogeographic Theory/Scientific Publications (Corridors, Movement Pathways, Genetic Flow).

TeraCor's assessment methodologies are described in more detail to provide background information about sources and references, survey methods and protocols as applicable, and overall approach in identifying resources and assessing impacts that could result to those resources with implementation of the proposed Project. Both State and Federal resource agencies have, in some instances, adopted survey protocols and/or assessment guidance, and those protocols and procedures were followed as applicable to attain the requisite level of confidence for each specific study or assessment methodology. Additional detail is provided in the General Biological Assessment for the approximately 878.1-acre Quail Valley Planned Development Project prepared by TeraCor Resource Management dated February 12, 2020 and the subsequent update prepared by Mark Hagan, dated October 28, 2023.

LITERATURE REVIEW

Vascular Vegetation and Vegetation Community Occurrences

Literature reviewed by TeraCor from which plant names and identifications, vegetation communities and associations, and relevant descriptions were derived include: *The Jepson Manual, Vascular Plants of California – Second Edition* (Baldwin et.al, 2012), *Preliminary Descriptions of the Terrestrial Natural Communities of California* Holland 1986), *A Manual of California Vegetation – Second Edition* (Sawyer, Keeler-Wolf and Evens 2009), and *California Natural Community List*, CDFW, 2018 (CNCL”).

Animal Occurrences

TeraCor's literature review included a query of the California Natural Diversity Data Base (CNDDB), which is a computerized inventory of information on the location of California's rare, threatened, endangered, and otherwise regulatory status plants, animals, and natural communities. Information regarding the species occurrence, population numbers, observers, occurrence dates and potential threats to the organism(s) are included for each occurrence record. TeraCor queried the *Ritter Ridge* and *Palmdale, California* Quadrangles and surrounding quadrangles in the CNDDB for local records of regulatory status organisms and habitats.

Historical records of faunal species occurrence are found not only in the CNDDB records, but also in other well-known publications including Schoenherr, 1992; Hall, 1981; Garrett and Dunn, 1981; Small 1994; Williams 1986; and, Thelander, et al., 1994, which also were reviewed by TeraCor.

With regard to determining the presence of some organisms, the General Biological Assessment is, in part, habitat-based and predictive, particularly for nocturnal, secretive vertebrates with complex life histories that are not easily apparent to investigators. The evaluation for presence for regulatory status organisms included such variables as availability of support resources (such as rock outcrops, surface water, specific host plants, nesting sites, etc.), location and size of the Project site, extent of contiguous habitat, and history of persistent disturbances, including fire. The likelihood of potential occurrences is further predicated on the known distributions of species, and their overall habitat requirements and preferences.

Presence, Absence and/or Probability of Occurrence

TeraCor based its predictive analysis on the known distribution or range of each species, including elevation, disturbance levels on the Project site, history of disturbance, and remnant site resources. An "occurrence probability rating" was designated for each species based on the previously described factors. Species occurrence has been: 1) Confirmed Present, 2) determined Not Present, or 3) potential presence determined to be one of the following:

Low - The subject property is within the historic range or distribution of the species. Habitat on-site is marginal to suitable, but other conditions may exist (adjacent urbanization, isolation, etc.) to suggest a low probability of occurrence. Transitory presence is not necessarily precluded, but site conditions are such that sustained or seasonal presence is unlikely.

Moderate - The subject property is within the historic range or distribution of the species. The species has a reasonable possibility of occurrence on-site, habitats are suitable, and the species is known to occur in the area. Some areas of habitat may be slightly altered or degraded from original condition but overall conditions are such that sustained or seasonal presence is possible.

High - The subject property is within the historic range or distribution of the species. The subject property contains suitable to very favorable habitat for the species. The organism has recently been recorded in the vicinity, or ecological conditions are such that qualified personnel can reasonably anticipate presence.

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Queries for Plant Communities and Flora with Special Regulatory Designations

Numerous efforts have been made over the years to catalog and classify California's diverse array of landscape types and plant communities. Twentieth century Statewide efforts were undertaken with varying levels of specificity by Clements (1916, 1920, 1928), Wieslander (1928-1940), Cheatham and Haller (1975) and many others. IN 1986, R. Holland, CDFW, established the *Preliminary Descriptions of the Terrestrial Natural Communities of California*. His inventory of community types was widely used but was eventually replaced by CDFW in favor of more a systematic floristic approach to classifications. The partnership between the CDFW and the California Native Plant Society (CNPS) the *California Natural Community List* (2018), which when used in conjunction with Sawyer Keeler-Wolf's *A Manual of California Vegetation*, results in a reasonably applicable and understandable system along with rarity and sensitivity rankings.

California Native Plant Society

The CNPS is a statewide, non-profit organization dedicated to the preservation of native flora. The *California Native Plant Society's Inventory of Rare and Endangered Plants of California* (2001) includes information regarding the distribution, ecology, rarity, and legal status of over 2,000 rare plants, which occur in California. The inventory has been updated and is maintained on a regular basis on the *Inventory of Rare and Endangered Plants Online Database* (2019).

The CNPS regulatory status designation consists of two parts. The first portion of the designation is the rarity code and the second is the threat code. For example, a plant designated as a *Rare Plant Rank 1B.1* is considered rare, threatened, or endangered in California and elsewhere, and is seriously endangered in California (over 80% of occurrences threatened/high degree and immediacy of threat). A description of the rarity and threat code designations is presented below.

The CNPS codes presented for regulatory status flora below include the following:

- Rare Plant Rank 1A: Presumed Extirpated in CA; Rare or Extinct elsewhere
- Rare Plant Rank 1B: Rare, Threatened, or Endangered in CA and elsewhere
- Rare Plant Rank 2A: Presumed Extirpated in CA, but common elsewhere
- Rare Plant Rank 2B: Rare, Threatened, or Endangered in CA but more common elsewhere
- Rare Plant Rank 3: Plants about which more information is needed - a review list
- Rare Plant Rank 4: Plants of Limited Distribution - a watch list

The Threat Code is as follows:

- .1 Seriously threatened in California (over 80 percent of occurrences threatened/high degree and immediacy of threat).
- .2 Moderately threatened in California (20 - 80 percent of occurrences threatened/moderate degree and immediacy of threat).
- .3 Not very threatened in California (less than 20 percent of occurrences threatened/low degree and immediacy of threat or no current threats known).

Individual regulatory status plant species descriptions have been provided in **Table 4.4-9 (Regulatory Status/CNPS-Listed Plants)**. These species descriptions are based on plant information provided in the

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Jepson Manual, as well as the *CNPS Online Inventory*. Species information from these two sources, such as elevational ranges or blooming periods of regulatory status plant species, is not always consistent. Because the regulatory status plant species listed in **Table 4.4-9** are CNPS-ranked, and the CNPS generally provides broader descriptive information relative to distribution, the species information as summarized in the *CNPS Online Inventory* has generally been presented in this analysis. Onsite investigations conducted from April into October 2019 demonstrated which of the potentially-occurring sensitive flora actually were detectable on the Project site.

FIELD INVESTIGATIONS

General and focused Fieldwork by TeraCor was conducted on foot, on 35 separate days. Plants were identified both in the field and in the lab. Reptile species were surveyed by turning debris, and scanning sunning and foraging areas. Amphibians were not observed, but common amphibians such as western toad (*Bufo boreas*) and Pacific tree frog (*Hyla*, or *Pseudacris regilla*) are expected to occur on-site. Nomenclature follows Stebbins (Stebbins/McGinnis 2018), and was updated supplemented with The Center for North American Herpetology website. Bird species were identified by field personnel both aurally and visually, with nomenclature following Dunn (7th edition, 2017), Sibley (2nd edition, 2017) and updated utilizing the American Ornithologists Union checklist. Mammals were identified initially by sight or sign evidence.

With regard to determining the presence of some organisms, the TeraCor assessment was, in part, habitat-based and predictive, particularly for nocturnal, secretive vertebrates with complex life histories that are not easily apparent to investigators. The evaluation for presence for regulatory status organisms (for example, considered rare or given regulatory status by the USFWS, CDFW, CNPS, or the CNDDDB) included such variables as availability of support resources (such as rock outcrops, surface water, specific host plants, nesting sites, etc.), the location and size of the subject property, extent of contiguous habitat, and the history of persistent disturbances, including fire. The likelihood of potential occurrences is further predicated on the known distributions of species, and their overall habitat requirements and preferences.

4.4.3 REGULATORY FRAMEWORK

The following policies and regulations potentially apply to the biological resources associated with, or potentially occurring on, the project site. Impacts that would conflict with these policies and regulations could be considered a significant effect on the environment based on Appendix G of the *CEQA Guidelines*.

Federal Regulations

Federal Endangered Species Act (FESA)

The federal Endangered Species Act of 1973 (“FESA”) defines an endangered species as “any species which is in danger of extinction throughout all or a significant portion of its range...” and a threatened species as “any species which is likely to become an endangered species in the foreseeable future throughout all or significant portions of its range...”

Section 9 of the FESA prohibits the “take” of federally listed Threatened and Endangered species. The FESA defines “take” as any action that would harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect any Threatened or Endangered species. No federally listed Threatened or Endangered species have been observed on the project site, and none are expected to occur on the site. Therefore, project is not subject to the FESA.

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Clean Water Act

The Clean Water Act (CWA) establishes the basic structure for regulating discharges of pollutants into the waters of the United States and regulating quality standards for surface waters no jurisdictional wetlands occur on the project site, and the project is not subject to the federal CWA.

Migratory Bird Treaty Act

The Migratory Bird Treaty Act (MBTA) was implemented to establish the United States' commitment to protect migratory birds. The proposed project would be subject to the requirements of the MBTA. This regulation protects all migratory birds and their nests and makes it unlawful to “take” unless permitted by regulations. The MBTA provides that it is unlawful to pursue, hunt, take, capture or kill, attempt to take, capture, or kill, possess, offer to or sell, barter, purchase, deliver or cause to be shipped, exported, imported, transported, carried or received any migratory bird, part, nest, egg or product, manufactured or not. Subject to limitations in the Act, the Secretary of the Interior may adopt regulations determining the extent to which, if at all, hunting, taking, capturing, killing, possessing, selling purchasing, shipping, transporting or exporting of any migratory bird, part, nest or egg will be allowed, having regard for temperature zone, distribution, abundance, economic value, breeding habits and migratory flight patterns.

California State Regulations

California Endangered Species Act

The California Endangered Species Act (CESA) defines an endangered species as “a native species or subspecies of a bird, mammal, fish, amphibian, reptile, or plant which is in serious danger of becoming extinct throughout all, or a significant portion, of its range due to one or more causes, including loss of habitat, change in habitat, overexploitation, predation, competition, or disease.”

CESA defines a threatened species as “a native species or subspecies of a bird, mammal, fish, amphibian, reptile, or plant that, although not presently threatened with extinction, is likely to become an endangered species in the foreseeable future in the absence of the special protection and management efforts required by this chapter. Any animal determined by the Fish and Game Commission as rare on or before January 1, 1985 is a threatened species.”

Section 2080 of the California Fish and Game Code prohibits the take of state listed Threatened and Endangered species. The CESA defines “take” as any action that would harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or attempt to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect any Threatened or Endangered species. If a proposed project may result in take of a listed species, a permit pursuant to Section 2080 of the Fish and Game Code is required from the CDFW.

California Fish and Game Code (Sections 3503 and 3513)

The proposed project would also be subject to the requirements of Sections 3503, 3503.5 and 3513 of the California Fish and Game Code. These regulations protect all native birds and their nests and make it unlawful to take (e.g., pursue, kill, harm, harass) any migratory bird, bird of prey, and their active nests.

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California Fish and Game Code (Section 1602)

Streambeds are potentially subject to regulation by the CDFW under Section 1602 of the California Fish and Game Code. A stream is defined under these regulations as a body of water that flows at least periodically through a bed or channel having banks and that support fish or other aquatic life. This definition includes watercourses having a surface or subsurface flow that supports or has supported riparian vegetation. CDFW generally asserts its jurisdiction to the edge of the riparian vegetation canopy associated with any stream. Any work within a streambed or the removal of associated riparian vegetation requires the acquisition of a Streambed Alteration Agreement from the CDFW. As previously mentioned, the project site contains approximately 2.01 acres of CDFW jurisdictional drainages, of which approximately 1.42 acres consist of vegetated riparian habitat.

State of California Protection and Classifications

California regulatory status species listings are as follows:

State listed as Endangered	= SE
State listed as Threatened	= ST
State Candidate for Endangered	= SCE
State Candidate for Threatened	= SCT
State listed as Rare (plants only)	= SR
State Fully Protected	= SFP
State Species of Special Concern	= SSC
State Delisted as Endangered or Threatened	= SDL

Other State classifications are:

State Special Animal	= SSA
State Watch List Bird Species	= SWL

State of California Endangered Species (SE)

CESA defines an endangered species as a “native species or subspecies of a bird, mammal, fish, amphibian, reptile, or plant which is in serious danger of becoming extinct throughout all, or a significant portion, of its range due to one or more causes, including loss of habitat, change in habitat, overexploitation, predation, competition, or disease.”

State of California Threatened Species (ST)

Threatened species are defined as “a native species or subspecies of a bird, mammal, fish, amphibian, reptile, or plant that, although not presently threatened with extinction, is likely to become an endangered species in the foreseeable future in the absence of the special protection and management efforts required by this chapter. Any animal determined by the commission as rare on or before January 1, 1985 is a threatened species.”

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State of California Candidate Species (SCE and SCT)

Candidate species are defined as “a native species or subspecies of a bird, mammal, fish, amphibian, reptile, or plant that the Fish and Game Commission has formally noticed as being under review by the Fish and Wildlife Department for addition to either the list of endangered species or the list of threatened species, or a species for which the commission has published a notice of proposed regulation to add the species to either list.”

CDFW offices and representatives generally afford Candidate species temporary protection, as though that species was already listed as threatened or endangered. This practice is allowed at the discretion of the Fish and Game Commission.

State of California Rare Species (SR)

Fish and Game Code §1901 defines a rare plant species as “...although not presently threatened with extinction, the species, subspecies, or variety is found in such small numbers throughout its range that it may be endangered if its environment worsens.”

State of California Fully Protected Species (SFP)

The state defines a “Fully Protected” species as “The classification of Fully Protected was the State’s initial effort in the 1960’s to identify and provide additional protection to those animals that were rare or faced possible extinction. Lists were created for fish, amphibians and reptiles, birds and mammals. Please note that many Fully Protected species have also been listed as Threatened or Endangered species under the more recent endangered species laws and regulations.”

The California Fish and Game Code sections dealing with Fully Protected species state that these species “.... may not be taken or possessed at any time and no provision of this code or any other law shall be construed to authorize the issuance of permits or licenses to take any fully protected species...”, although take may be authorized for necessary scientific research. This language arguably makes the “Fully Protected” designation the strongest and most restrictive regarding the “take” of these species. In 2003 the code sections dealing with Fully Protected species were amended to allow CDFW to authorize take resulting from recovery activities for state-listed species.

State of California Species of Special Concern (SSC)

The State of California defines a Species of Special Concern (SSC) as “a species, subspecies, or distinct population of an animal native to California that currently satisfies one or more of the following (not necessarily mutually exclusive) criteria:

- a) is extirpated from the State or, in the case of birds, in its primary seasonal or breeding role;
- b) is listed as Federally-, but not State-, threatened or endangered; meets the State definition of threatened or endangered but has not formally been listed;
- c) is experiencing, or formerly experienced, serious (noncyclical) population declines or range retractions (not reversed) that, if continued or resumed, could qualify it for State threatened or endangered status; and,

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- d) has naturally small populations exhibiting high susceptibility to risk from any factor(s); that if realized, could lead to declines that would qualify it for State threatened or endangered status.”

State of California “Special Animal” (SSA)

The State of California defines a “Special Animal” as follows: “... a general term that refers to all of the taxa the CNDDDB is interested in tracking, regardless of their legal or protection status. This list is also referred to as the list of “species at risk” or “special status species”. The CDFW considers the taxa on this list to be those of greatest conservation need.”

Any species included in the CNDDDB is considered a Special Animal, and in addition to a Species of Special Concern (SSC), the CNDDDB Special Animals List includes species that lack state or federal status, but have been listed by various other state or federal agencies or by various conservation organizations.

State of California “Watch List” Bird Species (SWL)

The CDFW has recently created a new designation for bird species; a “watch list” species. A “watch list” species is defined by CDFW as “a new category of “Taxa to Watch” [that] was created in the new California Bird Species of Special Concern report. The birds on this watch list are 1) not on the current Special Concern list but were on previous lists and they have not been state listed under CESA; 2) were previously state or federally listed and now are on neither list; or 3) are on the list of ‘fully protected’ species.”

Joshua Tree Legislation

On June 27, 2023, the California Legislature passed the “Western Joshua Tree Conservation Act.” This legislation permanently protects this species by providing the trees with protections comparable to those they would receive under the California Endangered Species Act, but with additional permitting mechanisms to address renewable energy and housing projects in their range. The law also requires the California Department of Fish and Wildlife to prepare a conservation plan for the trees by end of year 2024. Provisions of the Western Joshua Tree Conservation Act include the following:

- Prohibiting unpermitted killing or removal of the trees;
- Requiring a conservation plan for the species;
- Creating a fund to acquire and manage lands to protect the species;
- Creating a permitting regime expected to be faster and cheaper than the State Endangered Species Act;
- Requiring regular reviews of the species’ status and the effectiveness of the permitting regime and conservation plan; and,
- Requiring consultation with California Native American Tribes on the law’s implementation.

Local Regulations

City of Palmdale General Plan (Palmdale 2045)

Palmdale 2045 developed goals, policies, and specific actions that provide specific measures regarding the protection of significant ecological resources and ecosystems, including, but not limited to, sensitive flora and fauna habitat areas. A General Plan Consistency Assessment of the following Palmdale 2045 Goals

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and Policies relevant to the Biological Resources analysis is contained in **Appendix A** of this EIR.

Equitable and Healthy Communities Element

Policy EHC-12.1: **Tree Planting.** Plant street trees, identified within the City’s plant palette, throughout Palmdale, and especially in disadvantaged communities. Plant trees to provide shade and screening, especially along south and west facing sides of buildings.

Conservation Element

Goal CON-1: **Protect Significant Ecological Areas in and around the City, including, but not limited to, sensitive flora and fauna habitat areas.**

Policy CON-1.1: **Endangered Species.** Ensure local compliance with the California Endangered Species Act and the Federal Endangered Species Act (ESA).

Policy CON-1.2: **Joshua and Juniper Trees.** Continue enforcing the City’s Native Vegetation Ordinance to protect western Joshua trees and Juniper trees.

Policy CON-1.3: **West Mojave Plan.** Comply with the required implementation of the West Mojave Plan for protection of desert tortoise and Mohave ground squirrel.

Policy CON-1.4: **Significant Ecological Areas.** Identify and preserve to the greatest extent feasible significant ecological areas (SEAs) as shown in Figure 11.3. Areas to consider for open space preservation include, but are not limited to, Tejon Park, Barrel Springs Southern Trailhead, and the Una Lake area.

Policy CON-1.5: **Preserve Ecological Resource Areas.** Preserve natural drainage courses and riparian areas where ecological resources exist in significant concentration.

Policy CON-6.2: **Reduce Landscaping Irrigation Needs.** Require the use of water conserving native or drought resistant plants and drip irrigation systems where feasible.

Policy CON-9.3: **Locally Appropriate Landscape Design.** Preserve the natural heritage of the region through landscape design by ensuring the local stock of native trees and vegetation is replenished and protected.

Sustainability, Climate Action, and Resilience Element

Policy SCR-6.3: **Low-Water Use Plant List.** Implement the City’s landscape plant list and use of low-water plants in new or renovated landscaped areas.

Policy SCR-7.1: **Tree Planting in Public Spaces.** Plant additional trees on streets, parks, and other public spaces to sequester carbon, provide shade, contribute to stormwater management, provide habitat, and enhance community

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character.

Policy SCR-7.2:

Preferred Tree and Plant List. Establish a preferred tree list of species appropriate for the urban forest which are more resilient to drought, heat, and pests. Prioritize native plants and pollinator-friendly plants.

Policy SCR-7.3:

Tree Planting on Private Property. Adopt a tree preservation ordinance to encourage tree preservation and additional planting on private property as appropriate.

City of Palmdale Municipal Code

Chapter 14.04 Joshua Tree and Native Desert Vegetation Preservation Ordinance

The City of Palmdale Joshua Tree and Native Desert Vegetation Preservation Ordinance is codified in the City Municipal Code Chapter 14.04. The Ordinance has as its intent “...to protect and preserve desert vegetation. . . so as to retain the unique natural desert aesthetics in some areas of ...[Palmdale], and to promote the general welfare of the community.” The Ordinance also states that “although it may not be feasible, practicable, or in the public interest to preserve all healthy desert vegetation regulated under this chapter due to reasonable planning, developmental or property rights considerations, the design of development projects should strive to protect and maintain the most desirable and significant of the healthy desert vegetation in a manner consistent with the City general plan and the California Environmental Quality Act.” The Ordinance provides that desert vegetation shall not be removed from any parcel of land, except as provided for in Section 14.04.090 (Exceptions to Provisions). Any removal requires a Native Desert Vegetation Removal Permit issued by the City Landscape Architect or by the Director of Public Works’ designee. However, the Ordinance also includes detailed Desert Vegetation Preservation Plan Requirements, Desert Vegetation Preservation Criteria, and Maintenance Requirements.

4.4.4 *VEGETATION AND PLANT COMMUNITIES*

Geographically, the Project site is located at the boundary between the California floristic Province Southwestern California Region (San Gabriel Subregion) and the Mojave Desert Region. The regional distinctions provided for regional subunits can be obscured at the interfaces between these areas. The Project site contains vegetation and vegetation types found both in the Mojave Desert and the mid-Transverse Ranges.

A plant list was prepared previously for the Project site by Glenn Lukos Associates (GLA) and was reviewed by TeraCor Resource Management. Scientific nomenclature generally followed *The Jepson Manual, Vascular Plants of California – Second Edition*, 2012, (Jepson) as updated in the Jepson Online Interchange for California Floristics database (2014).

The Project site is comprised of secondary and tertiary ridges associated with the north side of the Sierra Pelona. These ridges extend northward to the floor of the Antelope Valley. Floristically, the property correlates to the vegetation described for the Liebre Mountains. The Liebre Mountains have been investigated and described as a discernably distinct floristic subunit of the San Gabriels (Boyd, 1999).

Affecting the Project site, the short spacing between three different wildfires over the last 20 years may have resulted in a delayed transition period between the burn and the recovery of the property. The

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frequency of fire events appears to have negatively affected the diversity of community structures across the Project site. The property has been under biological assessment multiple times by GLA since 2006, and recently by TeraCor in 2019. The changes to the communities on-site have been well-documented; therefore, these fires appear to have resulted in a reduction of woodland and chaparral associated communities and an increase in annual non-native grassland and sparse scrub type plant associations.

The plant series identification was completed in general conformance with *A Manual of California Vegetation* and CDFW's corresponding and community mapping individual vegetation landscape types that comprise the approximately 878.1-acre Project site, as well as their respective California Natural Community Codes ("CaCodes") as provided in more detail in the General Biological Assessment for the 878.1-acre Quail Valley Planned Development Project prepared by TeraCor Resource Management dated February 12, 2020. The California Natural Community List (CNCL) provides State and global "rarity" and "sensitivity" rankings for some alliances and associations; S1 being the rarest and S3 the least rare. Sensitivity is simply indicated as "Yes" or nothing. These rankings were additionally considered in the result. Again, more detailed analysis is contained in the TeraCor document referenced above.

For purposes of this analysis, all vegetative alliances (communities) were classified as belonging to one of four habitat structures: Woodland/Chaparral; Scrub; Riparian Scrub; and, Grassland. These vegetative structures correlate with plant communities as shown in **Table 4.4-3 (Vegetation Community Acreages)**.

The following **Table 4.4-3 (Vegetation Community Acreages)** lists the Project's vegetation communities, respective vegetative structure, respective acreages outside the proposed development area, within the proposed development area, and total acreages.

Woodland and Chaparral

GLA noted in their years of studying the Project site that woodland/chaparral areas have become substantially diminished on the property due to the frequency and intensity of fire. TeraCor recognized that charred remains of junipers and Joshua trees are common on-site, and that natural replacement was very limited and, in some areas, had not occurred at all. Some arroyos and watershed sub-units on-site contain ephemeral streams. Storm-water flow in these streams appeared to be minimal in the recent past and probably infrequent so that dense chaparral and wooded areas did not appear to be associated with surface waters on the Project site. Woodland and chaparral areas mapped on the Project site generally were not stream-associated.

When mature and undisturbed, relatively dense chaparral woodlands establish a sustainable microclimate. Certain plant and wildlife species find refuge and shelter from temperature extremes and moisture deficits, as compared to adjacent scrub, grassland and desert scrub communities. The combination of the relatively high canopy, higher amount of overall biomass, deeper organic soil, shade, soil moisture and downed wood, provides a unique and stable habitat for a range of mammal, reptile, amphibian, avian and invertebrate species.

The following species currently exist on the Project site and their respective locations are shown on **Exhibit 4.4-3 (Vegetation Communities)**:

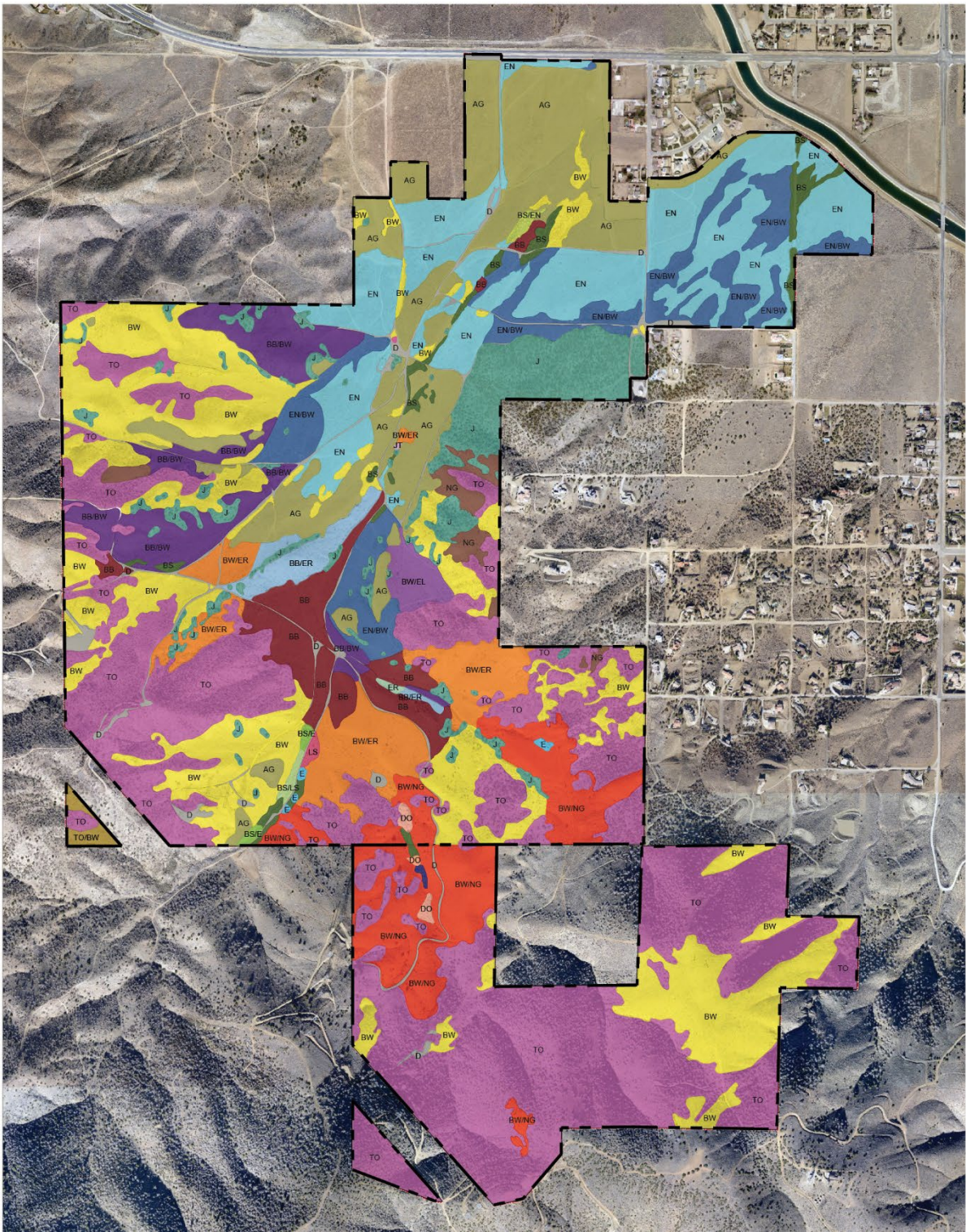
- *Tucker Oak Chaparral* – This is a slow-growing evergreen shrub that grows up to 18 feet in height; however, on the Project site this species usually grows to heights of six to eight feet, with larger tree-like individuals found generally on north-facing slopes or in secluded areas at the tops of arroyos. When co-dominant with California juniper, it occurs on much of the Project site on north

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and east-facing hillsides and on broad, northerly-oriented ridgelines and in ravines with locally-induced higher soil moisture. Although not necessarily considered rare, the CNCL has assigned rarity rankings to several associations of Tucker oak chaparral, though these associations were not identified as habitat on the Project site. TeraCor mapped approximately 265 acres of Tucker oak chaparral on the project site. Project development will affect approximately 30 acres of Tucker oak chaparral, with approximately 25 acres removed and approximately 4 potentially thinned for fuel modification, but would remain in place.

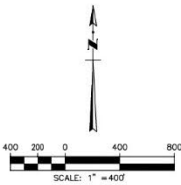
- *California Juniper Woodland* – Fires on the Project site have removed this community from much of the Project site. It is not itself considered rare or sensitive. TeraCor mapped approximately 44 acres of Juniper woodland on the Project site. Most junipers on-site occur routinely as a component of Tucker oak chaparral, and approximately 33 acres would be affected by project development.

EXHIBIT 4.4-3 – VEGETATION COMMUNITIES



LEGEND

- PROJECT BOUNDARY LINE
- TUCKER OAK CHAPARRAL [TO] (262.93 AC)
- JUNIPER WOODLAND [J] (43.94 AC)
- JOSHUA TREE WOODLAND [JT] (0.07 AC)
- CALIFORNIA BUCKWHEAT SCRUB [BW] (144.64 AC)
- BRITTLEBUSH SCRUB [BB] (25.32 AC)
- RUBBER RABBITBRUSH [EN] (91.16 AC)
- NARROWLEAF GOLDENBUSH SCRUB [EL] (0.04 AC)
- ERICAMERIA BLENDED SERIES [ER] (0.35 AC)
- BIG SAGEBRUSH SCRUB [BS] (8.61 AC)
- SCALEBROOM SCRUB [LS] (0.58 AC)
- ELDERBERRY SCRUB [E] (0.63 AC)
- DESERT OLIVE PATCH [DO] (1.22 AC)
- ANNUAL GRASSLAND [AG] (91.33 AC)
- NATIVE GRASSLAND [NG] (7.13 AC)
- DISTURBED–NON–VEGETATED [D] (19.47 AC)
- CALIFORNIA BUCKWHEAT SCRUB/NATIVE GRASSLAND [BW/NG] (50.11 AC)
- BRITTLEBUSH SCRUB/CALIFORNIA BUCKWHEAT SCRUB [BB/BW] (32.48 AC)
- BRITTLEBUSH SCRUB/ERICAMERIA SCRUB [BB/ER] (8.69 AC)
- BIG SAGEBRUSH SCRUB/ELDERBERRY SCRUB [BS/E] (0.88 AC)
- BIG SAGEBRUSH SCRUB/RUBBER RABBITBRUSH [BS/EN] (0.83 AC)
- BIG SAGEBRUSH SCRUB/SCALEBROOM SCRUB [BS/LS] (0.80 AC)
- CALIFORNIA BUCKWHEAT SCRUB/NARROWLEAF GOLDENBUSH SCRUB [BW/EL] (5.60 AC)
- CALIFORNIA BUCKWHEAT SCRUB/ERICAMERIA SCRUB [BW/ER] (34.92 AC)
- CALIFORNIA BUCKWHEAT SCRUB/RUBBER RABBITBRUSH [BW/EN] (43.91 AC)
- JOSHUA TREE WOODLAND/ELDERBERRY SCRUB [JT/E] (0.24 AC)
- TUCKER OAK CHAPARRAL/CALIFORNIA BUCKWHEAT SCRUB [TO/BW] (2.21 AC)



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Table 4.4-3 – Vegetation Community Acreages		
Vegetation Communities	Vegetative Structure	Acreage
Tucker Oak Chaparral	Chaparral	262.93
Juniper Woodland	Woodland	43.94
Joshua Tree Woodland	Woodland Cells	0.07
California Buckwheat Scrub	Scrub	144.64
Brittlebush Scrub	Scrub	25.32
Rubber Rabbitbrush	Scrub	91.16
Narrowleaf Goldenbush Scrub	Scrub	0.04
Ericameria Blended Series	Scrub	0.35
Big Sagebrush Scrub	Scrub	8.61
Scalebroom Scrub	Riparian Scrub	0.58
Elderberry Scrub	Riparian Scrub	0.63
Desert Olive Patch	Riparian Scrub	1.22
Annual Grassland	Grassland	91.33
Native Grassland	Grassland	7.13
Disturbed-Non-Vegetated	N/A	19.47
California Buckwheat Scrub/Native Grassland	Grassland/Scrub	50.11
Brittlebush Scrub/California Buckwheat Scrub	Scrub	32.48
Brittlebush Scrub/Ericameria Scrub	Scrub	8.69
Big Sagebrush Scrub/Elderberry Scrub	Riparian Scrub	0.88
Big Sagebrush Scrub/Rubber Rabbitbrush	Scrub	0.83
Big Sagebrush Scrub/Scalebroom Scrub	Riparian Scrub	0.80
California Buckwheat Scrub/Narrowleaf Goldenbush Scrub	Scrub	5.60
California Buckwheat Scrub/Ericameria Scrub	Scrub	34.92
California Buckwheat Scrub/Rubber Rabbitbrush	Scrub	43.91
Joshua Tree Woodland/Elderberry Scrub	Woodland	0.24
Tucker Oak Chaparral/California Buckwheat Scrub	Chaparral	2.21
	Total	878.1

Source: General Biological Assessment for the 878.1-Acre Quail Valley Planned Development Project, prepared by TeraCor Resource Management, dated February 12, 2020

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- *Joshua Tree Woodland* – Joshua tree woodland has been substantially reduced across the Project site over the last two decades, due almost exclusively to fire and probably aided to some extent by persistent drought. Prior to the July 5th and 6th, 2005 wildfire, GLA identified a total of 239 Joshua trees were on the property using methodology appropriate at that time. Subsequent to that fire, it was determined that 201 Joshua trees severely burned and 38 trees were not burned; a potential 84 percent reduction in Joshua tree population. It appeared to the investigators that most of the trees burned severely have not recovered and are no longer present. This reduction in individuals has resulted in a corresponding loss of Joshua tree woodland. TeraCor recognized Joshua tree woodland as a vegetative series on-site. In most instances cells of Joshua trees were too small to be mapped. However, TeraCor did map 0.07 acre of this community on the Project site. Approximately 0.24 acre of Joshua tree woodland occurred in conjunction and in close proximity to elderberry shrubs. Twenty-seven Joshua trees within 0.07 acre in the identified woodland are proposed for transplant as part of Project development. Therefore, the total combined acreage including the occurrence with elderberry is almost one-third acre (0.31 acre). Although the General Biological Assessment indicates that the Project has no effect on the 0.24 acre of Joshua tree woodland and elderberry scrub community, however, the very small cells and individuals that persist within the development footprint totaling 0.07 acre would be affected by project development. On September 22, 2020, the California Department of Fish and Game Commission determined that listing the western Joshua tree as Endangered/Threatened may be warranted. For the foreseeable future, western Joshua trees will be treated as a Candidate Species. “Take” authorization, or other authorization by CDFW, for removing or impacting western Joshua trees will be required under the California Endangered Species Act and the California Western Joshua Tree Conservation Act.
- Envicom staff arborists conducted a survey of Western Joshua Trees growing in Project site Areas A and B over the course of seven days between December 14, 2022 and May 5, 2023. The surveys included inventory and evaluation of all Joshua trees with a stem or trunk arising from the ground, regardless of proximity to another Joshua tree. The survey was conducted by walking transects and investigating particular areas thoroughly to detect presence of a Joshua tree, including searching understory of scrub habitat. Inaccessible areas were scanned using binoculars from distances and vantage points that allowed viewing of the entire area and detection of Joshua trees or seedlings. For purposes of the Joshua Tree Report, seedlings are defined as Joshua trees measuring less than one-foot in height. Location of Joshua trees on the Project site and seedlings are illustrated in the **Exhibit 4.4-4 (Joshua Tree Inventory & Project Impacts Map)**. Data recorded during the survey are summarized in the **Tables BIO-4.4-4, BIO-4.4-7, and BIO-4.4-8**.

Survey Results

The survey resulted in recording a total of 821 Joshua trees on the Project site, comprised of 429 trees and 392 seedlings. The total number of Joshua trees within each size class are provided in **Table BIO-4.4-4** below. To see a map depicting the location of each individual Joshua tree or seedling surveyed, the assigned numbers, and data collected for each tree, please refer to the GIS viewer available at nexus.evouala.com/application/run/8450.

The total number of Joshua trees within each age class are summarized below in **Table BIO-4.4-5** (no data associated with seedlings is included).

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Habitat Buffer Mapping

The Habitat Buffer comprises the area within 186 feet of any tree that displayed evidence of producing flowers or fruits to represent the presumed extent of the associated seedbank. Based on this criterion, the surveyed area comprises approximately 77.43 acres of mapped Habitat Buffer.

Table 4.4-4 – Size Class Summary		
Size Class	Size Class Description	Size Class Total
< 1 meter	Trees measuring less than 1 meter in height	185
≥ 1 meter and < 5 meters	Trees measuring 1 meter or greater, but less than 5 meters in height	236
5 meters	Trees measuring 5 meters or more in height	8
Seedlings	Trees measuring less than 1 foot in height and could not be tagged	392
Total		821

Table 4.4-5 – Age Class Summary		
Age Class	Age Class Description	Size Class Total
Juvenile	Leaves observed only	327
Mature	Evidence of Flowers/Fruits	102
Total		429

Project Impact Analysis

Approximately 450 acres of Area A would be graded during Project development. This grading will result in removal of 235 Joshua trees and 227 Joshua tree seedlings. In addition, approximately 34 acres of Joshua Tree Habitat Buffer will be impacted by Project development. The following **Exhibit 4.4-4** depicts the impact area. Per the Western Joshua Tree Conservation Act, mitigation to offset these impacts shall be based on the size class of removed trees. The total number of trees to be removed and avoided based on the size class are provided below in **Table 4.4-6**. The total number of seedlings to be removed and avoided are provided below in **Table 4.4-7**. The following **Table 4.4-8** provides a summary of the total acreage of the Survey Area, the Development Footprint, and the Joshua Tree Habitat Buffer, as well as the total Habitat Buffer to be impacted.

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Environmental Impacts – Biological Resources

EXHIBIT 4.4-4 – JOSHUA TREE INVENTORY & PROJECT IMPACTS MAP

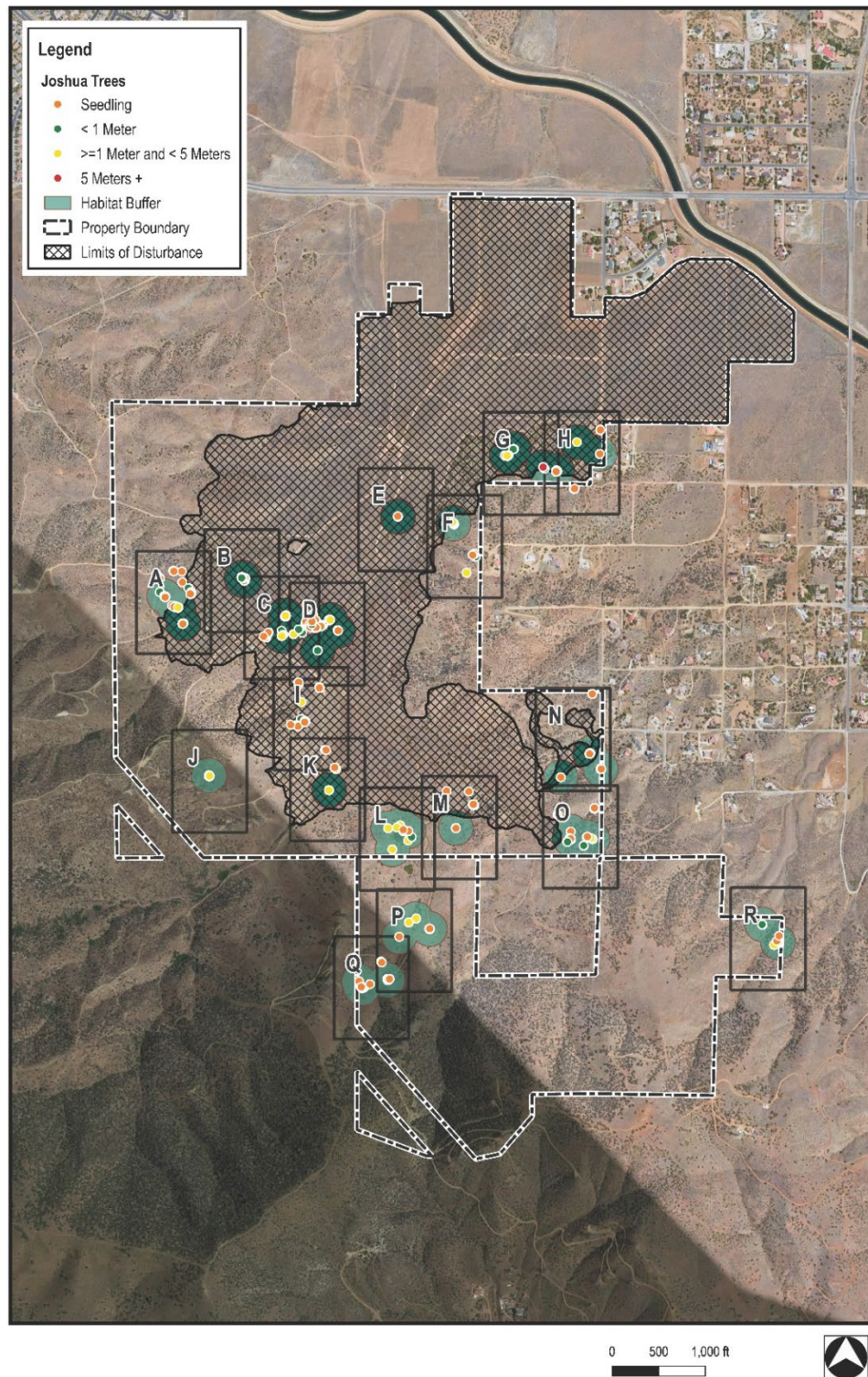


Table 4.4-6 – Joshua Tree Impacts					
Size Class	Size Class Total	Total Trees/Seedlings to be Removed	Total Trees/Seedlings Avoided	Percent Impacted	Percent Avoided
< 1 meter	185	123	62	66%	34%
≥ 1 meter and < 5 meters	236	109	127	46%	54%
5 meters	8	3	5	38%	63%
Total	429	235	194	55%	45%

Table 4.4-7 – Seedling Impacts					
Size Class	Size Class Total	Total Trees/Seedlings to be Removed	Total Trees/Seedlings Avoided	Percent Impacted	Percent Avoided
Seedlings	392	227	165	58%	42%

Table 4.4-8 – Joshua Tree Habitat Buffer Impacts			
Survey Area	Development Footprint	Joshua Tree Habitat Buffer	Joshua Tree Habitat Buffer Impact
877 Acres	450 Acres	77 Acres	34 Acres

Scrubland

Scrubland Alliances – Scrublands, or shrublands, tend to occur in California where moisture is restricted most of the year, but they occur from sea level to several thousand feet in elevation above mean sea level. They can occur in inland valleys where climatic conditions tend to be hot and dry year-round, or on the lower slopes of mountain ranges where slopes are vegetated with scrub species below the orographic rainfall line. The relative lack of water, intense summer sun, and degree of slope results in soil profiles that are relatively shallow and mineral, as opposed to highly organic in composition.

Shrublands occurred ubiquitously across most of the Project site. Shrublands were notably absent on steeper, north-facing slopes where aspects (i.e., solar angles) favor the development and continuity of chaparral and woodland communities. Some of these shrublands were dominated by a single vegetative species. Other communities (i.e., blended alliances) occurred with two co-dominants in the vegetative matrix.

TeraCor classified and mapped the following Shrubland classifications:

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- *California Buckwheat Scrub* – California buckwheat scrub is a widespread and resilient shrub alliance throughout the central and southern California coast, the southern California inland and coastal valleys, the lower coastal ranges, foothills of the Transverse and Coast Ranges and high deserts. It occurs generally between 0 and 3,600 feet above mean sea level. The Project site contains several distinct California buckwheat cell groupings, where it occurs monotypically (as such is not considered rare) on ridgelines and slopes between stands of chaparral and woodland communities. California buckwheat as an alliance was mapped on approximately 145 acres across the property.

TeraCor mapped California buckwheat as a co-occurring, (usually dominant) community in five different associations: buckwheat scrub/native grassland (approximately 50 acres), brittlebrush scrub/buckwheat scrub (approximately 33 acres), buckwheat scrub/*Ericameria* scrub (approximately 55 acres), and buckwheat rubber rabbitbrush scrub (approximately 44 acres). The California buckwheat scrub/native grassland association warrants consideration as sensitive due to three of the five native grass alliances being sensitive. The mapping segregated monotypic stands from blended stands.

The combined total of California buckwheat scrub associated alliances on-site is approximately 326 acres, or more than 37 percent of the entire Project site, thereby demonstrating a strong prevalence of California buckwheat scrub-associated habitat across the Project site property. Project development would remove approximately 148 acres, or 45 percent of California buckwheat alliance/associations on the property. Most of the associations are not rare or sensitive; however, California buckwheat/Narrowleaf goldenbush is considered sensitive though it has no rarity ranking. There are approximately 6 acres of this association and approximately 4 acres of it would be affected by the Project.

- *Rubber Rabbitbrush Scrub* – Rubber Rabbitbrush is a common shrub in desert regions of southern California, and it is also common on the Project site. It occurs as a dominant species in deep sandy soils within broad upland alluvial conditions. It covers approximately 91 acres on the Project site as an alliance. It occurs with California buckwheat in other upland areas where it comprises approximately 44 acres. It co-occurs with big sagebrush in and in close proximity to active fluvial channels, especially the central main drainage on the Project site (approximately 0.83 acres). Grouped as one large association, it covers a total of approximately 136 acres on the Project site. Project development would affect approximately 136 acres, or 99 percent of the rubber rabbitbrush association found on-site. It is not considered rare and is not listed as sensitive.
- *Brittlebush Scrub* – Brittlebush scrub, with brittlebrush as the dominant component, comprises approximately 25 acres as a dominant species on the Project site. It is located in mostly upland alluvial conditions in the central portion of the property. Brittlebush scrub was found more extensively when it was co-dominant with two other shrubs. It co-occurred in the westerly-most quadrant of the site in conjunction with California buckwheat (approximately 33 acres), but the buckwheat was dominant; therefore, TeraCor calculated that acreage as a buckwheat-associated habitat. It also co-occurs with narrowleaf goldenbush (*Ericameria linearifolia*) (approximately 9 acres) on a ridge which is found between the other two occurrences but is not dominant. Most of the Brittlebush mapped as an alliance, approximately 24 acres, will be removed by project development and is considered sensitive.
- *Big Sagebrush Scrub* – Big Sagebrush is found in alluvial environments throughout the Antelope Valley and lower flanks of the San Gabriel Mountains. TeraCor assumed the fires on the Project

site may have reduced this community down to its current distribution. As a dominant species, it covers approximately 9 acres. As a co-dominant species blended with elderberry scrub, rubber rabbitbrush scrub, and scalebroom scrub, it covers an additional approximately 3 acres, for a total coverage alone and with other co-dominant species of approximately 11 acres. Approximately 9 acres of big sagebrush association would be removed, or 83 percent. This plant community is not considered rare or sensitive.

- *Narrowleaf Goldenbush Scrub* – Narrowleaf goldenbush is in the same family as rabbitbrush, but goldenbush tends to occur more frequently on the Project site on ridgelines and similar areas. It is commonly found on-site, but has a very small distribution where it is the dominant species in the scrub canopy. It occurs as the dominant species on only 0.04 acre, but occurs more frequently when it is co-dominant with brittlebrush (approximately 9 acres), and California buckwheat (approximately 6 acres), for a total coverage on the project site of approximately 14 acres. It also can be found on the Project site in limited association with Tucker oak chaparral and California juniper, but not as a co-dominant species. The proposed project would affect approximately 12 acres of goldenbush associated alliances and associations. Narrowleaf goldenbush as an alliance is not considered rare, but the alliance is listed as sensitive.
- *Scale Broom Scrub* – Scale broom scrub is found widely across southern California in habitat areas that are intermittently or rarely flooded, which are zones such as streams, desert washes, or alluvial fans; but has a limited distribution on the Project site. It occurs in the primary drainage located centrally on the property, where it comprises approximately 0.6 acre. It co-occurs with big sagebrush scrub on approximately 0.8 acre, for a total associated acreage of approximately 1.4 acres. The CNCL has assigned a rarity ranking of S3/G3 to this alliance, therefore this alliance is considered rare. It is also listed as sensitive.
- *Elderberry Scrub* – Blue elderberry is a common shrub in California and easily recognized as an important seasonal resource for the abundant berries it produces each summer. Birds and mammals both benefit from it as a food source, and it provides cover and possible nesting habitat for certain birds. It tends to occur in deeper loam and alluvial soils, either near streams or in bottomlands where sufficient moisture accumulates in the substrate to support the species. It occurs as the dominant species in an approximately 0.6-acre area on the Project site. It co-occurs with big sagebrush (approximately 0.9 acre) and Joshua tree (approximately 0.2 acre) on the Project site, for a combined total of approximately 1.75 acres on-site. Blue elderberry stands are considered sensitive with a CNCL rarity status assignment of S3/G3. Project development would affect approximately 0.5 acre of the total approximately 1.75-acre blue elderberry stand association, or approximately 30 percent of elderberry stands on-site.
- *Desert Olive Patch* – A patch of the riparian-associate desert olive occurs in a primary tributary drainage on the Project site in an area mapped as approximately 1 acres in extent. The shrubs are generally less than 15 feet in height, and can grow in very dense thickets, as they do on the Project site. The patch on the Project site is so dense it is nearly impenetrable by human passage in the creek bottom. Desert olive apparently has not been assigned a CaCode designation, so there is no apparent sensitivity or rarity designation. The occurrence lies within a designated open space area on the Project site and will remain intact after project development.

Grass and Herbaceous Alliances

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The Project site contains both perennial native grasslands and annual non-native grassland. Both types contain a variety of native wildflowers and annual herbaceous vegetation.

Annual non-native grassland generally functions at a diminished level of productivity or functionality compared to native grassland. Annual non-native grassland has several negative characteristics including: 1) maintaining an excessive demand for near-surface soil moisture, thereby out-competing native annual plant species; 2) inhibiting passage and access to the soil surface for most smaller ground-dwelling invertebrates, reptiles and small mammals; and 3) over time forming an impenetrable layer over the soil precluding establishment of annual plants, shrubs or trees. Non-native grassland does, however, have some positive attributes. Annual grassland can support similar assemblages of annual flowering species and animal species as native grasslands, albeit at lower densities for undetermined lengths of time, particularly if it is grazed or burned periodically.

- *Annual Brome Grasslands* - The valley floor portion of the site, along with some of the more accessible arroyo bottoms, contain a preponderance of annual grasses and associated herbs and weeds, however, the grasses were generally mixed and stands were varied in their composition.

The dominant native plants comprising annual grasslands on the Project site include:

- Fiddleneck
- Miniature lupine
- Rusty popcorn flower
- Winged combseed
- Red maids

The dominant non-native plants comprising annual grasslands on the Project site include:

- Red brome
- Cheat grass
- Rat-tail fescue
- Tumble mustard
- Red-stemmed filaree

Certain annual grass alliances, heterogeneously distributed, were recognized and listed below. All were too intermixed, too small in extent, or were minor community constituents to attempt to map any of the community elements as single communities. None are considered rare or sensitive in the CNCL.

- Wild Oat semi-natural grassland
- Cheatgrass grassland
- Ripgut grassland - mixed herbs
- Fiddleneck Fields
- Red brome grassland - mixed herbs

The lower elevation, more level fields to the north central end of the Project site were previously designated as “ruderal” by GLA in various reports from 2005 to 2017. This was a common designation for disturbed areas at the time GLA originally performed their analyses. Moreover, the subject site had also recently burned when it was originally mapped by GLA and community constituents appeared largely absent. In 2019 TeraCor inventoried all the grasses and annual wildflower/herbaceous species, as well as faunal species, and surveyed these areas on multiple occasions between April and October 2019. TeraCor concluded, in consultation with CDFW representatives, it was prudent to specifically characterize all habitat areas in accordance with the Sawyer/Keeler Wolf classification system. While the grasses are not native, there is a co-dominant presence of fiddleneck and other wildflowers with the different Bromes specifically referenced in the CNCL.

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Unlike other areas of the Antelope Valley, however, no striking, Spring-associated blanket of wildflower fields across the property was observed by TeraCor, though this phenomenon may occur in wetter seasons in other years.

Annual grasslands comprise of approximately 91 acres on the Project site, almost all of which lie within the proposed development footprint. None are sensitive or rare. The proposed Project would affect approximately 86 acres of annual non-native grasslands.

- *Native Grassland* - Native grasslands on the project site are located on ridges, slopes, and upper elevation zones where grazing and mechanical disturbances have not degraded or diminished stands of native grasses. TeraCor mapped approximately 7 acres of native grassland, which consisted primarily of perennial bluegrass and squirreltail grass. It should be noted that native grasses are extensively spread across upper elevation areas (generally the avoided areas) as they are more remote, steeper, and generally less accessible to human utilization. These other native grass stands, however, comprise a small percentage of the overarching plant community designation (for example, Tucker oak chaparral or juniper woodland) and as such are overshadowed by the more prominent community type. Isolated occurrences and patches of other native grasses were also present, but not in cells large enough to map. Had they been mappable, they would have included the following grasses:
 - Curly blue grass (perennial bluegrass) grassland (no rarity ranking, but alliance is sensitive)
 - Squirreltail Patches (no rarity ranking)
 - Desert needlegrass grassland (G4/S2)
 - Foothill (Crested) needlegrass grassland (no corresponding CaCode nor rarity ranking)
 - Purple needlegrass grassland (no rarity ranking, but alliance is sensitive)

Additional stands of native grass were much more abundant when found to be co-dominant with California buckwheat, a very common perennial shrub across southern California, and as described above, on the Project site. The total area consisting of this blended alliance was approximately 50 acres, which when included with the single dominant stands of grass totaled approximately 57 acres of native grassland across the property. Native grasses occurred elsewhere in other plant alliances on-site, but in ratios too low and in occurrences that were too scattered to be considered a co-dominant in other plant alliances on the Project site. A total of seven native grass species were recorded during surveys in 2019 on-site. These included: perennial blue grass; squirreltail grass; desert needlegrass; foothill (crested) needlegrass; purple needlegrass; melic grass (*Melica imperfecta*); and, Fescue (*Vulpia microstachys*). The proposed development would affect 0.45 acre of the native grasslands mapped, or seven percent of mappable native grasslands on-site.

Disturbed Non-Vegetated

Disturbed non-vegetated areas on the Project site include dirt roadways, European honey beehives, vehicle turn-arounds and ad hoc parking and disturbed areas. This area comprises of approximately 20 acres of the Project site. These disturbed areas are mostly well-established roads which are densely-compacted and/or eroded. Dirt paths which were not particularly well-established were not mapped and disturbed. These areas were incorporated into the surrounding designated vegetative matrix, for mapping purposes. They showed less compaction and/or erosion and exhibited certain signs of recovery, like emergent plants.

Disturbed areas can have additional positive attributes. Smaller organisms, including snakes, lizards, and small mammals have great difficulty moving and detecting predators in dense annual grasslands. Dirt roads can provide important sunning and movement routes for these organisms, which inhabit non-native grasslands. Predators, including raptors and snakes, can also locate and capture prey more easily in open areas not choked with non-native grass or containing stands of dense shrubs. Conversely, disturbed zones also support a concentration of vehicular traffic, which often results in death of snakes and smaller animals like horned lizard and white-footed mouse. The proposed development would remove approximately 15 acres of disturbed zones.

4.4.5 BIOGEOGRAPHY, CORRIDORS, SIGNIFICANT ECOLOGICAL AREAS, AND WILDLIFE

Biogeographic Setting of the Project Site

Biogeographic theory as a discipline has given rise to concepts such as biodiversity, extirpation, event causes, wildlife corridors, habitat linkages, habitat fragmentation, edge effect, and biodiversity-based wildlife preserve design. Land use decisions increasingly must consider not only the direct effects to organisms impacted by Project implementation, but longer term and less obvious effects to organismal population vitality and organism dispersal and movement.

Biogeographic theory maintains that any habitat patch, or island, which experiences genetic isolation, will undergo eventual extinction if the habitat unit is too small to support genetic variability in any given species. It is not the movement of the individual animal which is important; it is the movement of genetic material (including floral species) on a per species basis through an ecosystem which is important over time, as described below:

“Habitat loss and fragmentation due to urbanization are the most pervasive threats to biodiversity in southern California. Loss of habitat and fragmentation can lower migration rates and genetic connectivity among remaining populations of native species, reducing genetic variability and increasing extinction risk.” (Vandergast, Bohonak, Weissman, Fisher, 2007)

Movement zones (opportunistic dispersal avenues) and corridors (large scale, genetically-driven, seasonal migratory corridors) are differentiated by their roles. Actual wildlife corridors can be “hard-wired” into a species, or they can be semi-established routes where animal movement can be concentrated within valley bottoms, along streams or on ridgelines. Corridors and habitat linkages are essential to the maintenance of seasonal success per individual, or overall population vigor, reproduction, and genetic variability. Movement zones through habitat linkages are not necessarily hard-wired into species. They are zones of connective habitat, often wedged between inhospitable zones, where an individual animal can move and/or? relocate in order to opportunistically find resources, or to disperse or flee from danger. These zones, while perhaps not corridors *per se*, can be critical nonetheless for individual animal survival or for maintenance of genetic variability.

Migratory corridors and pathways may be as large and diverse as the Pacific Flyway for migratory bird species in California like yellow warbler (*Dendroica petechia*), or may be much shorter and habitat specific for animals moving between montane and lowland environments on a seasonal basis, such as mule deer

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(*Odocoileus hemionus*) that often use “...an established migratory pathway” (Peterson, 2006) between seasonal foraging grounds. Movement pathways are necessary in the short-term success of mobile organisms which require ranges large enough to find support resources and food or prey but can be reluctant or unable to move through urban landscape. Movement pathways represent available paths to needed resources, such as water, food, or breeding grounds.

Regional Connectivity in the San Gabriel Mountains

The San Gabriel Mountains/Angeles National Forest habitat block constitutes a regional natural habitat complex comprised of many tens of thousands of acres. Hundreds of vertebrate and invertebrate species roam, forage, inhabit, reproduce and migrate through the San Gabriel Mountains, which are positioned geographically between the greater Los Angeles metropolitan area and the Mojave Desert.

The Project site consists of three distinct landforms that lie at different elevations: 1) the valley floor (generally between 2,900 to 3,050 feet msl); 2) arroyos and narrow valleys (roughly between 3,100 feet and 3,400 feet msl), and intervening ridges and hillsides (between 3,300 and 4,500 feet). As such, the property comprises an interface between the Libre Mountains (a subunit of the Transverse Ranges) and the floor of the Antelope Valley.

The Project site lies outside and to the north of the Angeles National Forest in a hills system (Liebre Hills) that is generally considered a minor subunit of the San Gabriel Mountains. The Project site itself is contained within one un-named watershed unit. The conclusion, therefore, is that the Project site lies at the very north edge of the San Gabriel Mountains habitat complex, with most of the development footprint on the valley floor and arroyo bottoms. There would not appear to be an exclusive or critical role for the Project site itself to play in biogeographic corridor or movement dynamics in the larger San Gabriel Mountains or Angeles National Forest.

Wildlife Utilization of Corridors

Wildlife use of corridors may be fixed or flexible, depending upon the type of organism and the size and complexity of the corridor zone. Animals that move along corridors as part of an evolutionary-based pattern of migration or dispersal may be genetically programmed to follow predetermined and sometimes ancient migration routes (i.e., “hard-wired,” or for example, as with anadromous fish species like spawning salmon). Animals with hard-wired behavior patterns usually have little or no individual ability to modify their behavior, even in the face of abrupt physical changes or barriers. When confronted with impassible barriers, they may have no appropriate alternative response behaviorally. In such cases, actions that physically obstruct corridors may result in population dislocation, inability to reach essential seasonal resource areas, loss of individual animals, and overall population declines.

Organisms are generally driven to disperse through mechanisms such as the scarcity of support resources (for example, food water, microhabitats, shelter), dispersal of young from parental territories, migratory genetic programming, and accidental dispersal, such as flooding events carrying individuals to downstream locations, fire-driven flight, or similar mechanisms. Organisms sometimes disperse along well-defined corridors (for example, the Pacific flyway, or through inter-connected stream systems in the case of amphibians dependent on wet or moist environments). Terrestrial generalists (for example, mountain lion, black bear, mule deer, rattlesnakes, coyote, bobcats, woodrats, and pocket mice) usually do not migrate or move substantially unless seasonal, reproductive, or ecological factors necessitate movement in order to

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locate and exploit critical support resources.

Movement and dispersal can occur broadly through all habitat types on the Project site, but often is concentrated in drainages and on ridgelines. Dispersal for plants can be in any direction. Dispersal for wildlife is also somewhat unpredictable. However, animals generally follow their preferred habitat types and vegetative cover, and higher awareness organisms, like mountain lion or bobcat, tend to follow routes with good visibility and manageable terrain. Other organisms can tend to move within their preferred habitat structures for reasons of safe cover, food availability, and other species-specific requirements.

Drainages can be purposely utilized by animals during dispersals and/or migration, especially when they contain surface water and vegetative canopy to provide cover during movement. Drainages can be incidental movement areas as well during periods of intense rainfall when swollen creeks can carry small animals like snakes, lizards, rodents and amphibians downstream on vegetation rafts. Animals are easily moved hundreds of feet downstream in this manner or much further if the animal can tread water or its raft drifts into and through larger riverine systems. There is one primary drainage on-site, characterized by GLA in their Preliminary Jurisdictional Delineation, as a swale. This swale is indicated as a blueline drainage on USGS topographic mapping. There was no surface flow observed on the Project site either by GLA or by TeraCor. However, engineering calculations indicate that the property could generate substantial surface flow during higher intensity rainfall events. Sudden, intense flows could potentially carry small animals downstream in the manner described above. Currently this drainage enters a large culvert under Avenue S. The culvert discharges stormflow toward the northeast into off-site properties, under the California Aqueduct, and through additional storm control facilities. Eventually stormwater would be expected to reach the San Andreas rift zone into Anaverde Creek.

Other animal movement could be expected to occur along lines of generally equal elevation, perpendicular to the blueline drainage across the central arroyo. As discussed previously, animals often stay within their preferred habitat types when possible, and they also tend to move across hilly landscapes in a horizontal manner, which conserves energy and minimizes water needs in an arid environment.

The physical movement of animals on the Project site can be expected to occur along three different routes or landscape types: 1) laterally between similar habitats along elevational landscape bands (e.g., through grasslands for species adapted to foraging in grasslands); 2) vertically along well-defined arroyos which exhibit gradual elevational change from valley floor to mountain crests (especially “saddles”); and, 3) unpredictably or haphazardly (i.e., for habitat generalists and highly mobile predators). On a small scale, it is common to see wildlife trails which are as narrow as an inch or two for small rodents, or over a foot wide for deer. When these trails occur on a hillside, they often occur along lines of equal elevation, adjusted for ease of passage through less-dense vegetation. These well-worn wildlife trails do not occur in an up or down orientation.

The other aspect to movement on the Project site is likely to be temporal, not physical, and this is often in an up and down manner on a gross scale. Seasonal movements occur with changes in optimal foraging opportunities on a per species basis. This might be the case with brown bear, for example, which are generally absent from the Project site but could wander downslope during periods of resource scarcity in higher elevation areas. To elaborate on the temporal nature of movement, vertical movements might also occur in predators that prefer lizards, such as loggerhead shrikes. Reptiles usually become active on the valley floor each morning as temperatures rise, and in the early Spring on a seasonal basis due to warmer weather (Winter presumably causes a decrease in activity for most reptilian species). Some species,

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therefore, may move vertically up and down elevational zones, based on prey availability which can correlate with the time of day or on a seasonal basis.

Constrained Connectivity – Rim of the Antelope Valley

Animals disperse and migrate most successfully through habitat areas in which each individual animal is able to detect and exploit support resources in that area. If unfamiliar or hostile impediments and obstructions are encountered by animals, it can be intuitively discerned that dispersal success may be lowered or even halted altogether. There are human-constructed obstacles to movement that animals must either avoid via diversion, or navigate directly.

Low awareness species (e.g., butterflies, salamanders, or toads) will move through unobstructed habitat near an obstruction without distraction. Low awareness organisms might frequently attempt to move through or over the obstruction. What may constitute a barrier for one species, however, such as a fence or a wall, has little to no effect on other species. Birds, burrowing mammals, or flying invertebrates, for example, can usually successfully pass over or under a barrier such as a wall. Habitat specialists, like burrowing animals, however, cannot usually move through hostile areas like cityscapes, where physical barriers and humans inhibit movement.

TeraCor identified several generalized potential altered landscapes (infrastructure barriers, urban development, graded disturbed sites, and other possible existing impediments to movement) in the vicinity of the Project site, on the edge of the Antelope Valley. Each of these altered landscapes, to some extent, have characteristics which inhibit certain species (or suites of species) in their ability to successfully navigate the dispersal landscape. These structures and human-affected landscapes include:

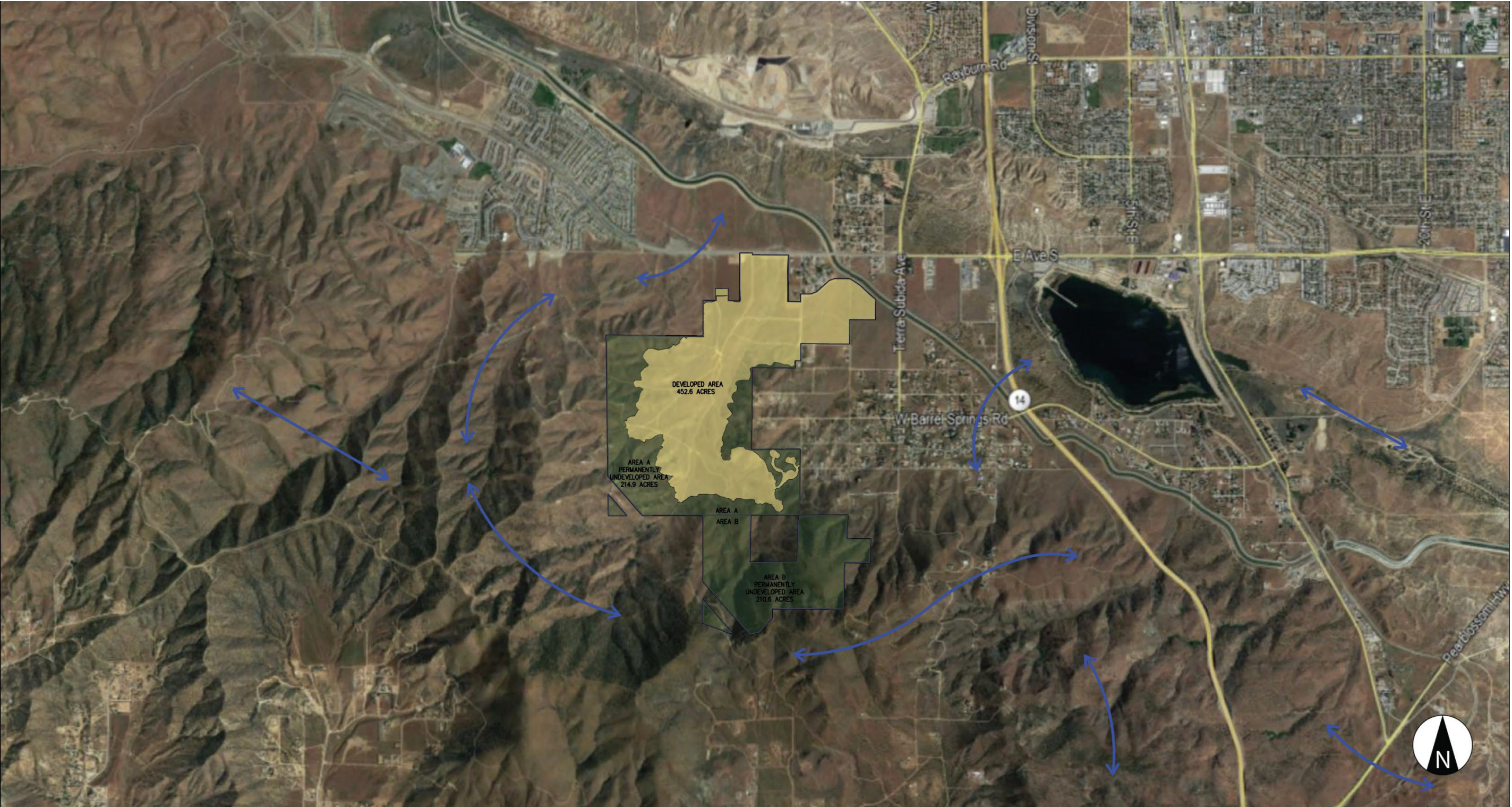
- State Route-14 (SR-14) – Antelope Valley Freeway
- Area roadways (Sierra Highway, Avenue S, and other thoroughfares)
- California Aqueduct
- Lakeview/Tovey Avenue neighborhood (low density)
- Lower Tovey/Hernandez neighborhood (medium density)
- Anaverde neighborhood (medium density)
- Antelope Valley Landfill
- Utility rights-of-way (especially above ground power lines and related infrastructure)
- Human presence

Each of the above-identified obstructions poses a unique set of issues for dispersing organisms (varying from almost no discernible effects to serious disruption). Low density residential development varies in its effects, based on the size of the graded pad, fencing, type of landscaping installed, outdoor presence of dogs and cats, and similar factors. Birds, bats, coyotes, racoons, and a good number of other animals move through low density residential areas. Other species would be reluctant to enter such an area.

Exhibit 4.4-5 (Biogeographic Aerial Photo) illustrates the proposed Project superimposed on the landscape; the other yellow shows the development footprint, and the dark green color shows the avoidance area that will be owned and managed by the Project's homeowner's association. The exhibit depicts the existing constrained connectivity surrounding the Project site, and the conceptual avenues of dispersal available within and around the Project site.

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EXHIBIT 4.4-5 – BIOGRAPHIC AERIAL PHOTO



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Significant Ecological Areas

The Antelope Valley has two Significant Ecological Areas (SEA): the San Andreas SEA No. 17, which overlies portions of the San Andreas Rift Zone; and, the Antelope Valley SEA No. 3, which lies several miles past SR-14 to the east. The Santa Clara River SEA No. 20 is located south of the Project site over the Sierra Pelona in the headwaters of the Santa Clara River. Neither SEA No. 17 or SEA No. 3 overlies, or is adjacent to, the Project site.

1) San Andreas SEA No. 17

This SEA is the second largest SEA in Los Angeles County, exceeded in area only by the Antelope Valley SEA. The Los Angeles Department of Regional Planning SEA website notes the following characteristics of SEA No. 17:

The San Andreas SEA includes several important linkages for wildlife movement. The Fault Zone connects with the Santa Clara River drainage in the Lake Hughes area, linking with this large, free-flowing watershed that extend to the Pacific Ocean in Ventura County. The foothills and grassland in the westernmost segment of the SEA are part of an important linkage between the San Gabriel Mountains and the Tehachapi Mountains. This linkage to the Tehachapi Mountains is important because it connects the southernmost extent of the Sierra Nevada Mountains with the San Gabriel Mountains and with the southern Coast Ranges. The Tehachapi Mountains are the only mountain linkage between the Transverse Ranges and the southern Coast Ranges to the Sierra Nevada Mountains. This largely natural area is an important topographic reference for migrating birds and bats, functioning as essential high elevation foraging grounds along their migration route. The Tehachapi Mountains further provide a valuable link for gene flow between divergent populations of many species, including plants. The SEA includes several large drainages that extend from the San Gabriel and the Tehachapi Mountains to the western end of the Mojave Desert, flowing toward the Antelope Valley floor. These washes provide an important linkage for animals traveling between the mountains (all the ranges mentioned above) and the Mojave Desert. In addition, the sag ponds along the San Andreas fault zone and Amargosa Creek facilitates east-west wildlife movement through Liebre Mountain, Portal Ridge, and Ritter Ridge to Barrel Springs in the Antelope Valley near Palmdale. The frequency of valuable riparian communities along the travel route located within an otherwise arid climate, further indicates the importance of this area, which is one of the busiest natural wildlife linkages in the region.

2) Antelope Valley SEA No. 3

The Los Angeles County Department of Regional Planning website describes the Antelope Valley SEA No. 3 as follows:

The SEA extends from the Angels National Forest to the Playa lakes within Edwards AFB, encompassing the whole of the two largest drainages existing the north slope of the San Gabriel Mountain Range, and its geographical features serve as a major habitat linkage and movement corridor for all wildlife species within its vicinity. Ecologically “generalist” species have the ability to move across such vast areas and through changing habitat types. For such species, the SEA may serve as an important system for long-term inter-populational genetic exchange. For smaller or less-mobile species, or taxa which are more narrowly restricted in their habitat needs, the SEA can serve as a broad linkage zone, in which individual movement can take place during seasonal or populational dispersal.

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This provides essential genetic exchange within and between metapopulations. The two drainages, combined with the upland terrestrial desert-montane transect portion of the SEA, ensure linkage values and direct movement zones for all of the wildlife species present within the Los Angeles County portion of the Antelope Valley.

3) Santa Clara River SEA No. 20

The Los Angeles County Department of Planning describes Santa Clara River SEA No. 20 as follows:

...the riparian corridor along the Santa Clara River has served as the primary east-west linkage between the Pacific coastline, coast ranges, interior ranges, high desert and southern Sierra (via the Transverse and Tehachapi range). Animals moving through the Santa Clara River at one time had unobstructed passage along the river and within its tributaries. The present configuration of the tributary drainages has reduced connectivity from the Santa Clarita Valley to the north, but the Santa Clara River remains relatively intact and open. The SEA embraces the river corridor and the linkage zones considered essential to ensuring connectivity and resource values within the historic movement zones for all of the wildlife species present within the Los Angeles County portion of the Santa Clara River.

The habitat linkages of SEA No. 17 to SEA No. 20 are described as “relatively intact and open,” except perhaps around Santa Clarita. The Project site is several miles over the Sierra Pelona Range from SEA No. 20, and the Project lies within an entirely different major watershed (Mojave River watershed vs. the Santa Clara River watershed). As such, connection is via the intervening upland habitats associated with the Sierra Pelona Range, and not directly with the Santa Clara River. The intervening land, including most of the approximately 395 acres avoided in the Project property, is largely open and undeveloped.

Project Site Relationship with the SEAs

The Project site is approximately 3 miles from the nearest SEA to the northwest; the San Andreas SEA No. 17. It appears the Project site could have an indirect relationship to SEA No. 17 and would consist of the incidental dispersal of flora and fauna out of the hills, onto the valley floor, through fragmented habitat areas, across Avenue S, past the Anaverde Nuevo project, over and through the fenced aqueduct infrastructure and swift-moving surface water, over SR-138, and into the San Andreas SEA. The SEA terminates on Ritter Ridge, which is why it lies approximately 3 miles from the Project site.

Within the SEA discontinuity (which is approximately three miles long) there is a considerable amount of infrastructure and development, including the California Aqueduct, low and medium scale residential development, Elizabeth Lake Road, Avenue S, the Antelope Valley Landfill and SR-14. The SEA picks back up at Lake Palmdale (east of SR-14). All these human-constructed features are expected to constrain east/west dispersal or movement between the discontinuous SEA for many organisms, but these obstructions probably would not be expected to eliminate dispersal and genetic exchange. Rather, these areas could be considered “constrained” linkages. Due to high mobility, it is likely that avian and meso-predator movement continues relatively unimpeded in the constrained linkages, but mobility is likely less frequent for other organisms.

Since the Project area lies south of the SEA discontinuity, there is not a clear biogeographic connection to the SEA with the Project site, except for birds and high awareness mobile organisms (e.g., coyotes, bobcats, or hares) that are fairly unconstrained in travel. Movement is possible for other organisms also, such as snakes or lizards, even though its success would be constrained due to traffic and the California Aqueduct.

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Multiple obstructions and roadways do not favor slow moving or low-awareness organisms. Nonetheless, the Los Angeles County website language provided suggests movement is possible across/under SR-14 into and through the Barrel Springs Road area of SEA No. 17 which is east of SR-14. Therefore, there may be limited animal movement between the Project site and SEA No. 17 as well.

Any direct relationship of the Project site to the Antelope Valley SEA No. 3 would be less direct, and likely limited to habitat generalists and high mobility organisms that could make use of both desert floor habitats like creosote bush scrub or alkali sink as well as those habitats that are found specifically within the Project site. The difference in these habitats is profound, and so relationships via connectivity would be difficult to predict or to conclusively establish. Nonetheless, establishment of the Antelope Valley SEA No. 3 with direct connections to the San Gabriel Mountains via three drainage systems east of SR-14 reflects the belief that connective habitat from desert floor to the San Gabriel Mountains should be maintained.

Connectivity and biogeographic relationship of the Project site to the Santa Clara River SEA No. 20 could be presumed for animals which could exploit both the upland habitats of the Project site and the riparian wash woodland habitats of the Santa Clara River. Birds and high mobility organisms could move directly up and over ridgelines from the Project site and down through the Acton area into the Santa Clara River watershed, and vice versa. Movement of low mobility organisms is less likely, but not completely infeasible.

Constrained Connectivity

TeraCor identified several generalized potential altered landscapes (infrastructure barriers, urban development, graded disturbed sites, and other possible existing impediments to movement) in the vicinity of the Project site, on the edge of the Antelope Valley. Each of these altered landscapes, to some extent, have characteristics that inhibit certain species (or suites of species) in their ability to successfully navigate the dispersal landscape. These structures and human-affected landscapes include the following:

- SR-14 – Antelope Valley Freeway
- Area roadways (Sierra Highway, Avenue S and other thoroughfares)
- California Aqueduct
- Lakeview/Tovey Avenue neighborhood (low density)
- Lower Tovey/Hernandez neighborhood (medium density)
- Anaverde neighborhood (medium density)
- Antelope Valley Landfill
- Utility Rights-of-way (especially above ground power lines and related infrastructure)
- Human presence

Each of the above-identified obstructions poses a unique set of issues for dispersing organisms (varying from almost no discernible effects to serious disruption). Low density residential development varies in its effects, based on the size of the graded pad, fencing, type of landscaping installed, outdoor presence of dogs and cats, and similar factors. Birds, bats, coyotes, raccoons, and a good number of other animals move through low density residential areas. Other species would be reluctant to enter such an area.

As discussed previously, **Exhibit 4.4-5 (Biogeographic Aerial Photo)** depicts constraints and conceptual avenues of dispersal available within and around the Project site.

Wildlife in the Vicinity of the Project Site

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Much of the natural habitat on the Project site has remained relatively undisturbed due to the steep terrain of the Sierra Pelona. Scrub, chaparral and woodland habitats on the Project site generally provide habitat for a wide range of southern California wildlife.

Mammals

TeraCor observed few mammals on the Project site, compared to the number believed to inhabit the Project vicinity or to utilize the Project site's resources. The following mammals were observed or detected on the Project site:

- Mule Deer
- Coyote
- Black-Tailed Jackrabbit
- Cottontail Rabbit
- California Ground Squirrel
- Domesticated Dog

Site surveys conducted previous to and as recent as 2019 indicated ground squirrels were relatively uncommon on the Project site. In addition, the Mohave ground squirrel was not present on site during the surveys.

Other mammal species expected to inhabit the Project site include the following:

- Bobcat
- Mountain Lion
- California Vole
- Big-Eared Woodrat
- Southern Grasshopper Mouse
- California Pocket Mouse
- Merriam's Kangaroo Rat
- Agile Kangaroo Rat
- Bats
- Brush Mouse
- California Mouse
- Deer Mouse

Almost two dozen species of bats might occur on-site either as a resident or in a foraging capacity. All regulatory status vertebrate animals expected to occur on the Project site have been listed in **Table 4.4.-9 (Regulatory Status/CNPS - Listed Plants)**.

Reptiles/Amphibians

TeraCor found no amphibians on the Project site although Pacific tree frog, slender salamander, and western toad would be expected. The following reptiles were observed:

- Side Blotched Lizard
- Whiptail
- Yucca Night Lizard
- Gopher Snake

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Birds

TeraCor recorded 44 species of birds observed or heard on the Project site. Only two raptorial species were observed. Red-Tailed hawk and one observation of an American kestrel were observed. The CDFW indicated an interest in the possible occurrence of Swainson's hawk on the Project site. However, TeraCor noted there were no particularly suitable nesting sites because trees on the Project site do not exceed 20 feet in height and there are few Joshua trees that also lacked branch articulation and canopy complexity appropriate for the Swainson's hawk. Ravens (which harass raptors frequently) were common on the Project site.

Bird species commonly recorded in grassland areas during multiple burrowing owl surveys included red-winged blackbird (*Agelaius phoeniceus*), occasional tri-colored blackbird (*A. tricolor*), Brewer's blackbird (*Euphagus cyanocephalus*), horned lark (*Eremophila alpestris*), mourning dove (*Zenaidura macroura*), lark sparrow (*Chondestes grammacus*), savannah sparrow (*Passerculus sandwichensis*), white-crowned sparrow (*Zonotrichia leucophus*), western meadowlark (*Sturnella neglecta*), and American pipit (*Anthus rubescens*). TeraCor biologists twice had brief, distant views of foraging flocks on the Project site that were likely tri-colored blackbird. Nesting habitat for this species is not present on the Project site; however, individuals may forage in the low grassland areas on occasion.

In open chaparral and scrub habitats located above 3,300 feet msl on the Project site, loggerhead shrike (*Lanius ludovicianus*), northern mockingbird (*Mimus polyglottos*), Say's phoebe (*Sayornis saya*), and phainopepla (*Phainopepla nitens*) were consistently recorded. Occasional observations in this zone included blue-gray gnatcatcher (*Poliophtila caerulea*), ash-throated flycatcher (*Myiarchus cinerascens*), and oak titmouse (*Baeolophus inornatus*).

Riparian scrub cells located on the Project site but outside the proposed development in avoided areas consist of desert olive patches and elderberry scrub. Birds observed in these areas included yellow-breasted chat (*Icteria virens*) and lazuli bunting (*Passerina amoena*).

Table 4.4-9 (Regulatory Status/CNPS - Listed Plants) provides additional information about bird species observed and those which have the potential to occur.

Burrowing Owl (Athene cunicularia)

The burrowing owl is a CDFW "Species of Special Concern-Second Priority." The United States Fish and Wildlife Service has declined to list the species as endangered or threatened based on abundance of the species in some California locations and other western states. The CDFW has undertaken a statewide effort to identify and protect occupied burrowing owl habitat in a March 7, 2012 staff report when the Department summarized preferred habitat for the species as follows:

The burrowing owl is a small, long-legged, ground-dwelling bird.... well adapted to open, relatively flat expanses. In California, preferred habitat is generally typified by short, sparse vegetation with few shrubs, level to gentle topography and well-drained soils (Haug et al, 1993). Grassland, shrub steppe, and desert are naturally occurring habitat types used by the species. In addition, burrowing owls may occur in some agricultural areas, ruderal grassy fields, vacant lots and pastures if the vegetation structure is suitable and there are useable burrows and foraging habitat in proximity. (Gervais et al, 2008)

The burrowing owl may utilize a site for breeding, wintering, foraging, and/or migration stopovers.

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TeraCor conducted a habitat suitability assessment (focused survey) in April 2019 to evaluate biological resources on the Project site to determine if suitable burrowing owl habitat was present on the site and to determine if burrows detected on the Project site could potentially be used by the burrowing owl. TeraCor generally concluded that suitable habitat was present but no signs of burrowing owl were detected during their focused surveys. In addition, TeraCor reviewed adjacent and surrounding properties via field investigation and aerial photograph investigation to determine overall habitat suitability for the burrowing owl. No owls were detected off, or near, the Project site. The correlation between soils on steep slopes on the Project site correlates strongly with areas that TeraCor considered unsuitable for burrowing owl occupation. All soils on-site except those found on slopes in excess of 25 percent gradient are considered topographically suitable for occupation by burrowing owls and other burrowing organisms. Soils found at steeper inclines are not suitable for burrowing owls.

TeraCor determined that approximately 445 acres on the Project site were suitable for burrowing owl habitat and consisted of open, generally level, gently-sloping or rolling terrain, and arroyo bottoms. A California Natural Diversity Data Base search resulted in a number of historic recorded sightings of burrowing owl for the Ritter Ridge, California Quadrangle. There were two occurrences within a three-mile radius of the Project site, but none were current. The closest sighting occurred in 1999 approximately one-half mile to the west-northwest in what is now the Anaverde residential development. A second occurrence was noted three miles to the north in 2006.

TeraCor did not observe any burrowing owls during the course of its focused surveys and recorded no evidence or sign of burrowing owl occupation. TeraCor did record a number of California ground squirrel burrows and burrow complexes on the Project site, but no burrowing owl utilization signs were detected within or near any of the burrows. Therefore, survey results were negative for burrowing owl on the Project site. In addition, burrowing owls were not detected off the Project site.

4.4.6 *REGULATORY STATUS SPECIES*

The 30 Regulatory Status/CNPS-listed plants that may be present on the Project site are listed in the following **Table 4.4-9 (Regulatory Status/CNPS - Listed Plants)**. Each species' regulatory status, rarity, life history, habitat description and presence on the Project site are discussed.

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Environmental Impacts – Biological Resources

Table 4.4-9 – Regulatory Status/CNPS - Listed Plants

<i>Species</i>	<i>Regulatory Status</i>	<i>Species Status on the Project Site, Life History & Habitat Description</i>
PLANTS		
<i>Short-joint beavertail (Opuntia basilaris var. brachyclada)</i>	CNPS Rare Plant Rank 1B.2 <i>This species has no formal listing status</i>	<i>Present. This variety of the common species of beavertail (Opuntia basilaris), is known from the north slopes of the San Bernardino, San Gabriel Mountains, as well as other scattered localities in southern California. Average joints (pads) of O.b. var. brachyclada are shorter and more cylindrical to club-shaped in cross section than are those of O.b. var basilaris, with brachyclada pad length greater than twice the width, and the width is less than twice the thickness. Areoles counted diagonally across mid-pad width is greater than eight in basilaris, and less than eight in brachyclada. The two varieties may intergrade; Mistretta (1991; see References) states that "... the complete range of characteristics ... has been found in the populations investigated... given the difficulties associated with differentiating between these two varieties.... [we] will adopt the elevational parameter of Benson (1982), and assume that all occurrences of O. basilaris above 3000 ft. are O.b. brachyclada." TeraCor encountered beavertail at a number of locations and elevations and noted variations described above. Some variation in thickness could have been due to hydration differences. They concluded a large number of Opuntia showed introgression from brachyclada, which they presume was the basis for GLA's identification/mapping. GLA mapped 54 occurrences; 24 would be affected. For purposes of continuity, they have included GLA's mapping of O.b. brachyclada. A mitigation salvage plan, including confirmation of counts and GPS-based locational data, should be prepared and submitted to CDFW for approval prior to Project implementation.</i>
<i>Peirson's morning-glory (Calystegia peirsonii)</i>	CNPS Rare Plant Rank 4.2 <i>This species has no formal governmental listing status</i>	<i>Present. This perennial rhizomatous herb intergrades with several other species of the same genus. It occurs on rocky slopes, chaparral, chenopod scrub, cismontane woodland, coastal scrub, lower montane coniferous forest, and valley and foothill grasslands between 30 and 1500 meters. It blooms from April through June. Jepson notes the species is present in the northern San Gabriel Mountains and the Antelope Valley. This species was detected on-site. TeraCor mapped approximately 17 acres of annual grassland and scrub habitats containing this plant; the Project would affect approximately 15 acres.</i>
<i>Piute Mountains navarretia (Navarretia setiloba)</i>	CNPS Rare Plant Rank 1B.1 <i>This species has no formal federal or state governmental listing status</i>	<i>Not Present. This species ranges from the southern Sierra Nevada, southern San Joaquin Valley, and northern part of the Western Transverse Ranges, occurring from 500 to 2100 meters in elevation. It is found in depressions in clay or gravelly loam. It flowers from April through July. Although marginally suitable habitat is present, this species was not detected on-site.</i>

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Table 4.4-9 – Regulatory Status/CNPS - Listed Plants

<i>Species</i>	<i>Regulatory Status</i>	<i>Species Status on the Project Site, Life History & Habitat Description</i>
<i>Palmer's mariposa lily</i> (<i>Calochortus palmeri</i> var. <i>palmeri</i>)	CNPS Rare Plant Rank 1B.2 This variety has no formal federal or state governmental listing status	Not Present. This mariposa lily occurs in wet meadows and other mesic sites in chaparral and lower coniferous forest from 710 meters up to 2390 meters in elevation. The variety's geographic distribution includes the San Jacinto Mountains, Tehachapi Mountains, the Transverse Ranges, and Central Western California. The site may be too dry to support this variety; there are no records for the Liebre Mountains. This variety was not detected.
<i>San Bernardino aster</i> (<i>Symphytotrichum defoliatum</i>)	CNPS Rare Plant Rank 1B.2 This species has no formal federal or state governmental listing status.	Not Present. This perennial rhizomatous herb is known to occur in a variety of habitats and elevations below 2050 meters, including vernal mesic grassland, marshes and swamps, cismontane woodlands and coastal scrub. It typically blooms late in the year, from July to November, and can easily be overlooked. Suitable habitat is not present, and this species was not detected on-site.
<i>Greata's aster</i> (<i>Symphytotrichum greatae</i>) Formerly known as <i>Aster greatae</i>	CNPS Rare Plant Rank 1B.3 This species has no formal federal or state governmental listing status	Not Present. This rhizomatous herb occurs primarily in the San Gabriel Mountains at elevations ranging from 300 to 2010 meters. This species occurs in chaparral and woodland habitats, and is often associated with damp canyons. Greata's aster blooms from June to October. Although marginally suitable habitat is present, the subject property is outside of this species' known geographic range. This species was not detected on-site.
<i>Mt. Pinos onion</i> (<i>Allium howellii</i> var. <i>clokeyi</i>)	CNPS Rare Plant Rank 1B.3 This subspecies has no formal federal or state governmental listing status	Not Present. Rare in southern California. This perennial bulbiferous herb is found on open slopes, sagebrush scrub, vertic clay; From 1300 to 1850 meters. Known primarily from the western Transverse Ranges to the northwest of the project site, the nearest record is Castaic Canyon (1934; Jepson eFlora).
<i>Tehachapi monardella</i> (<i>Monardella linoides</i> ssp. <i>oblonga</i>)	CNPS Rare Plant Rank 1B.3 This variety has no formal federal or state governmental listing status	Not Present. This taxa occurs in chaparral, conifer woodland to forest, gravelly, dry slopes, flats from 1500 to 2600 meters. Range is in the Tehachapi and western Transverse range mountains. It is not recorded in the Liebre Mountains. This monardella occurs above the elevational range of the project site, and was not detected on-site.
<i>Salt Spring checkerbloom</i> (<i>Sidalcea neomexicana</i> subsp. <i>thurberi</i>)	CNPS Rare Plant Rank 2B.2 This species has no formal federal or state governmental listing status.	Not Present. Salt Spring checkerbloom is found in alkaline springs, marshes, generally below 1500 meters. Its distribution includes the western Transverse ranges, San Gabriel through San Bernardino and Peninsular ranges. Boyd indicates the closest record to the project site is toward the west end of the Liebre's: "Summit of highway through San Francisquito Canyon to Lake Hughes." (1931). There is no suitable habitat on the subject property and this taxon was not detected on-site.

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Table 4.4-9 – Regulatory Status/CNPS - Listed Plants

<i>Species</i>	<i>Regulatory Status</i>	<i>Species Status on the Project Site, Life History & Habitat Description</i>
<i>California androsace</i> (<i>Androsace elongata</i> ssp. <i>acuta</i>)	CNPS Rare Plant Rank 4.2 <i>This subspecies has no formal federal or state governmental listing status</i>	<i>Not Present. Very rare in Southern California. This annual herb is found in chaparral, cismontane woodland, and coastal scrub. Jepson reports a historic broad distribution, occurring from Oregon to Baja California, specifically in the South Coast region, on dry grassy slopes below 1200 meters. Highly localized and often overlooked; many occurrences extirpated as specifically noted by the CNPS. Possibly threatened by grazing, trampling, non-native plants, alteration of fire regimes, recreational activities, and wind energy development. However, Boyd notes collections in the Anaverde Valley at 3,200 feet msl in 1998. Although suitable habitat is present, this subspecies was not detected on-site by GLA or TeraCor.</i>
<i>Crowned muilla</i> (<i>Muilla coronata</i>)	CNPS Rare Plant Rank 4.2 <i>This species has no formal federal or state governmental listing status</i>	<i>Not Present. This species occurs in an array of habitats which include desert scrub, Joshua tree woodland, chenopod scrub, and piñon-juniper woodlands. It occurs at high elevations ranging from 670 to 1960 meters. This species was not detected on-site.</i>
<i>Golden goodmania</i> (<i>Goodmania luteola</i>)	CNPS Rare Plant Rank 4.2 <i>This species has no formal federal or state governmental listing status</i>	<i>Not Present. This annual herb occurs in clay or alkaline conditions in grasslands, desert scrub, meadows and playas between 20 and 2200 meters. The organism is known from the southern San Joaquin Valley, the Owens Valley and western Mojave Desert. The closest record to the project site is to the northwest in Antelope Valley, CA. two miles west of SR-14 along SR-138. Marginally suitable habitat is present. This species was not detected on-site.</i>
<i>Humboldt Lily</i> (<i>Lilium humboldtii</i> ssp. <i>ocellatum</i>)	CNPS Rare Plant Rank 4.2 <i>This species has no formal federal or state governmental listing status</i>	<i>Not Present. This taxa occurs in oak canyons, chaparral, and yellow-pine forest, below 1800 meters. It flowers from March to August. There is a record from “Liebre Mountains: Lower Red Fox Canyon near its confluence with Elizabeth Lake Canyon” in “Riparian elements on moist stream, channel [chaparral] elements on adjacent slopes” (1995) well to the west of the project site. The limited riparian habitat for this taxon is very limited on-site. The plant was not detected.</i>
<i>Mojave spineflower</i> (<i>Chorizanthe spinosa</i>)	CNPS Rare Plant Rank 4.2 <i>This species has no formal governmental listing status</i>	<i>Not Present. This annual herb occurs in desert habitats. Its elevation range is from six to 1300 meters. This species flowers from March through July. There are records from the Antelope Valley floor to the north of the project site. Marginally suitable habitat is present, but the subject property is mostly above the subspecies’ known elevational range. This species was not detected on-site.</i>
<i>Sylvan microseris</i> (<i>Microseris sylvatica</i>)	CNPS Rare Plant Rank 4.2 <i>This variety has no formal federal or state governmental listing status</i>	<i>Not Present. A perennial herb found in grassland, chaparral and open woodlands below 1700 meters. Ranges through both coastal and Sierran ranges from northern California south to the western Transverse ranges. Recorded from hills south of Highway 138, near Neenach School (2008) and an historic collection from Elizabeth Lake, well west of project site in 1887. Otherwise not known from the Liebre Mountains and not detected on-site.</i>

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Table 4.4-9 – Regulatory Status/CNPS - Listed Plants

<i>Species</i>	<i>Regulatory Status</i>	<i>Species Status on the Project Site, Life History & Habitat Description</i>
<i>Adobe yampah</i> (<i>Perideridia</i> <i>pringlei</i>)	CNPS Rare Plant Rank 4.3 <i>This species has no formal federal or state governmental listing status</i>	<i>Not Present. This species is known to occur in the Tehachapi Mountains, South Coast Ranges, and the western Transverse Ranges. Adobe yampah occurs on serpentine outcrops and clay soils at an elevation range of 300 to 1800 meters. This species blooms from April to June, and less commonly through July. There are records just south of the site in the eastern Liebre Mtns, Sierra Pelona, northwest of Vincent and Soledad Pass. Serpentine and clay substrates are not present, and this species was not detected on-site.</i>
<i>Chickweed</i> <i>oxytheca</i> (<i>Sidotheca</i> <i>caryophylloides</i>) <i>Formerly known</i> <i>as Oxytheca</i> <i>caryophylloides</i>	CNPS Rare Plant Rank 4.3 <i>This species has no formal federal or state governmental listing status.</i>	<i>Not Present. This species occurs in montane environments at an elevation range of 1300 to 2600 meters in coniferous forests. Suitable habitat is not present, and the subject property is outside of this species' known geographic range. This species has not been recorded in the Liebre Mountains, and was not detected on-site.</i>
<i>Club-haired</i> <i>mariposa lily</i> (<i>Calochortus</i> <i>clavatus</i> var. <i>clavatus</i>)	CNPS Rare Plant Rank 4.3 <i>This variety has no formal federal or state governmental listing status</i>	<i>Not Present. This perennial bulbiferous herb is usually found in serpentinite, clay and rocky soils in chaparral, coastal scrub, cismontane woodlands, and open grasslands from 75 to 1300 meters and blooms from May through June. Los Angeles County appears to be the southern extent of this variety's range. Boyd notes it is recorded from the coastal side of Liebre Mountains but not the desert side. Although habitat on- site appears structurally suitable, this variety was not expected or detected on-site.</i>
<i>Interior bush</i> <i>lupine</i> (<i>Lupinus</i> <i>excubitus</i> var. <i>johnstonii</i>)	CNPS Rare Plant Rank 4.3 <i>This variety has no formal federal or state governmental listing status</i>	<i>Not Present. This variety occurs on decomposed granitic substrates in chaparral and under pines only in the San Gabriel Mountains, with an elevational range of 1500 to 2500 meters. Decomposed granitic substrates are not present, and the subject property is outside of this variety's known geographic and elevational range. This variety was not detected on-site.</i>
<i>Jepson's</i> <i>bedstraw</i> (<i>Galium</i> <i>jepsonii</i>)	CNPS Rare Plant Rank 4.3 <i>This species has no formal federal or state governmental listing status</i>	<i>Not Present. Jepson's bedstraw is found in open woodlands and granitic, rocky areas within lower and upper montane coniferous forest of the Transverse Ranges at elevations between 1540 and 2500 meters. Suitable habitat is not present, and the subject property is below this species' known elevational range. This species was not detected on-site.</i>
<i>Johnston's</i> <i>bedstraw</i> (<i>Galium</i> <i>johnstonii</i>)	CNPS Rare Plant Rank 4.3 <i>This species has no formal federal or state governmental listing status</i>	<i>Not Present. This species is found in the San Gabriel and San Bernardino Mountains at an elevation range of 1650 to 2300 meters. Habitat consists of chaparral, lower montane coniferous forest, pinyon and juniper woodland and riparian woodland. Although structurally suitable habitat is present, the subject property is outside of this species' known geographic range. This species was not detected on-site.</i>

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Table 4.4-9 – Regulatory Status/CNPS - Listed Plants

<i>Species</i>	<i>Regulatory Status</i>	<i>Species Status on the Project Site, Life History & Habitat Description</i>
<i>Lemmon's syntrichopappus (Syntrichopappus lemmonii)</i>	CNPS Rare Plant Rank 4.3 <i>The species has no formal federal or state governmental listing status</i>	<i>Not Present. This species occurs on open, sandy to gravelly areas often in chaparral. Its elevation range is 500 to 1830 meters. There is a nearby occurrence to project site at "five miles southwest of Palmdale" (1935) and more recent record from the San Gabriel Mountains to the east. Although structurally suitable habitat is present, this species was not detected on-site.</i>
<i>Mason's neststraw Stylocline masonii</i>	CNPS Rare Plant Rank 4.3 <i>This species has no formal federal or state governmental listing status.</i>	<i>Not Present. This species occurs in open loose sand of washes and flats from 100 to 1200 meters. In southern California it is distributed through the South Coast ranges and western Transverse ranges. Boyd notes it was collected to the south of the project site in a "wash 2600 feet. south-southeast of Acton (Soledad Canyon (in the headwaters of the Santa Clara River. wash system) (1991)." Structurally suitable habitat is present, but this species was not detected on-site.</i>
<i>Mojave Indian paintbrush (Castilleja plagiotoma)</i>	CNPS Rare Plant Rank 4.3 <i>This species has no formal governmental listing status</i>	<i>Not Present. This hemiparasitic perennial herb occurs between 300 and 2500 meters, and is generally associated with alluvial Great Basin scrub, piñon woodland, Joshua tree woodland, and coniferous forests. While suitable habitat is present, this species was not detected on-site.</i>
<i>Mojave phacelia (Phacelia mohavensis)</i>	CNPS Rare Plant Rank 4.3 <i>This species has no formal federal or state governmental listing status.</i>	<i>Not Present. This species occurs on sandy or gravelly soils, often associated with dry streambeds, within cismontane woodland and coniferous forest. Its elevation range is 900 to 2570 meters. Marginally suitable habitat is present, but the subject property is outside of this species' known geographic range. This species was not detected on-site.</i>
<i>Silvery false lupine (Thermopsis californica var. argentata)</i>	CNPS Rare Plant Rank 4.3 <i>The variety has no formal federal or state governmental listing status</i>	<i>Not Present. This variety occurs at elevations of 665 to 1595 meters. Habitats include cismontane woodlands, coniferous forests and piñon-juniper woodlands. There are records from the western end of the Liebre Mountains (Boyd, 1999) such as: "Liebre Mountain: north slope from summit near the beginning of Horse Camp Canyon drainage". Suitable habitat is marginally present. This variety was not detected on-site.</i>
<i>Tehachapi ragwort (Packera ionophylla) Formerly known as Senecio ionophyllus</i>	CNPS Rare Plant Rank 4.3 <i>The species has no formal federal or state governmental listing status</i>	<i>Not Present. This perennial herb generally occurs within coniferous forests on rocky, granitic substrates. Its elevation range is 1500 to 2700 meters. Suitable habitat is not present, and the subject property is outside of this species' known geographic and elevational range. This species was not detected on-site.</i>
<i>Transverse Range phacelia (Phacelia exilis)</i>	CNPS Rare Plant Rank 4.3 <i>This species has no formal federal or state governmental listing status</i>	<i>Not Present. This species is known to occur in the southern Sierra Nevada Mountains, San Gabriel, and San Bernardino Mountains. It occurs on sandy or gravelly slopes, flats, meadows and coniferous forests at an elevation range of 1100 to 2700 meters. The property is at the low end of the species elevational range and it was not detected on-site.</i>

Section 4.4

Environmental Impacts – Biological Resources

Table 4.4-9 – Regulatory Status/CNPS - Listed Plants

<i>Species</i>	<i>Regulatory Status</i>	<i>Species Status on the Project Site, Life History & Habitat Description</i>
<i>Round-leaved filaree (California macrophylla)</i>	<i>CNPS Rare Plant Rank Formerly 1B.1 now CBR (Considered But Rejected) This species has no formal federal or state governmental listing status</i>	<i>Not Present. This annual herb blooms from March through May and occurs in clay soils in primarily cismontane woodland and valley and foothill grassland between 15 and 1200 meters above msl. It has a broad distribution throughout central and southern California. Clay soils required by this species are not present on-site. This species was not detected on-site.</i>
<i>Slender mariposa lily (Calochortus clavatus var. gracilis)</i>	<i>CNPS Rare Plant Rank 1B.2 This variety has no formal federal or state governmental listing status</i>	<i>Not Present. This variety is found in chaparral, coastal scrub & grasslands. It blooms from March to June, and occurs from 320 to 1000 meters in elevation. The closest occurrence in the Leibere Mountains is from Portal Ridge to the west (2010). Suitable habitat may be present on lower north-facing slopes, but the site is above known elevational occurrence. This variety was not detected.</i>
<i>California spineflower (Mucronea californica)</i>	<i>CNPS Rare Plant Rank 4.2 This species has no formal federal or state governmental listing status</i>	<i>Not Present. The California spineflower occurs in a relatively broad distribution across southwestern California, which includes the central and southern coast and southern interior valleys and mountains. This species occurs in sandy conditions within coastal scrub and chaparral below 1400 meters. Although structurally suitable habitat is present, this species was not detected on-site.</i>

Source: General Biological Assessment for the 878.1-Acre Quail Valley Planned Development Project prepared by TeraCor Resource Management dated February 12, 2020

Section 4.4

Only two of the 30 CNPS-listed plants in **Table 4.4-9** were found to be present on the Project Site by TeraCor in 2019, or by GLA in several surveys conducted between February 2005 and 2014. They are the Short-joint beavertail cactus and Peirson's morning glory, and are discussed below.

1. Short-Joint Beavertail Cactus

GLA's Habitat Assessment Report for the Quail Valley Project dated August 28, 2017, found that 42 individual short-joint beavertail cactus were present on-site. The CNPS lists the species as Rare Plant Rank 1B.2, meaning that the group considers it rare, threatened or endangered in California and elsewhere, and indicates the degree of threat to it. The threat level is believed to be moderate in California (20 to 80 percent of occurrences threatened/moderate degree and immediacy of threat). The state of California has not, itself, listed the species as Endangered, threatened, rare or a candidate for those classifications. GLA's occurrence mapping are assumed to be current given the persistence of the cactus over time, and are shown on **Exhibit 4.4-6 (Impacts to Special Status Plants)**.

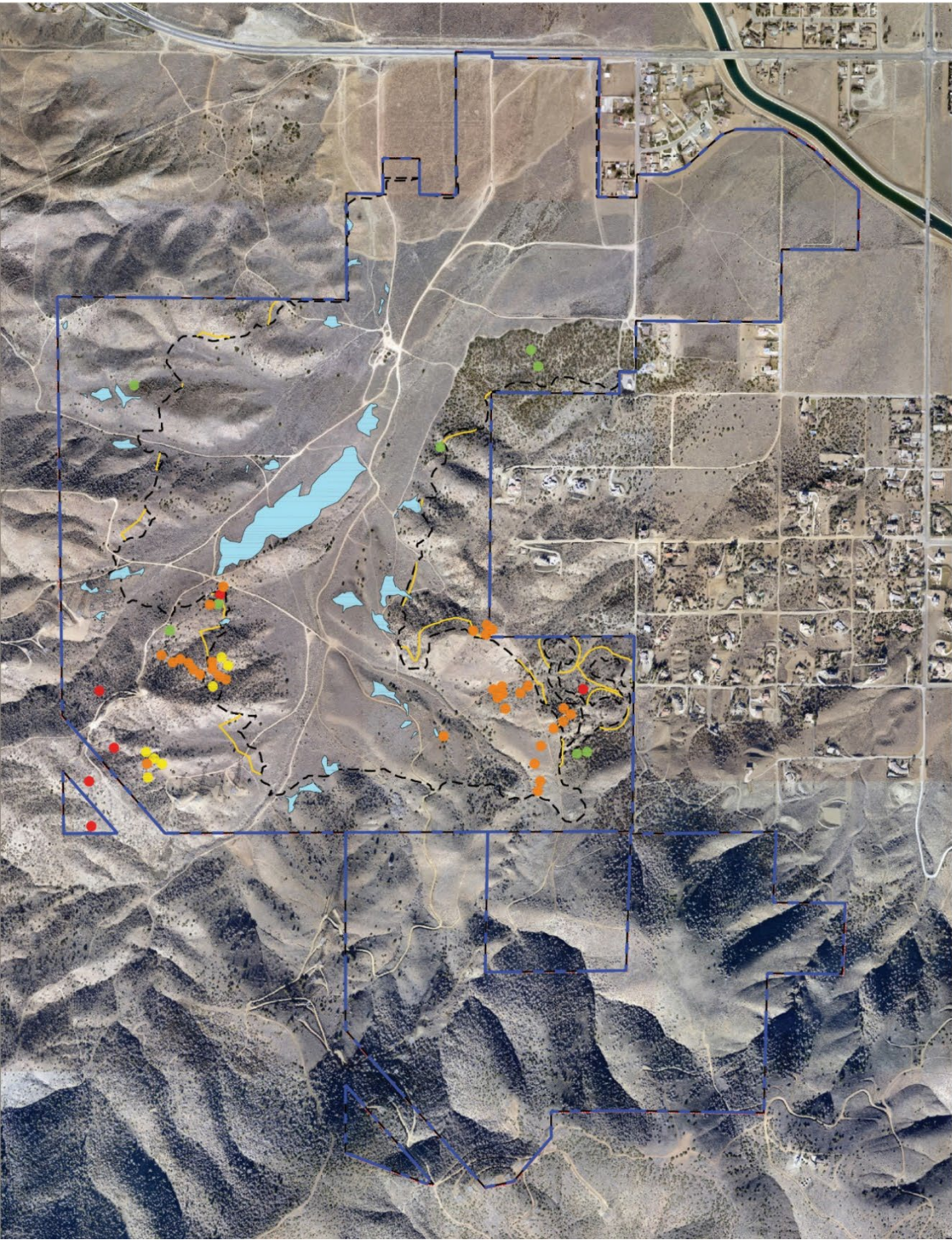
2. Peirson's Morning-Glory

Peirson's morning-glory is ranked by the CNPS as a Rare Plant Rank 4.2 species, meaning the group considers it a plant of limited distribution (a watch list) and moderately threatened in California (20 to 80 percent of occurrences threatened/moderate degree and immediacy of threat). The state of California has not, itself, listed the species as rare or a candidate for any protected classification. GLA mapped Peirson's morning-glory and found a total of approximately 38 occupied acres. TeraCor mapped this plant again in 2019 because of possible annual fluctuations in its distribution and found approximately 17 acres to be occupied by Peirson's morning-glory. Refer to **Exhibit 4.4-6 (Impacts to Special Status Plants)** for TeraCor's survey findings for Peirson's morning-glory, as well as for GLA's distribution mapping of short-joint beavertail.

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EXHIBIT 4.4-6 – IMPACTS TO SPECIAL STATUS PLANTS



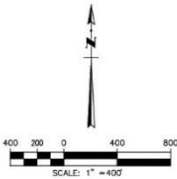
LEGEND

- PROJECT BOUNDARY LINE
- DAYLIGHT GRADING LINE
- FUEL MODIFICATION LINE
- PEIRSON'S MORNING GLORY POLYGON
- SHORT-JOINT BEAVERTAIL CACTUS (UNBURNED) – 2005
- SHORT-JOINT BEAVERTAIL CACTUS (BURNED) – 2005
- SHORT-JOINT BEAVERTAIL CACTUS – 2008
- SHORT-JOINT BEAVERTAIL CACTUS – 2014

*NOTE: LOCATIONS FOR OPUNTIA BASILARIS VAR. BRACHYCLADA WERE IDENTIFIED BY GLEN LUKOS ASSOCIATES, INC., (2005, 2008, AND 2014)

DATA TABLE (IMPACTED)

SYMBOL	VEGETATION TYPE	AMOUNT
	SHORT-JOINT BEAVERTAIL CACTUS (UNBURNED) – 2005	3 EA
	SHORT-JOINT BEAVERTAIL CACTUS (BURNED) – 2005	0 EA
	SHORT-JOINT BEAVERTAIL CACTUS – 2008	3 EA
	SHORT-JOINT BEAVERTAIL CACTUS – 2014	18 EA
	PEIRSON'S MORNING-GLORY	14.97 AC



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Section 4.4

The following **Table 4.4-10 (Regulatory Status Animals)** identifies the federal and state listed threatened, endangered wildlife species, and species of special concern that have a high, moderate, or low potential to occur within the Project site. The table also includes a discussion of the species' life history and required habitat.

Table 4.4-10 – Regulatory Status Animals		
<i>Species</i>	<i>Regulatory Status</i>	<i>Species Status on the Project Site/ Life History/Habitat Description</i>
REPTILES		
<p><i>Coast Horned Lizard</i> (<i>Phrynosoma blainvillii</i>)</p> <p><i>Formerly known as the coast (San Diego) horned lizard (Phrynosoma coronatum) – blainvillii population</i></p>	SSC (Species of Special Concern)	<p><i>High. Favorable habitat for this lizard includes open, flat, sandy areas in which several colonies of harvester ants (Pogonomermex spp.) are established. Harvester ants are the coast horned lizard's preferred prey item. Plant communities associated with habitation of the coast horned lizard include coastal sage scrub, chaparral and open woodlands. Species recorded by GLA, and suitable habitat for this species is present on the subject property, suggesting a high probability of occurrence. Not detected by TeraCor biologists</i></p>
<p><i>Coast Patch-Nosed Snake</i> (<i>Salvadora hexalepis virgulata</i>)</p>	SSC	<p><i>High. The coast patch-nosed snake is active during the day, even in times of extreme heat. This subspecies is infrequently encountered, and is found in the lower slopes of dry scrub, chaparral, and oak woodland habitats, in rocky, sandy areas. It feeds upon lizards and small mammals. Habitats on the subject property are suitable to favorable, and this subspecies has a high possibility of occurrence on-site.</i></p>
<p><i>Silvery Legless Lizard</i> (<i>Anniella pulchra pulchra</i>)</p>	SSC	<p><i>High. This burrowing species of lizard feeds upon small, soft-bodied arthropods. Habitats for this species primarily consist of the lower layers of chaparral or oak woodland leaf duff and less often along stream courses in loose alluvium. This habitat predilection makes the organism somewhat difficult to detect. Suitable habitat for this species is present and is associated with chaparral and scrub oak woodlands and possibly within sandy areas with a substantive organic surface layer. The project site may be "part of the disjunct Mohave Desert population of A. pulchra east of the Tehachapis and north of the San Gabriel Mountains" (CNDDB Palmdale Quad).</i></p>
<p><i>Rosy boa</i> (<i>Charina trivirgata</i>)</p>	SSA (State Special Animal)	<p><i>High. The rosy boa requires habitats with a mix of brushy cover and rocky soil such as coastal canyons and hillsides, desert canyons, washes and mountain in the desert and chaparral from the coast to the Mojave and Colorado Deserts. Suitable habitat is present throughout scrub, chaparral and woodland habitats on-site, and so it likely occurs on-site.</i></p>
<p><i>California Mountain Kingsnake (San Diego population)</i> (<i>Lampropeltis zonata [pulchra]</i>)</p> <p><i>Formerly known as the San Diego mountain kingsnake (Lampropeltis zonata pulchra)</i></p>	SSC	<p><i>Moderate. The California mountain kingsnake inhabits mountainous regions across Southern California. It prefers moist woods, coniferous forests, oak woodlands, and chaparral above 1000 meters. They are quite secretive, residing in rock crevices or beneath rock and debris piles. They may also utilize rotting logs and seek cover under dense shrubs. Higher elevation woodland cells on-site may provide habitat for this species.</i></p>

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Environmental Impacts – Biological Resources

Table 4.4-10 – Regulatory Status Animals

<i>Species</i>	<i>Regulatory Status</i>	<i>Species Status on the Project Site/ Life History/Habitat Description</i>
<i>San Bernardino ring-neck snake (Diadophis punctatus modestus)</i>	SSA	<i>Moderate. This small, slender snake is a secretive subspecies. It will inhabit a range of habitat types, including moist meadows, rocky hillsides, gardens, grassland, chaparral, and mixed woodlands. The Antelope Valley is generally considered outside of its' range, but it might occur in more moist areas on the site, particularly in drainages and on north-facing inclines outside of the development footprint.</i>
<i>Western Pond Turtle (Emys marmorata)</i> <i>Formerly known as Clemmys marmorata pallida</i>	SSC	<i>Not Present. The western pond turtle inhabits permanent or nearly permanent bodies of water in a number of habitat types below 1830 meters. It requires basking sites such as logs, rocks, vegetation mats, or open mud banks. Suitable habitat is not present on the subject property as drainages are ephemeral. This species is not present on-site.</i>
AMPHIBIANS		
<i>Arroyo Toad (Anaxyrus californicus)</i> <i>Formerly known as the arroyo southwestern toad (Bufo microscaphus californicus)</i>	FE (Federally listed as endangered; SSC	<i>Not Present. The arroyo toad breeds in sandy river washes and arroyos; hence, the name arroyo toad. This species has a very specialized breeding habitat in that it requires shallow, slow moving water or overflow pools within a stream system comprised of silt-free sandy or gravelly substrates. This species also requires streamside terraces for burrowing. Suitable breeding habitat is not present on the subject property</i>
<i>Western spadefoot (Spea hammondi)</i> <i>Formerly known as the western spadefoot toad (Scaphiopus hammondi)</i>	SSC	<i>Low. This species is generally found in washes, lowlands stream courses, floodplains, and vernal pools. Preferred habitat associations include chaparral, oak woodland, coastal sage scrub, riparian woodland, and grassland. The western spadefoot breeds in seasonal ponds and vernal pools in both upland and lowland areas. This species is active later in the season than other amphibians (i.e., April-June). The species is primarily coastal in distribution and is "apparently extinct throughout much of lowland Southern California but still persists in coastal Orange, west Riverside, and inland San Diego Counties." Stebbins & McGinnis (2018). The habitat on the subject property is not suitable due to lack of sustained water resources on-site.</i>
<i>Costa's hummingbird (Calypte costae)</i>	SSA (Nesting)	<i>High. The subject property is located within the year-round range of this hummingbird species. Costa's hummingbird primarily occurs in the desert and semi-desert; but also occurs in arid brushy foothills and chaparral, and in adjacent mountains and open meadows and gardens during migration and winter. This species has a reasonable probability of occurrence on-site.</i>
<i>Grasshopper sparrow (Ammodramus savannarum)</i>	SSC (Nesting) Second Priority	<i>Moderate (Nesting). This species, in the west, prefers grasslands with sparse shrub cover. It occurs mainly on hillsides and mesas in coastal districts, but has bred up to 1,500 meters in the San Jacinto Mountains. Appropriate habitat is present on-site, but this sparrow is uncommonly observed.</i>
BIRDS		

Section 4.4

Environmental Impacts – Biological Resources

Table 4.4-10 – Regulatory Status Animals

<i>Species</i>	<i>Regulatory Status</i>	<i>Species Status on the Project Site/ Life History/Habitat Description</i>
<i>Long-eared owl (Asio otus)</i>	<i>SSC (Nesting) Third Priority</i>	<i>Moderate. This species is an uncommon yearlong resident throughout California, except the Central Valley and Southern California deserts where it is an uncommon winter resident. Riparian habitat is required for this species. The long-eared owl uses live oak (Quercus spp.), willow (Salix spp.), and salt cedar (Tamarix ramosissima) thickets as communal roosts. An important attribute of this species winter roosts seems to be dense vegetation for concealment and perhaps thermal cover. This species' roost groves are often adjacent to open habitats, which are used for foraging. GLA reported a nest of long-eared owl in the higher scrub oak habitat in 2005. This species has not been detected on-site by TeraCor biologists.</i>
<i>Lawrence's goldfinch (Spinus lawrencei)</i>	<i>SSA (Nesting)</i>	<i>Moderate. This species occurs in southern California year-round and has a preference for remote, arid habitats. Habitat for Lawrence's goldfinch consists of open oak savannah. Suitable nesting habitat is present. This species has a reasonable probability of nesting on the subject property due to the general suitability of valley floor grassland adjacent to Tucker oak cells, therefore, it could occur across most of the site. This species was not detected on-site by TeraCor or GLA. This notwithstanding, Lawrence's Goldfinch has a moderate potential of utilizing the subject property.</i>
<i>Chipping sparrow (Spizella passerina)</i>	<i>SSA (Nesting)</i>	<i>Moderate. This species occurs in a variety of habitats; however, in Southern California it generally occurs in grassy areas on the edge of woodlands (i.e., oak woodland, Eucalyptus, etc.). They forage mostly on seeds but will also take insects when available. This species nests in mid-story tree canopies. The chipping sparrow has not been detected on-site, however; it has a moderate potential to occur.</i>
<i>Southern California rufous-crowned sparrow (Aimophila ruficeps canescens)</i>	<i>SWL</i>	<i>Moderate. This secretive, medium-sized sparrow inhabits mainly coastal sage scrub habitats, preferring those dominated by California sagebrush, and mixed chaparral. It frequents relatively steep, often rocky hillsides with grass and forb patches. Suitable to favorable habitat is present in the mid-elevations on-site. There is one report from the Edison right-of-way "TRTP - Segment 5, Leona Valley East" (2010, e Bird). Not seen on-site.</i>
<i>Prairie falcon (Falco mexicanus)</i>	<i>SWL (Nesting)</i>	<i>Moderate. This species occurs throughout California; however, it does not breed along the immediate coastline and the northwest corner of the state. Prairie falcons inhabit primarily open habitats such as grasslands, savannahs, and open shrub. There are regular occurrences of prairie falcon in the Antelope Valley to the north and east of the project site. This species was not detected on-site but could be expected to occur, in low numbers, for foraging.</i>

Section 4.4

Environmental Impacts – Biological Resources

Table 4.4-10 – Regulatory Status Animals

<i>Species</i>	<i>Regulatory Status</i>	<i>Species Status on the Project Site/ Life History/Habitat Description</i>
<i>Loggerhead shrike (Lanius ludovicianus)</i>	SSC (Nesting) Second Priority	<i>Present. This species occurs in a variety of habitats, but prefers open areas with short vegetation. The subject property lies within the loggerhead shrike's year-round range and habitats are suitable. The loggerhead shrike is often referred to as the "butcher bird," because of its tendency to impale prey items on thorns or other sharp objects, to be consumed later. This species preys on arthropods, amphibians, and small reptiles, birds, and mammals. Loggerhead shrikes were found in low numbers on the site, usually in the central main arroyo over the blueline drainage. They were less common elsewhere on-site.</i>
<i>Yellow-breasted chat (Icteria virens)</i>	SSC (Nesting) Third Priority	<i>Present. This species prefers shrubby riparian habitats, especially in the vicinity of lowland watercourses. It occurs, usually in limited numbers, throughout suitable habitat in much of California. While typically suitable habitat is not present, one individual was detected in a desert olive grove on-site. Others may occur as spring migrants.</i>
<i>Oak titmouse (Baeolophus inornatus)</i>	SSA (Nesting)	<i>Present. The oak titmouse resides in warm, open, dry oak or oak-pine woodlands from southern Oregon to Baja California. It will use scrub oaks or other brush as long as woodlands are nearby. Oak titmice eat seeds and other plant materials as well as insects and other invertebrates and suitable habitat is present on-site. One oak titmouse was detected on-site during 2019 surveys.</i>
<i>Lark sparrow (Chondestes grammacus)</i>	SSA (Nesting)	<i>Present. The subject property is within the lark sparrow's year-round range. This species is a habitat generalist and occurs in sage scrub and grasslands. This species often inhabits the nests of other birds, most notably the northern mockingbird (<i>Mimus polyglottos</i>) and California thrasher (<i>Toxostoma redivivum</i>), both of which are confirmed present on -site. This species will also construct simple ground nests on bare soil. This sparrow was frequently observed in lower elevation areas.</i>
<i>Least Bell's vireo (Vireo bellii pusillus)</i>	FE; SE	<i>Low. This riparian-obligate subspecies generally requires less-disturbed areas of dense willow-associated riparian habitat and prefers areas with standing water. Suitable riparian habitat is not present on the subject property. This species has limited potential to occur on site as a migrant.</i>
<i>Tricolored blackbird (Agelaius tricolor)</i>	SE (State listed as Endangered); SSC (Nesting Colonies Only) First Priority	<i>Low (Nesting). The tricolored blackbird occurs in Southern California along the coast and at some inland localities. The habitat for the tricolored blackbird is both brackish and freshwater marshes. This species forms the largest nesting colonies of any Passerine bird in the United States. The species has declined primarily from habitat loss, which often results in enormous nest failure due to its colonial nesting habit. The nearest reported records to the project site are from Lake Palmdale to the east (numerous reports through 2015, eBird) and several sightings of birds at the Anaverde Community several miles west of the site in June-July 2011 (eBird). TeraCor biologists twice had brief, distant views of foraging flocks on site that were likely this species. Nesting habitat is not present on-site, however individuals may forage in the low grassland areas on occasion.</i>

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Environmental Impacts – Biological Resources

Table 4.4-10 – Regulatory Status Animals

<i>Species</i>	<i>Regulatory Status</i>	<i>Species Status on the Project Site/ Life History/Habitat Description</i>
<i>Golden eagle (Aquila chrysaetos)</i>	<i>SFP (Fully Protected); SWL (Nesting and Wintering)</i>	<i>Low. This species nests and winters in cliff walls, large trees, and foothill and mountain areas supporting sage-juniper and desert vegetation. Structurally suitable nesting habitat is present in higher elevation rock walls but it is unlikely eagles nest on-site. This species may occasionally forage on-site.</i>
<i>White-tailed kite (Elanus leucurus)</i>	<i>SFP (Nesting)</i>	<i>Low. This species is a common to uncommon, yearlong resident in coastal and valley lowlands throughout California. It occurs in low elevation grassland, agricultural, wetland, or oak-woodland habitats. Riparian areas adjacent to open areas are also used by this species. Kites occur in low numbers at sites in the Antelope Valley to the north and east of the project site. Although suitable habitat is present, the white-tailed kite was not detected on-site and would not be expected to nest on the subject property due to lack of suitable nesting habitat.</i>
<i>Gray vireo (Vireo vicinior)</i>	<i>SSC (Nesting)</i>	<i>Low. Gray vireo is found almost exclusively on dry hillsides with scattered junipers (Juniperus spp.). Very rare in Los Angeles County. This species was not detected on-site.</i>
<i>Summer tanager (Piranga rubra)</i>	<i>SSC (Nesting) First Priority</i>	<i>Low. In California, this species occurs primarily along the Colorado River where numbers have declined. The summer tanager was once a common breeding bird in California, but with the loss and fragmentation of its habitat (i.e., mature riparian woodland with extensive cottonwood canopy) it now has a very limited distribution. Suitable tall wooded or riparian habitat is absent; therefore the summer tanager would be an unlikely transient on-site.</i>
<i>Mountain plover (Charadrius montanus)</i>	<i>SSC (Wintering) Second Priority</i>	<i>Low. A winter resident in California, the mountain plover is currently primarily found in the Imperial Valley and Antelope Valley, California. Historically, large numbers of mountain plovers wintered on dry plain between the Pacific Ocean and Los Angeles. Wintering populations prefer agricultural fields, such as alfalfa; however, historically this species preferred native grassland plains. Suitable nesting habitat is not present on the subject property. While this species would not nest on-site, individuals could potentially be found in the low, open grasslands in winter. Not detected on-site.</i>
<i>Yellow warbler (Setophaga petechia)</i> <i>Formerly known as Dendroica petechia brewsteri</i>	<i>SSC (Nesting) Second Priority</i>	<i>Low. This species breeds in Southern California in the dense understory of riparian thickets. Yellow warbler populations have been severely impacted by brown-headed cowbird parasitism. Suitable riparian nesting habitat is not present on the subject property but the species could occur in migration.</i>
<i>Yellow-headed blackbird (Xanthocephalus xanthocephalus)</i>	<i>SSC (Nesting) Third Priority</i>	<i>Low. This colonial nester occurs in wetland habitats, around dense marshland, lakes, and ponds. In winter, this species often forms large, sex-specific flocks. No suitable nesting habitat is present on the subject property. This species would not nest on-site and has low potential to occur as a migrant.</i>

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Environmental Impacts – Biological Resources

Table 4.4-10 – Regulatory Status Animals

<i>Species</i>	<i>Regulatory Status</i>	<i>Species Status on the Project Site/ Life History/Habitat Description</i>
<i>Vaux's swift</i> (<i>Chaetura vauxi</i>)	SSC (Nesting)	Low (Low Migratory Occurrence Potential). This species requires coniferous forest habitat for breeding, principally redwood (<i>Sequoia sempervirens</i>) and Douglas fir (<i>Pseudotsuga menziesii</i>). Preferred breeding grounds for this species are in Northern California, from the Oregon border south to Sonoma County. They nest in trees with natural cavities, or burned-out hollow trees. Flocks of these birds will pass through most of California during migration, and will often use chimneys and crevices in tall buildings for nightly roosts. Although somewhat suitable nesting habitat is present, the subject property is located outside of this species' known breeding range; therefore, this species would not be expected to nest on the site. The Vaux's swift may, however, utilize the site as a migratory stopover.
<i>Olive-sided flycatcher</i> (<i>Contopus cooperi</i>)	SSC (Nesting)	Low (Low Migratory Occurrence Potential). This species breeds from the Oregon border south to San Luis Obispo County, and sporadically in Southern California mountain ranges (i.e., San Gabriel Mountains, San Bernardino Mountains, and San Jacinto Mountains). As a transient, this species occurs throughout California. It is known to breed in Santa Barbara and Ventura Counties in well-wooded canyons, but is more common in higher elevation forested habitats. It commonly occurs on habitat edges, near openings. The olive-sided flycatcher may utilize the site as a migratory stopover, particularly in the higher woodland zone.
<i>Black swift</i> (<i>Cypseloides niger</i>)	SSC (Nesting) Third Priority	Low (No nesting sites; potentially rare migrant). In Southern California this species breeds in a very few localities in the San Gabriel, San Bernardino and San Jacinto Mountains. Most breeding sites are associated with steep cliffs, or near and behind waterfalls. Suitable nesting habitat is not present, and the subject property is located outside of this species' known breeding range; therefore, this species does not nest on-site. Potentially occurs as a rare migrant.
<i>American peregrine falcon</i> (<i>Falco peregrinus anatum</i>)	FDL (Federally Delisted); SDL (State Delisted); SFP (Nesting)	Low (Low Migratory Occurrence Potential). This subspecies occurs along the coast year-round, breeding from Santa Barbara to Northern California. This subspecies also breeds in the Sierra Nevada and the Salton Sea. The wintering range for this subspecies extends into the Central Valley and more inland in Southern California. Most commonly occupied habitats contain cliffs for nesting, with open gulfs of air and generally open landscapes for foraging. In addition to natural habitats, many artificial habitats are now used by this subspecies (urban, human-built environments such as towers, buildings, etc.). Although some structurally suitable habitat is present, this subspecies has not been likely to nest on the subject property. This falcon may, however, utilize the site for foraging occasionally.
<i>Nuttall's woodpecker</i> (<i>Picoides nuttallii</i>)	SSA (Nesting)	Low. Nuttall's woodpecker is found uncommonly in dense oak and riparian woodlands. They forage for insects on and under the bark of trees, and nest in tree cavities that they excavate, which will provide nesting areas for many other secondary cavity nesting species. The oak habitats on-site may not be developed well enough to support this species and it was not detected on-site.

Section 4.4

Environmental Impacts – Biological Resources

Table 4.4-10 – Regulatory Status Animals

<i>Species</i>	<i>Regulatory Status</i>	<i>Species Status on the Project Site/ Life History/Habitat Description</i>
<i>Allen's hummingbird (Selasphorus sasin)</i>	<i>SSA (Nesting)</i>	<i>Low. Males and females of this species prefer different habitats during breeding season; males set up territories in sage scrub and riparian areas, females select nest sites in densely vegetated areas or forests. This species has a low probability of nesting on-site.</i>
<i>California horned lark (Eremophila alpestris actia)</i>	<i>SWL (State Watch List Bird Species)</i>	<i>Low. The California horned lark is fairly common throughout California; however, numbers have been recently declining near urbanized areas of Southern California. This subspecies generally occurs in grasslands and open habitats on the coastal side of the Transverse ranges. The subspecies on the Antelope Valley side of the ranges would be the widespread desert form E. a. ammodendri, and these were fairly commonly observed in the low grasslands on-site.</i>
<i>Osprey (Pandion haliaetus)</i>	<i>SWL (Nesting)</i>	<i>Low. This species is an uncommon winter visitor along the coast of Southern California. Breeding for this species is largely limited to Northern California. The osprey is associated strictly with large, fish-bearing waters. Suitable habitat is not present on the subject property. This species does not nest on-site. There is low potential for occurrence on-site during migratory movements.</i>
<i>Cooper's hawk (Accipiter cooperii)</i>	<i>SWL (Nesting)</i>	<i>Low (Nesting). The Cooper's hawk is a crow-sized raptor and typically breeds throughout the state. It is tolerant of human activity and population numbers appear to be on the rise. It nests in open forests, groves, or trees along rivers, or low scrub of treeless areas. The wooded area is often near the edge of a field or water opening. Only the higher elevation woodlands on the Project site or adjacent to the Project site and off-site trees in more urbanized portions of the City provide possible nesting habitat for this species.</i>
<i>Bell's sage sparrow (Amphispiza belli belli)</i>	<i>SWL (Nesting)</i>	<i>Low (Nesting). This subspecies of sage sparrow prefers coastal sage scrub and open chaparral habitats in Southern California; therefore, this subspecies is not likely to occur on-site. It nests on the ground beneath shrubs or in shrubs 6 to 18 inches above ground. If any sage sparrow occurs on site it is likely the interior Mojave Bell's sparrow (Amphispiza belli canescens). This species was not observed on the Project site during surveys.</i>
<i>Sharp-shinned hawk (Accipiter striatus)</i>	<i>SWL (Nesting)</i>	<i>Low (Not Nesting - Winter Resident). This species is a common winter visitor to Southern California. It prefers forested or woodland riparian habitats, but will also occur in urban areas. Garrett and Dunn cite nesting records in the San Gabriel Mountains, San Bernardino Mountains, San Diego County, and the San Jacinto Mountains. This species is probable as an uncommon winter resident on-site.</i>

Section 4.4

Environmental Impacts – Biological Resources

Table 4.4-10 – Regulatory Status Animals

<i>Species</i>	<i>Regulatory Status</i>	<i>Species Status on the Project Site/ Life History/Habitat Description</i>
<i>Norther harrier (Circus cyaneus)</i>	<i>SSC (Nesting) Third Priority</i>	<i>Not Present (nesting); Possibly Observed Foraging (Winter). The subject property is located outside of this species' current breeding range; however, the northern harrier has a worldwide distribution and a wide range during migration. This species prefers expansive open, treeless areas. A recent sighting has been reported for "Beehive Canyon Road," apparently on the southerly portion of the site (October 2019, eBird), but TeraCor did not attempt to confirm the sighting. This species could utilize the site during Winter and as a migratory stopover.</i>
<i>Swainson's hawk (Buteo swainsoni)</i>	<i>ST (State listed as Threatened) (Nesting)</i>	<i>Not Present (nesting); Low (occasional foraging). This raptor is a summer migrant to North America, and spends the winter in South America, making it the longest migrant of any North American raptor. Habitat preferences for this species include broken woodlands, savannah, higher deserts with scattered groves of trees, and ranch lands with scattered trees. Prey items for this species range from small mammals to insects with small birds and reptiles taken occasionally. The subject property is located south of this species' known, few Antelope Valley breeding sites. Swainson's hawk generally migrates in flocks along established flyways and, it could utilize the subject property as a migratory stopover and foraging site.</i>
<i>Ferruginous hawk (Buteo regalis)</i>	<i>SSC (State Species of Special Concern)</i>	<i>Not Present (nesting; Low (occasional foraging). The ferruginous hawk utilizes open grasslands, sagebrush flats, desert scrub and fringes of pinyon and juniper habitats. It is an uncommon but regular winter visitor to the Antelope Valley, north and east of the project site (eBird records). There are CNDDDB records for "on powerline tower near the northwest end of Anaverde Motorway, and about five miles west of the Palmdale PO." and another for "about 0.3 mile south of Elizabeth Lake Road at the northwest end of Anaverde Valley, about five miles west of the Palmdale PO". (both 2011). These sites are a few miles west of the project site. Not observed on site but may occur as a foraging winter visitor, or in migration.</i>
<i>Merlin (Falco columbarius)</i>	<i>SWL (Wintering)</i>	<i>Not Present (nesting); Low (Winter foraging). This species winters throughout California. It occurs mainly in the western half of the state below 1500 meters. It is seldom found in heavily wooded areas or open deserts. It occurs in coastlines, open grasslands, savannahs, woodlands, lakes, wetlands, and various ecotones (edge habitats). Although somewhat suitable wintering habitat is present, this species would be a winter-visitor on the subject property. This species was not detected on-site.</i>

Section 4.4

Environmental Impacts – Biological Resources

Table 4.4-10 – Regulatory Status Animals

<i>Species</i>	<i>Regulatory Status</i>	<i>Species Status on the Project Site/ Life History/Habitat Description</i>
<i>Rufous hummingbird (Selasphorus rufus)</i>	<i>SSA (Nesting)</i>	<i>Not Present (Low Migratory Occurrence Potential). This aggressive hummingbird is a migrant in southern California. They occur in coastal lowlands in a variety of habitats where melliferous flowers are common. They seek out blooming chaparral plants such as currant, manzanita, and gooseberry. The adult male of this species is very difficult to distinguish from the adult male of the Allen's Hummingbird in the field, and the females and juveniles are not generally possible to distinguish. Often, the distinguishing field characteristic for the males of these two species is the amount of red/rufous coloration on the back. Although foraging habitat is present, the subject property is located outside of this species' known breeding range; therefore, this species is not likely to nest on the site. This taxon has a low potential of utilizing the subject property but might be seen as a migratory stopover.</i>
<i>Western yellow-billed cuckoo (Coccyzus americanus occidentalis)</i>	<i>FE (Federally listed as Endangered); SE (Nesting)</i>	<i>Not Present. The western yellow-billed cuckoo prefers dense riverine woodlands. This subspecies is common in parts of its range, but has experienced serious declines due to habitat loss and fragmentation. It is rarely seen outside of known riparian nesting sites. Suitable habitat is not present, and this subspecies was not detected on-site.</i>
<i>Southwestern willow flycatcher (Empidonax traillii extimus)</i>	<i>FE; SE (Nesting)</i>	<i>Not Present. The subspecies southwestern willow flycatcher occupies the southernmost breeding range of the willow flycatcher. It was listed as federally endangered in 1993, and it is estimated that only 900 to 1000 breeding pairs remain. Habitat loss and parasitism from brown-headed cowbirds have reduced the populations to the threshold of extinction. Suitable nesting habitat is not present on-site but the species could occur in migration.</i>
<i>Willow flycatcher (Empidonax traillii all subspecies)</i>	<i>SE (Nesting) (All Subspecies)</i>	<i>Not Present. All subspecies of the willow flycatcher in California are restricted to thickets of willows in streams, seeps, and ponds for breeding. Willow flycatcher populations have been severely reduced by habitat loss and brown-headed cowbird (<i>Molothrus ater</i>) parasitism. Suitable nesting habitat is not present on-site but the species could occur in migration.</i>
<i>Bank swallow (Riparia riparia)</i>	<i>ST (State listed as Threatened) (Nesting)</i>	<i>Not Present. The bank swallow was historically a more common breeder in California. Currently, nesting colonies in California are largely limited to the Sacramento and Feather Rivers. This species migrates from Mexico and South America to Holarctic breeding grounds. Suitable riparian habitat is not present on the subject property. Bank swallows are annually recorded at a few sites to the north in the Antelope Valley. This species may occur occasionally over the site, as foraging near the aqueduct to the northeast.</i>

Section 4.4

Environmental Impacts – Biological Resources

Table 4.4-10 – Regulatory Status Animals

<i>Species</i>	<i>Regulatory Status</i>	<i>Species Status on the Project Site/ Life History/Habitat Description</i>
<i>Burrowing owl</i> (<i>Athene cunicularia</i>)	SSC (Burrow Sites and some Wintering Sites) Second Priority	Not Present. This species is found in appropriate habitats throughout California, excluding the humid northwest coastal forests and high mountains. It occurs as high as 1600 meters in Lassen County. It is found throughout the state during fall and spring migration. The habitat for this species consists of dry, open shortgrass, treeless plains, often associated with burrowing mammals. Burrowing owl may utilize a site for breeding, wintering, foraging, and/or migration stopovers. This species often exhibits high site fidelity, with family groups reusing burrows year after year. TeraCor conducted surveys in accordance with CDFW recommendation for the species in 2019. Burrowing owls were not detected on-site. (See Burrowing Owl Survey for the Quail Valley Project, dated 09 November 2019.).
<i>Least bittern</i> (<i>Ixobrychus exilis</i>)	SSC (Nesting) Second Priority	Not Present. This neotropical migrant prefers freshwater and brackish marshes for nesting. Suitable habitat is not present; therefore, this species would not occur on-site.
<i>Red-breasted sapsucker</i> (<i>Sphyrapicus ruber</i>) <i>Formerly known as the yellow-bellied sapsucker (Sphyrapicus varius)</i>	SSA (Nesting)	Not Present. This sap-dependent species occurs in mixed coniferous forests near the coast, and mixed deciduous woodlands in the interior mountains of California. They forage by drilling holes in trees, then later returning to drink sap and eat insects attracted to the sap. They commonly breed in Northern California and the Sierra-Nevada Mountains from sea level to about 2750 meters in elevation. In Southern California this species is limited to breeding in higher mountainous regions (i.e., San Gabriel Mountains, San Bernardino Mountains, and San Jacinto Mountains). Suitable nesting habitat is not present, and the subject property is located outside of this species' known breeding range; therefore, this species does not nest on the subject property. This species might occur as a migratory stopover.
MAMMALS		
<i>Spotted bat</i> (<i>Euderma maculatum</i>)	SSC Addition to List	High. The spotted bat has a wide, spotty distribution which ranges from British Columbia, Canada south to Durango, Mexico. This species is an aerial forager and is thought to specialize on large moths. It is thought that this species roosts in cracks and crevices of cliffs and canyon walls. Habitats on the subject property are suitable; therefore, this species has a high possibility of occurrence on-site.
<i>Western mastiff bat</i> (<i>Lasiurus blossevillii</i>)	SSC Second Priority	High. The western mastiff bat prefers rocky canyons. It requires adequate space beneath its roots in order to take flight because the western mastiff bat cannot achieve flight from flat surfaces. This subspecies roosts in rock crevices on cliff faces and occasionally buildings. Habitats on the subject property are suitable, therefore, it has a high possibility of occurrence on-site.
<i>Los Angeles pocket mouse</i> (<i>Perognathus longimembris brevinasus</i>)	SSC Highest Priority	Moderate. Pocket mice are the smallest members of the family Heteromyidae. Los Angeles pocket mouse is generally believed to occur in low elevation grasslands and sage scrub, of coastal basins in southern California. It is considered extirpated/possibly extirpated from Los Angeles County (Nature Serve Explorer online).

Section 4.4

Environmental Impacts – Biological Resources

Table 4.4-10 – Regulatory Status Animals

<i>Species</i>	<i>Regulatory Status</i>	<i>Species Status on the Project Site/ Life History/Habitat Description</i>
<i>Pallid bat</i> (<i>Antrozous pallidus</i>) <i>Formerly known as Antrozous pallidus pacificus</i>	SSC Addition to List	<i>Moderate. The pallid bat feeds on large insects and other invertebrates it captures on the ground or on vegetation. This species does not utilize echolocation to locate prey; rather, prey is located by sound. The pallid bat roosts by day in rock crevices, buildings, mines, and hollow trees. Habitats on the subject property are suitable; therefore, this species has a reasonable possibility of occurrence on-site.</i>
<i>Southern grasshopper mouse</i> (<i>Onychomys torridus ramona</i>)	SSC Addition to List	<i>Moderate. This carnivorous mouse preys primarily on arthropods, but will also take other small mammals. Habitat consists of grasslands and arid scrub. The subject property contains suitable habitat for this organism, however, this subspecies is uncommonly detected. It has a moderate potential of occurrence on-site.</i>
<i>California leaf-nosed bat</i> (<i>Macrotus californicus</i>)	SSC Second Priority	<i>Moderate. The California leaf-nosed bat locates its prey visually and gleans for moths, katydids, and butterflies off the ground and vegetation. This bat's preferred roosting habitats are caves, mines, and rock shelters, mostly in Sonoran desert scrub. Roost sites are usually located near foraging areas. This bat may potentially occur on-site.</i>
<i>Big free-tailed bat</i> (<i>Nyctinomops macrotis</i>)	SSC Second Priority	<i>Moderate. This species has long, narrow, tapering wings which give it speed and allow it to travel long distances. This bat prefers rugged habitats, and often roosts in crevices in cliff faces, buildings, and occasionally hollow trees. The habitat on the subject property is suitable; sustained presence is uncertain.</i>
<i>American badger</i> (<i>Taxidea taxus</i>)	SSC Third Priority	<i>Moderate. This species' range in California extends throughout the length of the state, and only excludes the northwestern coast. The American badger occurs in plains, prairies, deserts, open valleys, woodland edges, and alpine meadows, and uncommonly in open grassland and disturbed habitats, but has become extremely rare in areas of human activity. Suitable habitat is present and the site is in range for the species suggesting a moderate probability of occurrence. No badger burrows were found on-site.</i>
<i>Western small-footed myotis</i> (<i>Myotis ciliolabrum</i>)	SSA	<i>Moderate. The western small-footed myotis roosts singly or in small communal groups in rock crevices, mines, caves, under exfoliating bark, or in buildings. This species consumes a wide variety of flying insects including moths and beetles. Suitable roost sites, such as rock crevices and exfoliating bark material on some of the oak trees, are present on the subject property. Habitats on the subject property are favorable; therefore, this species has a reasonable possibility of occurrence on-site.</i>
<i>Fringed myotis</i> (<i>Myotis thysanodes</i>)	SSA	<i>Moderate. The fringed myotis occurs primarily in forested areas, but also occurs in desert scrub. This species captures prey in flight; however, it may also glean moths and beetles from vegetation. The fringed myotis roosts in a variety of areas. Site conditions are such that sustained presence may be possible for this species on-site.</i>

Section 4.4

Environmental Impacts – Biological Resources

Table 4.4-10 – Regulatory Status Animals

<i>Species</i>	<i>Regulatory Status</i>	<i>Species Status on the Project Site/ Life History/Habitat Description</i>
<i>San Diego desert woodrat (Neotoma lepida intermedia)</i>	SSC Addition to List	<i>Presumed Present. This subspecies is rather widely distributed throughout Southern California in sage scrub, chaparral and desert regions. It prefers rocky areas, nesting in cracks and crevices, sometimes in cactus, while the sympatric dusky-footed woodrat (Neotoma fuscipes) nests in shrubs and occasionally trees. TeraCor detected stick nests under a Juniper tree in rocky outcrops in one area of the site, presumed to be this species.</i>
<i>Townsend's big-eared bat (Corynorhinus townsendii)</i> <i>Formerly known as pale big-eared bat (Plecotus townsendii pallescens)</i>	SCT (State Candidate for Threatened); SSC Second Priority	<i>Low. This species has an interesting and wide distribution across Mexico, the western states and central plains states eastward to Ohio and West Virginia. The subspecies in the American southwest is Corynorhinus townsendii pallescens. This species is a versatile flier and forages for flying insects at both low and high altitudes. This species primarily roosts in caves and mines, but can be found in buildings. The habitat on the subject property is marginally suitable.</i>
<i>Western yellow bat (Lasiurus xanthinus)</i>	SSC	<i>Low. The western yellow bat is found in extreme southwestern deserts of California north to Los Angeles and Riverside Counties and east to Arizona. Habitat on the subject property is marginal (i.e., canyons) for this species. Site conditions are such that sustained presence is unlikely for this species on-site.</i>
<i>Mexican long-tongued bat (Choeronycteris mexicana)</i>	SSC Second Priority	<i>Low. The Mexican long-tongued bat is generally considered to be rare in Southern California. This species of bat feeds primarily on nectar, pollen, and fruit. It occurs in canyons, pine-oak forest, and desert scrub associations. This species prefers to roost in caves, mines, and buildings. The habitat on the subject property is marginal. Site conditions are such that sustained presence is unlikely for this species on-site.</i>
<i>Western red bat (Lasiurus blossevillii)</i>	SSC Second Priority	<i>Low. Lasurine bats are generally solitary. This species prefers riparian areas, and often roosts in cottonwood (Populus spp.) and willow trees. Moths are the preferred food item, however, other species of flying insects will be consumed. The lack of tall riparian trees on-site suggests this species has a low potential of occurring and potentially roosting on the subject property.</i>
<i>Pocketed free-tailed bat (Nyctinomops femorosaccus)</i>	SSC Second Priority	<i>Low. Pocketed free-tailed bats are swift fliers, and often pursue small flying insects, such as small moths, on the wing. The species occurs in California primarily in the southern deserts of Riverside, San Diego, Imperial and San Bernardino Counties. This species prefers habitats close to riparian areas, and often roosts in caves, rock crevices, and buildings. The range of this species suggests it is unlikely to occur on-site.</i>
<i>Hoary bat (Lasiurus cinereus)</i>	SSA	<i>Low. This species prefers deciduous and coniferous forests, and often roosts in those types of trees. Moths are the preferred food item; however, other species of flying insects and occasionally small bat species will be consumed. This species has a low potential of occurring and potentially roosting on the subject property. Marginally suitable habitat for this species is present on-site.</i>

Section 4.4

Environmental Impacts – Biological Resources

Table 4.4-10 – Regulatory Status Animals

<i>Species</i>	<i>Regulatory Status</i>	<i>Species Status on the Project Site/ Life History/Habitat Description</i>
<i>Long-eared myotis (Myotis evotis)</i>	SSA	<i>Low. The long-eared myotis occurs primarily in forested areas up to 3000 meters. This species gleans moths and beetles from vegetation. Researchers believe that this species may rely more upon hearing to locate prey, rather than echolocation. The long-eared myotis roosts in a variety of areas. The habitat on the subject property is marginal for roosting but may be suitable foraging habitat. Site conditions are such that sustained presence is unlikely for this species on the subject property.</i>
<i>Yuma myotis (Myotis yumanensis)</i>	SSA	<i>Low. The Yuma myotis roosts in large groups in vertical cracks in cliff faces, buildings, and under bridges. This species' distribution is often closely tied to bodies of water and riparian areas; it has a low potential of occurring on the subject property. Habitats on the property lack open water and well-developed riparian zones, suggesting the species is not likely to forage over the property or roost on-site.</i>
<i>San Diego black-tailed jackrabbit (Lepus californicus bennettii)</i>	SSC Addition to List	<i>Not Present (bennettii subspecies). San Diego black-tailed jackrabbit occurs in a wide array of habitats in Southern California. The black-tailed jackrabbit is common throughout the state; however, habitat loss and fragmentation in Southern California has caused declines. The subspecies on the desert side of the Transverse ranges is L.C. deserticola, not the listed bennettii. All subspecies in California are legally hunted and seasons are open year-round with no limit of take. Jackrabbits (L.C. deserticola) are common on the site.</i>

Source: General Biological Assessment for the 878.1-Acre Quail Valley Planned Development Project prepared by TeraCor Resource Management dated February 12, 2020.

4.4.7 ***THRESHOLD FOR DETERMINING SIGNIFICANCE***

According to Appendix G of the CEQA 2022 Guidelines, a project will normally have a significant adverse environmental impact on biological resources if it would:

- Threshold BIO-1** 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 Wildlife or United States Fish and Wildlife Service.
- Threshold BIO-2** 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 Wildlife or United States Fish and Wildlife Service.
- Threshold BIO-3** Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means.
- Threshold BIO-4** 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.
- Threshold BIO-5** Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinances.
- Threshold BIO-6** Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or State habitat conservation plan.

4.4.8 ***ENVIRONMENTAL IMPACT***

Impact Analysis

- Threshold BIO-1** Would the Project 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 Wildlife or United States Fish and Wildlife Service?

Potentially Significant Impact.

- Threshold BIO-2** Would the Project 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 Wildlife or United States Fish and Wildlife Service?

Section 4.4

Potentially Significant Impact.

Threshold BIO-5 Would the Project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinances?

Less Than Significant Impact.

Habitat Impacts

The potential impacts of the proposed Project on habitats have been analyzed. In order to more precisely describe modification of habitats (such as clearing, grading establishment of fuel modification areas, and perimeter trail construction), a GIS-based cartographic analysis was completed and demonstrated that approximately 53 percent of the Project area would be removed, or modified, for establishment of fuel modification areas or perimeter trail placement, and approximately 47 percent of the total acreage would be permanently avoided and not directly affected by Project implementation.

Approximately 465 acres of habitat in the approximately 878.1-acre Project site would be removed or modified as part of the proposed Project. Approximately 413 acres would be permanently avoided and not directly affected by Project implementation. Slight variations in acreage are a result of different sources, measurement methodologies and rounding.

Qualitative analyses describe types and range of impacts that could be realized from implementation of the proposed Project. For purposes of assessing loss of habitats for each regulatory status species (as well as common animals in respective genera), vegetative structure rather than plant dominance was relied upon as a mechanism to predict habitat occupation and loss impacts on individual species. The impact to each animal species, therefore, is correlated with impact to vegetative structures. All vegetative alliances (communities) were classified as belonging to one of four habitat structures: Woodland/Chaparral; Scrub; Riparian Scrub; and, Grassland. These vegetative structures correlate with plant communities along with the impacts to each as shown in **Table 4.4-11 (Vegetation Community Impacts)**, below, and also is depicted visually on **Exhibit 4.4-7 (Vegetation Impacts)**.

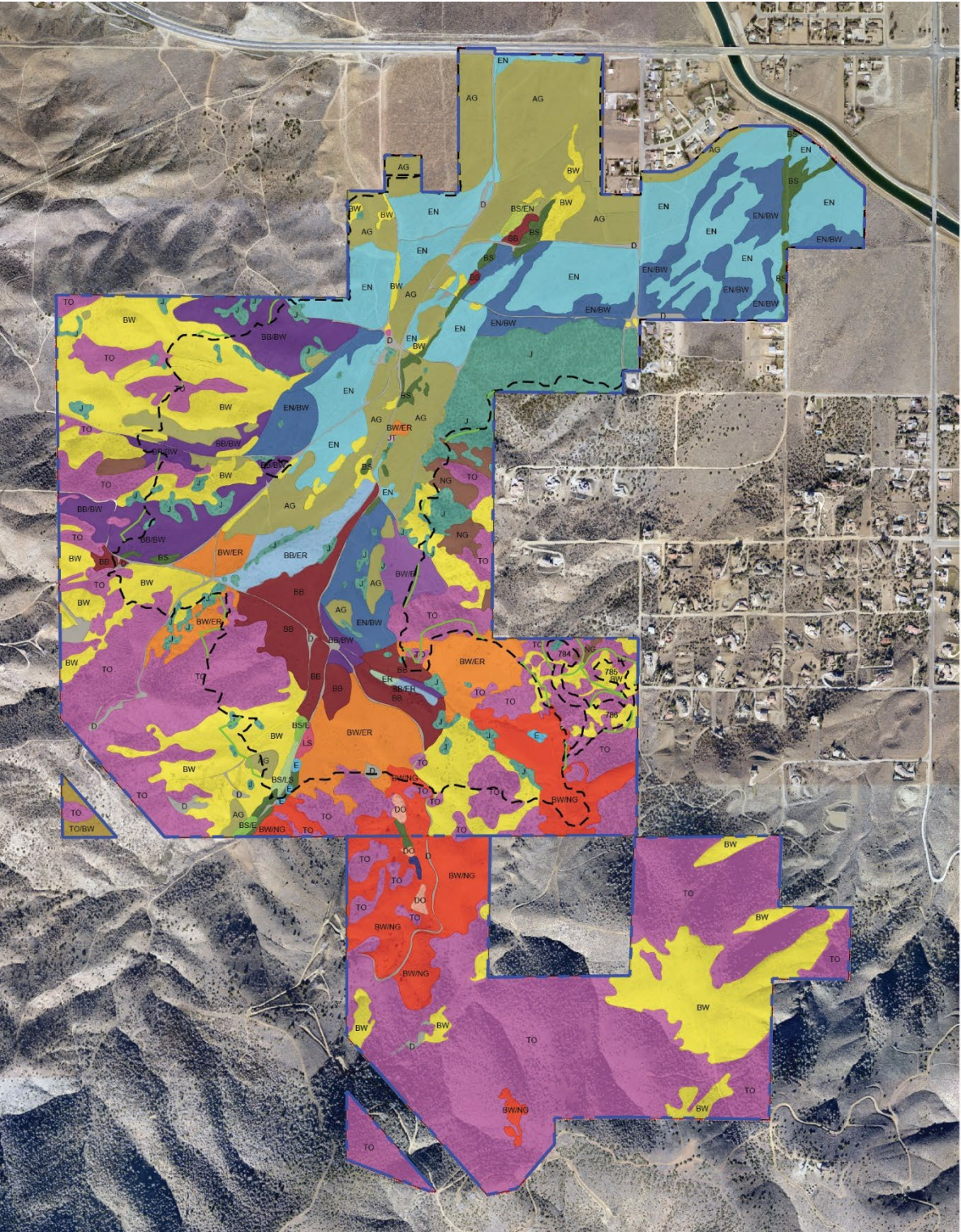
Section 4.4

Environmental Impacts – Biological Resources

Table 4.4-11 – Vegetation Community Impacts				
Vegetation Community	Vegetative Structure	Acreage Currently Present	Impacted Acreage	Avoided Acreage
Tucker Oak Chaparral	Chaparral/Woodland	262.93	29.28	233.65
Juniper Woodland	Chaparral/Woodland	43.94	32.84	11.1
Joshua Tree Woodland	Chaparral/Woodland	0.07	0.07	0
California Buckwheat Scrub	Scrub	144.64	52.5	92.14
Brittlebush Scrub	Scrub	25.32	24.65	0.67
Rubber Rabbitbrush	Scrub	91.16	90.02	1.14
Narrowleaf Goldenbush Scrub	Scrub	0.04	0.04	0
Ericameria Blended Series	Scrub	0.35	0.35	0
Big Sagebrush Scrub	Scrub	8.61	7.57	1.04
Scalebroom Scrub	Scrub	0.58	0.58	0
Elderberry Scrub	Scrub	0.63	0.53	0.1
Desert Olive Patch	Riparian Scrub	1.22	0	1.22
Annual Grassland	Grassland	91.33	87.74	3.59
Native Grassland	Grassland	7.13	0.51	6.62
Disturbed-Non-Vegetated	Grassland	19.47	14.990	4.48
California Buckwheat Scrub/Native Grassland	Scrub	50.11	11.85	38.26
Brittlebush Scrub/California Buckwheat Scrub	Scrub	32.48	23.6	8.88
Brittlebush Scrub/Ericameria Scrub	Scrub	8.69	8.69	0
Big Sagebrush Scrub/Elderberry Scrub	Scrub	0.88	0.01	0.87
Big Sagebrush Scrub/Rubber Rabbitbrush	Scrub	0.83	0.83	0
Big Sagebrush Scrub/Scalebroom Scrub	Scrub	0.80	0.79	0.01
California Buckwheat Scrub/Narrowleaf Goldenbush Scrub	Scrub	5.60	3.68	1.92
California Buckwheat Scrub/Ericameria Scrub	Scrub	34.92	28.19	6.73
California Buckwheat Scrub/Rubber Rabbitbrush	Scrub	43.91	43.91	0
Joshua Tree Woodland/Elderberry Scrub	Chaparral/Woodland	0.245	0	0.24
Tucker Oak Chaparral/California Buckwheat Scrub	Chaparral/Woodland	2.21	0	2.21
	Total	878.1	463.22	414.87

Source: General Biological Assessment for the 878.1-Acre Quail Valley Planned Development Project prepared by TeraCor Resource Management, dated February 12, 2020

EXHIBIT 4.4-7 – VEGETATION IMPACTS



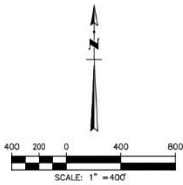
LEGEND

- PROJECT BOUNDARY LINE
- DAYLIGHT GRADING LINE
- FUEL MODIFICATION LINE

DATA TABLE

COLOR	VEGETATION TYPE	TOTAL HABITAT	DEVELOPED	FUEL MOD (NOT DEVELOPED)
	TUCKER OAK CHAPARRAL [TO]	262.93 AC	25.00 AC	4.28 AC
	JUNIPER WOODLAND [J]	43.94 AC	32.39 AC	0.45 AC
	JOSHUA TREE WOODLAND [JT]	0.07 AC	0.07 AC	0.00 AC
	CALIFORNIA BUCKWHEAT SCRUB [BW]	144.64 AC	49.21 AC	3.29 AC
	BRITTLEBUSH SCRUB [BB]	25.32 AC	24.30 AC	0.35 AC
	RUBBER RABBITBRUSH [EN]	91.16 AC	90.00 AC	0.02 AC
	NARROWLEAF GOLDENBUSH SCRUB [EL]	0.04 AC	0.04 AC	0.00 AC
	ERICAMERIA BLENDED SERIES [ER]	0.35 AC	0.35 AC	0.00 AC
	BIG SAGEBRUSH SCRUB [BS]	8.61 AC	7.57 AC	0.00 AC
	SCALEBROOM SCRUB [LS]	0.58 AC	0.58 AC	0.00 AC
	ELDERBERRY SCRUB [E]	0.63 AC	0.53 AC	0.00 AC
	DESERT OLIVE PATCH [DO]	1.22 AC	0.00 AC	0.00 AC
	ANNUAL GRASSLAND [AG]	91.33 AC	87.37 AC	0.37 AC
	NATIVE GRASSLAND [NG]	7.13 AC	0.45 AC	0.06 AC
	DISTURBED–NON–VEGETATED [D]	19.47 AC	14.98 AC	0.01 AC
	CALIFORNIA BUCKWHEAT SCRUB/NATIVE GRASSLAND [BW/NG]	50.11 AC	11.83 AC	0.02 AC
	BRITTLEBUSH SCRUB/CALIFORNIA BUCKWHEAT SCRUB [BB/BW]	32.48 AC	22.46 AC	1.14 AC
	BRITTLEBUSH SCRUB/ERICAMERIA SCRUB [BB/ER]	8.69 AC	8.69 AC	0.00 AC
	BIG SAGEBRUSH SCRUB/ELDERBERRY SCRUB [BS/E]	0.88 AC	0.01 AC	0.00 AC
	BIG SAGEBRUSH SCRUB/RUBBER RABBITBRUSH [BS/EN]	0.83 AC	0.83 AC	0.00 AC
	BIG SAGEBRUSH SCRUB/SCALEBROOM SCRUB [BS/LS]	0.80 AC	0.79 AC	0.00 AC
	CALIFORNIA BUCKWHEAT SCRUB/NARROWLEAF GOLDENBUSH SCRUB [BW/EL]	5.60 AC	3.68 AC	0.00 AC
	CALIFORNIA BUCKWHEAT SCRUB/ERICAMERIA SCRUB [BW/ER]	34.92 AC	27.54 AC	0.65 AC
	CALIFORNIA BUCKWHEAT SCRUB/RUBBER RABBITBRUSH [BW/EN]	43.91 AC	43.91 AC	0.00 AC
	JOSHUA TREE WOODLAND/ELDERBERRY SCRUB [JT/E]	0.24 AC	0.00 AC	0.00 AC
	TUCKER OAK CHAPARRAL/CALIFORNIA BUCKWHEAT SCRUB [TO/BW]	2.21 AC	0.00 AC	0.00 AC
TOTALS:		878.07 AC	452.58 AC	10.64 AC

*NOTE: GRADED AND FUEL MODIFICATION IMPACTS INCLUDE THOSE FROM LOTS 784–786, WHICH ARE CONCEPTUALLY DESIGNED ONLY. SEE SUBSET BELOW FOR IMPACTS FROM THESE LOTS ONLY.



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Removal of vegetative habitat would have a direct negative effect on both common and regulatory status animals. The following **Table 4.4-12 (Regulatory Status Animal Species Impacts)** indicates that approximately 463 acres of the approximately 878.1 acres of natural habitat for animals on the subject property would be removed with implementation of the proposed Project. The alignment of the perimeter trail which comprises 1.46 acres has not been precisely determined and therefore is not shown in these **Tables**, but it has been included in the generalized impact calculations. Total habitat impacts including the trail total approximately 465 acres.

Those animal species determined to have at least a moderate potential of occurrence may be present in these habitats, as specifically analyzed in **Table 4.4-12** on a species-by-species basis.

Those regulatory status animal species that have low probability of occurrence on-site are assumed “not present” and have not been included as being discernably impacted.

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Table 4.4-12 – Regulatory Status Animal Species Impacts				
<i>Vegetative Structure</i>	<i>Acreage Currently Present</i>	Approximate Area within Proposed Development (Approx. Acres)	Approximate Area Outside of Proposed Development (Approx. Acres)	<i>Animals Expected to Utilize Habitat Type</i>
<i>Scrub</i>	450	298	152	<p>SSC: Silvery legless lizard, coast horned lizard, coast patch-nosed snake, grasshopper sparrow, pallid bat, spotted bat, western mastiff bat, California leaf-nosed bat, San Diego desert woodrat, big free-tailed bat, Los Angeles pocket mouse, American badger, loggerhead shrike, southern grasshopper mouse</p> <p>SSA: Rosy boa, San Bernardino ringneck snake, lark sparrow, Costa's hummingbird, Lawrence's goldfinch, chipping sparrow, western small-footed myotis, Fringed myotis.</p> <p>SWL: Southern California rufous-crowned sparrow, Prairie falcon</p>
<i>Grassland/ Open Disturbed</i>	118	103	15	<p>SSC: Los Angeles pocket mouse, American badger, grasshopper sparrow, loggerhead shrike, coast horned lizard, pallid bat, southern grasshopper mouse</p> <p>SSA: Lark sparrow, Lawrence's goldfinch, chipping sparrow</p> <p>SWL: Prairie falcon</p>
<i>Chaparral/ Woodland</i>	309	62	247	<p>SSC: Silvery legless lizard, coast patch-nosed snake, pallid bat, spotted bat, western mastiff bat, California leaf-nosed bat, big free-tailed bat, American badger, California mountain kingsnake, coast horned lizard, long-eared owl, loggerhead shrike, San Diego desert woodrat</p> <p>SSA: Rosy boa, San Bernardino ringneck snake, fringed myotis, oak titmouse, Costa's hummingbird, Lawrence's goldfinch, chipping sparrow, western small-footed myotis</p> <p>SWL: Cooper's hawk, southern California rufous-crowned sparrow</p>
<i>Riparian Scrub</i>	1	0	1	<p>SSC: Yellow-breasted chat</p> <p>SWL: Cooper's hawk</p>
Total	878	463	554	

Source: General Biological Assessment for the 878.1-Acre Quail Valley Planned Development Project prepared by TeraCor Resource Management dated February 12, 2020

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Riparian Habitat

Approximately 2 acres of CDFW jurisdiction is associated with the Project site; approximately 1 acre of which consist of riparian vegetation. The proposed project would result in the loss of 9,002 linear feet of “streambed” which in total comprises approximately 0.5 acres of jurisdiction. Impacts to CDFW jurisdiction will require a California Fish and Game (Wildlife) Code Section 1602 Streambed Alteration Agreement. GLA determined no riparian vegetation would be affected with project implementation.

Short-Joint Beavertail Cactus

Forty-two individual short-joint beavertail cactus were present on-site and 24 cacti would be affected by project development, as shown on the previous **Exhibit 4.4-3 (Vegetation Communities)**. The CNPS lists the species as Rare Plant Rank 1B.2, meaning that the group considers it rare, threatened or endangered in California and elsewhere, and the degree of threat to it is believed to be moderately threatened in California (20 to 80 percent of occurrences threatened/moderate degree and immediacy of threat). The state of California has not, itself, listed the species as Endangered, threatened, rare or a candidate for those classifications.

Peirson’s Morning-Glory

Peirson’s morning-glory is ranked by the CNPS as a Rare Plant Rank 4.2 species, meaning the group considers it a plant of limited distribution (a watch list) and moderately threatened in California (20 to 80% of occurrences threatened/moderate degree and immediacy of threat). The state of California has not, itself, listed the species as rare or a candidate for any protected classification. GLA mapped Peirson’s morning-glory and found a total of approximately 38 occupied acres. TeraCor mapped this plant again in 2019 because of possible annual fluctuations in its distribution and found approximately 17 acres to be occupied by Peirson’s morning-glory. The Project would affect 14.97 of these acres. The impacted areas are visually shown on **Exhibit 4.4-6 (Impacts to Special Status Plants)**.

Joshua Trees and California Junipers

The California Department of Fish and Game Commission on September 22, 2020, determined that listing the western Joshua tree as Endangered/Threatened may be warranted and indicated Joshua tree will be treated as Endangered/Threatened for at least one year.

Chapter 14.04 Native Desert Vegetation Preservation Ordinance

The City of Palmdale Joshua Tree and Native Desert Vegetation Preservation Ordinance is codified in the City Municipal Code Chapter 14.04. The Ordinance has as its intent “...to protect and preserve desert vegetation. . . so as to retain the unique natural desert aesthetics in some areas of ...[Palmdale], and to promote the general welfare of the community.” The Ordinance also states that “although it may not be feasible, practicable, or in the public interest to preserve all healthy desert vegetation regulated under this chapter due to reasonable planning, developmental or property rights considerations, the design of development projects should strive to protect and maintain the most desirable and significant of the healthy desert vegetation in a manner consistent with the City general plan and the California Environmental Quality Act.” The Ordinance provides that desert vegetation shall not be removed from any parcel of land, except as provided for in Section 14.04.090 (Exceptions to Provisions). Any removal requires a Native Desert Vegetation Removal Permit issued by the City Landscape Architect or by the Director of Public Works’ designee. However, the Ordinance also includes detailed Desert Vegetation Preservation Plan

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Requirements, Desert Vegetation Preservation Criteria, and Maintenance Requirements.

GLA prepared a report entitled *Results of Joshua Tree and California Juniper Survey for the 725-acre Quail Valley Project, Located in the City of Palmdale, Los Angeles County, California* dated July 5, 2005. (revised August 22, 2006.) This report identified and mapped 239 Joshua trees and 6,531 junipers (junipers were counted not mapped) across the approximately 725-acre survey area prior to a wildfire that burned many of the surveyed specimens. These approximately 725 acres are contained within the approximately 878.1-acre Project site and includes the entire approximately 483-acre subdivided Project envelope. In 2005, GLA concluded that 182 out of the 239 Joshua trees would be affected by the Project. Similarly, there were 6,531 junipers on the property and 3,979 were expected to be affected by Project development (61 percent removal anticipated). In a follow-up survey and report dated August 22, 2006, performed by GLA after the July 5, 2006 wildfire on the property, GLA found that of the 239 Joshua trees originally mapped, only 38 Joshua trees had survived and of those 38, 27 would be affected by Project development. In 2006, it was not possible to determine which of the junipers would survive the fire. TeraCor noted a high number of dead junipers on the property during the 2019 on-site surveys. The general distribution of junipers has remained relatively constant, however, so it would be prudent to assume roughly 60 percent of junipers that were still present on-site in 2019 can be expected to be removed with Project implementation.

With development of the project, the 27 Joshua trees that would be impacted would be relocated or transplanted to areas of the project site to be preserved as undeveloped. “Take” authorization for removing or affecting Joshua tree will be required under the California Endangered Species Act because of the California Fish and Game Commission determination that listing Joshua tree as Endangered/Threatened may be warranted, as discussed on the previous page. In addition, approximately 2,600 California junipers will be preserved within the project site, and approximately 395 acres will remain undeveloped as part of the Project. The City’s “Joshua Tree and Native Desert Vegetation Preservation” (Chapter 14.04 of the Municipal Code) provides requirements for protecting and preserving desert vegetation, including California Juniper trees.

GLA also noted the following in its August 22, 2006 follow up report:

“Pursuant to the requirements set forth in the City of Palmdale’s Native Desert Vegetation Preservation Plan, a minimum of 2 trees per gross acre shall be protected and preserved in a natural condition. Prior to the July 5, 2005 wildfire, 0.08 Joshua trees per gross acre and 3.52 California junipers per gross acre were proposed for preservation, totaling 3.60 Joshua tree/California junipers per gross acre, exceeding the minimum requirements of the City’s Preservation Plan. Although most of the junipers were burned, it appears that they will recover from the fire; therefore, the 2.00 Joshua tree/California junipers per gross acre requirement will be achieved.”

In addition, the “Joshua Tree and Native Desert Vegetation Preservation” Ordinance (Chapter 14.04.050) requires all development proposal applications for sites containing native desert vegetation include a “desert vegetation preservation plan” submitted with the development application. The preservation plan must contain the following:

- A written report prepared by a desert native plant specialist and a site plan that depicts the location of each Joshua tree and California Juniper, discusses their age and health, identifies, and locates all trees and shrubs that can be saved in place or relocated;
- A site landscaping plan depicting the proposed location of those Joshua trees or California Junipers, and any other native desert vegetation that will remain on site;
- A long-term maintenance program for any desert vegetation preserved on the site. The minimum

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term of any maintenance program shall be two growing seasons unless a shorter length of time is determined by the City Landscape Architect, or in-lieu thereof, the Director of Public Works' designee in cases where the trees retained on the site are of such health and vigor after one growing season that their survival is assured;

- Other and further information the Director of Planning may deem necessary to fulfill the purposes and intent of this Municipal Code Chapter

The Chapter also stipulates the number of Joshua trees or California Junipers that shall be preserved by a combination of various identified means.

Regulatory Status Animal Impacts

Regulatory status animals that have been detected on the Project site and determined to have a moderate to high potential to be present in the impacted habitats have been analyzed and subsequently presented in **Table 4.4-12 (Regulatory Status Animal Species Impacts)**. Each regulatory status animal has been categorized into the vegetative structure where they could reasonably be expected to occur. This impact analysis, therefore, quantitatively provides the acreage that will be permanently removed for each of the species that can reasonably be expected to utilize that acreage. The loss of habitats previously described has been used to predict the extent of direct, permanent impacts to regulatory status organisms with project implementation. The following impacts to faunal resources have been identified based on the physical limits of the proposed project, the confirmed presence of animals, and the presumed presence of animals not detected but determined to have a moderate or high probability of occurring on-site.

Regulatory Status Reptile Species

Up to seven species: silvery legless lizard, coast horned lizard, California mountain kingsnake, rosy boa, San Bernardino ring-neck snake, loggerhead shrike and coast patch-nosed snake have a moderate or high potential to occur on the subject property.

Regulatory Status Bird Species

Up to 12 species: Cooper's hawk, grasshopper sparrow, prairie falcon, loggerhead shrike, lark sparrow, long-eared owl, Costa's hummingbird, Lawrence's goldfinch, chipping sparrow, oak titmouse, yellow-breasted chat and southern California rufous-crowned sparrow have a moderate or higher potential for nesting or foraging on the subject property.

*Burrowing Owl (*Athene cunicularia*)*

The burrowing owl is a CDFW "Species of Special Concern-Second Priority." Although no burrowing owls were observed on the Project site during any of the surveys, the Project site has the potential to support burrowing owls. Therefore, pre-disturbance surveys should be conducted for burrowing owls prior to initiation of Project development. If burrowing owls were to be detected on the Project site during pre-construction surveys, any owls should be passively excluded from the development area (outside of the breeding season) following accepted protocols. Exclusion of owls will require approval of the CDFW.

Regulatory Status Mammal Species

Up to 11 species: San Diego desert woodrat, American badger, Los Angeles pocket mouse, southern grasshopper mouse, pallid bat, spotted bat, western mastiff bat, California leaf-nosed bat, big free tailed bat, western small footed myotis, and fringed myotis are presumed present on the subject property.

Common Wildlife Impacts

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There will be a direct effect across approximately 463 acres in mortality of low awareness, low mobility, or subsurface-dwelling organisms which inhabit the Project site. The most vulnerable species include invertebrates, kangaroo rats, several species of white-footed mice, reptiles, and amphibians. There is no feasible way to avoid loss of these animals, although it can be lessened. Phased grading and development can allow time for higher mobility animals to gradually leave the development footprint. Adherence to “strip” grading techniques within each phase can reduce direct mortality to wildlife substantially by directing scrapers to proceed in a gradual and organized fashion to allow mobile wildlife an opportunity to move away from the worksite. The Migratory Bird Treaty Act requires that clearing of vegetation can only occur when bird nesting is not underway to avoid disturbance to any active nests. Because mature birds are highly mobile, there is usually no direct mortality of any bird species during grading activities, rather, there is a reduction in the habitats in which they forage and/or nest.

Many of the organisms potentially impacted by project development are considered relatively common on a statewide basis, or are locally common, and are not considered rare or sensitive enough to warrant designation as a regulatory status animal by the state or federal governments. Nonetheless, common, low-mobility animals that would experience direct mortality and habitat loss include: California ground squirrel (*Otospermophilus beecheyi*), western harvest mouse (*Reithrodontomys megalotis*), dusky-footed woodrat, (*Neotoma fuscipes*), California kingsnake (*Lampropeltis getula californiae*), Pacific treefrog (*Hyla* or *Pseudacris regilla*), and western toad (*Bufo boreas*), among others. The proposed project would result in the loss of common organisms, but such losses are not considered significant under the CEQA Guidelines Thresholds of Analysis utilized by the City of Palmdale. Therefore, no significant impacts to common animals are expected as a result of the project.

Temporary (Construction-Related) Impacts to Nearby Habitats

Noise and Vibration

Intense vibration and noise associated with Project grading (e.g., unanticipated limited blasting of rock substrates) and construction can have immediate effects on wildlife. Intense, short-duration noise or vibration can scare animals and cause them to flee. Lower intensity noise and vibration can affect daily activities for some animals in nearby habitats, but such effects would be assessed on the life history parameters of each organism. Shy or secretive animals (like badgers, bobcats, or mountain lion) would generally move away from noise and vibration sources and not return until the disturbance has ceased. Nocturnal foraging animals (like kangaroo rats, bats, and ringtails) would not be expected to be substantially affected by virtue of grading and construction occurring usually in daylight hours. Habitat generalists (like coyote, mule deer, or racoon) often habituate to human presence and disturbance and will investigate areas undergoing grading while foraging. Raptors (especially red-tailed hawks, white tailed kites, and golden eagles) can recognize the heightened availability of prey fleeing from a grading project area and can hunt opportunistically and successfully around and within a grading operation respective of grading activities. This effect is of short duration due to the limited days and times of Project grading.

Given the general adaptability of wildlife to urban noise and vibrations, it is not expected that significant temporary grading and construction effects would occur. Sound from grading and construction would be expected to generate noise on-site on an intermittent basis for up to several years during Project implementation. Grading is generally phased and will reduce effects to wildlife geographically if phasing is implemented. Measures to control grading times and spatial limits are proposed as part of the Project Mitigation Measures. Noise or vibration impacts therefore will not cause significant impacts to habitats or

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Environmental Impacts – Biological Resources

species relative to the CEQA Guidelines Thresholds of Analysis.

Dust Generation

Generation of dust is a potential impact to habitat areas and the animals within them, but dust generation usually is carefully managed to comply with air quality regulations. Standard conditions applied to all discretionary approvals require adherence to effective dust suppression and management activities. These measures include extensive use of watering trucks in open graded areas, cessation of ground-disturbing activities during periods of high wind, covering or stabilization of stockpiled earth, and other practices. Therefore, no significant impacts to habitats or wildlife associated with generation of dust are expected to occur.

Trails: An existing network of unimproved dirt roads, trails and paths are present on the Project site. Within the proposed Project development area, these unimproved trails will be absorbed into the street and pedestrian trail system. Several entities, including utility companies and property owners of parcels beyond the Project property boundaries, depend on the dirt roads for access to infrastructure and property holdings on or near the Project site. These entities will require access to their holdings, and will continue to use and maintain dirt roads that are outside of the development footprint. Disturbed/Non-vegetated areas are primarily comprised of dirt roads, and these areas currently total approximately 20 acres across the approximately 878.1-acre Project site. The Project Applicant proposes not to close or otherwise change the roadway network beyond the development footprint with the exception of adding approximately 1.5 acres of pedestrian/equestrian trails to the periphery of the development footprint inside the approximately 878.1-acre Project site (five-foot wide and 12,701 feet long; See **Exhibit 3-12 Conceptual Trail Plan** of the Planned Development Plan). The approximate location of the additional trail area may be adjusted to accommodate site specific constraints, such as slope, sensitive plant or plant community occurrences, archaeological resources, and similar constraining factors. Additionally, a portion of the Antelope Valley Backbone Trail traverses a portion of the open space area at the immediate boundary of the southern edge of the development envelope. A Mitigation Measure has been recommended to require careful alignment and implementation of the additional trails outside of the development footprint, and to better control unauthorized off-road vehicle use of avoided lands on the Project site property.

Summation

The candidate, sensitive and special status species which have been found to or believed to inhabit the Project site would be affected in varying degrees. Highly and moderately mobile organisms would likely move from the Project site into adjoining and nearby habitats once disturbance activities are initiated. Lesser-mobile organisms could be lost during clearing and grading activities. The net loss of supporting habitat is offset to some extent via the permanent avoidance of approximately 415 acres of the property, which also tends to qualify as higher value and less-disturbed habitat. Additionally, adequate habitats remain along the north flank of the San Gabriel Mountains generally (and the Sierra Pelona Range locally) to an extent that substantial effects leading to extirpation or elimination of species seems highly unlikely. It does not, therefore, appear that the Project would substantially affect candidate, sensitive, or special status species that occur in the area of the Project.

Threshold BIO-3 Would the Project have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?

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Less Than Significant Impact.

United States Army Corps of Engineers (Corps)

There are no “waters” of the U.S. on-site due to the isolation of the Mojave River. The Corps confirmed this determination in correspondence dated September 29, 2005. The RWQCB, however, asserts jurisdiction over the State’s streams, lakes and rivers despite the lack of a federal jurisdiction and oversight responsibility. RWQCB jurisdiction nonetheless “mirrors” what would be the Corps-recognized OHWM boundaries as though they applied.

Regional Water Quality Control Board

GLA established the extent of impacts associated with waters of the State in an updated Jurisdictional Delineation Report dated August 28, 2017. The Project site contains four drainage systems, portions of which contain features displaying an OHWM. The OHWM is the measured extent the Corps generally uses to establish limits of jurisdiction. The OHWM is indicated by physical characteristics such as a clear, natural line impressed on the bank of a stream or drainage, shelving, changes in soil, scouring, and the hydrological emplacement of stream litter and other debris.

Approximately 0.6 acre of potential RWQCB jurisdictional area is present across the 878.1-acre Project site and 0.45 acre of that total would be affected by Project implementation. There are no wetlands contained within any affected areas. Due to the absence of “waters” of the U.S., the RWQCB generally acknowledges that a Section 401 Water Quality Certification under the federal Clean Water Act will not be necessary. However, the state’s Porter Cologne Water Quality Act (Section 13260) requires that any entity which discharges “waste” into waters of the state has the obligation to obtain a Waste Discharge Permit. Impacts are not expected to be potentially significant with implementation of water quality control mitigation measures routinely required by the City, and any specific requirements contained in the Water Discharge Permit that would be obtained by the Applicant.

California Department of Fish and Wildlife

In accordance with Sections 1600-16-3 of the California Fish and Game Code, CDFW regulates all diversions, obstructions, or changes to the natural flow or bed, channel, or bank of any river, stream, or lake, which supports fish or wildlife.

CDFW jurisdiction across the approximately 878.1-acre property comprises approximately two acres, which GLA calculated is comprised of approximately 1.5 acres of riparian vegetation and the balance is either unvegetated or supports upland vegetation. The proposed Project would result in the loss of approximately 9,002 linear feet of “streambed” which in total comprises approximately 0.5 acre of jurisdiction. GLA determined that no riparian vegetation would be affected with project implementation.

Therefore, project development and operation will not adversely affect federally protected wetlands. No impact to federally protected wetlands will result.

Threshold BIO-4 Would the Project 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?

Less Than Significant Impact.

The Project site is comprised of approximately 878.1 acres. Forty-seven percent of that area would remain as natural habitat around the perimeter of the Area A development footprint and south of the Project's physical impact footprint within Area B. The General Biological Assessment analyzed the Project area in terms of the likely roles the approximately 878.1-acre property likely has in the maintenance of habitat connectivity in the regional area. Those differing roles, condensed below, were evaluated within the following very broad considerations:

- Regional Connectivity via the Sierra Pelona Range, Liebre Mountains and San Gabriel Mountains;
- Connectivity with the region's Significant Ecological Areas (SEA's); and,
- Constrained Connectivity Within the Antelope Valley Rim (Project's lower elevational zones),

Sierra Pelona Range/Liebre Mountains/ San Gabriel Mountains Connectivity

The retention of approximately 395 acres of natural habitats on-site precludes the elimination of regional connectivity from the Antelope Valley floor into the surrounding mountains via arroyos and secondary ridgelines surrounding the project development footprint.

Per TeraCor, the Project site overlies landforms that include 1) montane ridgelines and associated secondary and tertiary ridgelines; 2) canyons and arroyos; and, 3) the Antelope Valley floor. Numerous ridgelines, canyons and arroyos will persist in the Project open space and in the immediate vicinity of the Project site after full development. Secondary and tertiary ridges and arroyos will remain northwest of the Project zone between the Project site and the Anaverde Nuevo project. A similar situation will persist between the Lakeview/Tovey Avenue neighborhood and the Project site, although this easterly zone is more constrained in terms of the prevalence of rural large lot development. Avenues of dispersal on each side of the Project site remain constrained by Avenue S, the California Aqueduct, the Lower Tovey/Hernandez neighborhood, and the Antelope Valley Landfill. However, these same constraints currently can inhibit movement and connectivity to the Project site in its pre-development condition, but they do not eliminate the potential for transmissivity and connectedness entirely.

Antelope Valley Rim and SEA Connectivity

The lower elevation grassland and scrub habitats at the rim of the Antelope Valley are somewhat disturbed and discontinuous. Avoidance of approximately 395 acres of habitat around the Project site would be expected to permit not only adequate movement into and out of the greater San Gabriel Mountain habitat complex, but it would allow animals access into these already constrained habitat areas, which probably function at a reduced level of transmissivity on all biogeographic levels. The proposed project, therefore, with avoidance of approximately 395 acres of natural habitats on-site, is expected to generate a less-than-significant effect to regional connectivity and genetic transmission.

Threshold BIO-6 Would the Project conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or State habitat conservation plan?

Less Than Significant Impact.

The City of Palmdale and County of Los Angeles have not adopted a habitat conservation plan or natural community conservation plan that include the Project site. However, Significant Ecological Areas are areas where the County of Los Angeles deems it important to facilitate a balance between development and

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biological resource conservation. The closest Significant Ecological Area to the Project site is the Santa Clara River SEA No. 20, which is approximately one mile south of the Project site over the Sierra Pelona in the headwaters of the Santa Clara River.

Connectivity and biogeographic relationship of the Project site to the Santa Clara River SEA No. 20 could be presumed for animals which could exploit both the upland habitats of the Project site and the riparian wash woodland habitats of the Santa Clara River. Birds and high mobility organisms could move directly up and over ridgelines from the Project site and down through the Acton area into the Santa Clara River watershed, and vice versa. Movement of low mobility organisms is less likely, but not completely infeasible.

The Project site is approximately 2.5 miles from the nearest SEA to the northwest; the San Andreas SEA No. 17. It appears the Project site could have an indirect relationship to SEA No. 17 and would consist of the incidental dispersal of flora and fauna out of the hills, onto the valley floor, through fragmented habitat areas, across Avenue S, past the Anaverde Nuevo project, over and through the fenced aqueduct infrastructure and swift-moving surface water, over SR-138, and into the San Andreas SEA. The SEA terminates on Ritter Ridge.

Constrained Connectivity

As previously described above, altered conditions and pre-existing development in the proximity of the Project area already constrain or inhibit to some extent the navigation of certain species (or suites of species). The Project provides approximately 395 acres of natural habitats on-site, particularly around the centrally clustered development envelope, as shown on **Exhibit 4.4-5 (Biogeographic Aerial Photo)**. Due to the existing constrained connectivity surrounding the Project site and the avoidance of approximately 395 acres of natural habitats on-site, Project development will not conflict with any habitat conservation plan. Therefore, there will be no significant impact.

Development on the LAFCO-approved non-Quail Valley properties proposed for annexation would require site-specific environmental analysis of potential impacts pertaining to CEQA-identified Biological Resources topics for analysis. The non-Quail Valley areas within the overall annexation boundary include vacant lots, lots with existing housing, and the proposed Falcon Glen project area. The Falcon Glen project area is currently vacant land.

4.4.9 CUMULATIVE IMPACTS

Cumulative impacts are defined in Section 15355 of the *State CEQA Guidelines* as “two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts.” Stated another way, a cumulative impact would occur from the combined effects of the proposed project and other projects in the vicinity or region.

Implementation of the Mitigation Measures identified would ensure the Project development and implementation would not contribute to a cumulative loss of native desert habitat in the region. Additionally, approximately 395 acres of the project area will be preserved, including suitable habitat for special-status plants and wildlife identified on site. Furthermore, existing biological resources within the project area currently experience a level of adverse impact due to the adjacent residential and recreational uses to the north and east and most wildlife species that could be expected to use the Project area regularly are species that are adapted to disturbance of the type that is caused by urban development.

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Future development of other planned projects within the Antelope Valley would contribute to the cumulative loss of natural habitat. However, because of the existing influence of residential and recreational uses immediately north and east of the project site, it is not likely that development of the project site would contribute significantly to cumulative adverse impacts to regional flora and fauna.

Development on the LAFCO-approved non-Quail Valley properties proposed for annexation would require site-specific environmental analysis of potential cumulative impacts pertaining to CEQA-identified Biological Resources topics for analysis.

4.4.10 LEVEL OF SIGNIFICANCE BEFORE MITIGATION

As previously indicated, Project development impacts to habitat that supports Special-Status Plant Species (Peirson's morning glory and Short-joint beavertail cactus), to the western Joshua tree, and to California junipers could be considered Potentially Significant prior to implementation of any Mitigation.

4.4.11 MITIGATION MEASURES

The following mitigation measures are recommended to avoid, minimize, or reduce potentially significant impacts to biological resources. Potential Project impacts include impacts to on-site biological resources in the following resource categories: vegetation communities, common animals, and plants, regulatory (or "special") status animal species, regulatory (or "special") status plant species, any nesting birds, western Joshua tree and California junipers, localized/regional habitat connectivity, and jurisdictional waters and streambeds. These measures, if successfully implemented, would reduce potential project impacts to biological resources to less than significant, and minimize the potential to violate state and federal laws and regulations protecting certain wildlife species.

MM-BIO-1

The Project developer shall not further subdivide for development approximately 35.1 acres (45 percent of the site) of natural habitat areas on the subject property. The Project developer shall avoid grading or otherwise modifying the natural habitats on-site that are designated for avoidance. Minor modification to the acreage (not to exceed 5 percent) will be allowed based on final engineering and mapping constraints, subject to the review and approval of the City Engineer, or equivalent, or his/her designee. The open space acres shall be owned by the Homeowners Association and protected from future development via provisions in the CC&Rs and also via deed restrictions. The intent is to ensure the avoided area remains as an open space component of the Project in perpetuity. The Developer or the Homeowners Association (HOA) may offer all or a portion of the open space property to a conservancy at some future date, but due in part to the complexity of conditions and rights contained in the existing easements, and the need for the OA or others to be able to access, repair, improve or maintain various roadways, drainage and other facilities, dedication is not a requirement.

MM-BIO-2

Deed restrictions shall be recorded in phases, in conjunction with Project development phasing to coordinate and align density transfer allocations with the concurrent deed restriction allocations to balance density transfers with protecting correlated avoided acreage (for instance, by adjacency), subject to the review and approval of the Planning Manager, or equivalent, or his/her designee.

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- MM-BIO-3** Prior to issuance of Grading Permits, a qualified biologist/botanist shall conduct an updated Joshua tree survey and the Project Applicant/Developer(s) shall comply with all provisions of the City of Palmdale Municipal Code Chapter 14.04, Joshua Tree and Native Desert Vegetation Preservation, and the Desert Vegetation Preservation Plan prepared for the Project, including if required, obtaining a Native Vegetation Removal Permit issued by the City Landscape Architect or by the Director of Public Works' designee.
- MM-BIO-4** Prior to the removal or relocation of any Joshua Trees on the Project site, the Developer shall prepare an updated Joshua Tree Survey in accordance with California Department of Fish and Wildlife. If Joshua Trees remain as a Candidate Species indefinitely or should Joshua Trees be listed as Endangered/Threatened, an Incidental Take Permit shall be required by California Department of Fish and Wildlife. Evidence of compliance with this Mitigation Measure (and Condition of Approval) shall be submitted to the City of Palmdale prior to realizing any effects to Joshua Trees on the Project site.
- MM-BIO-5** A Trails Alignment and Management Plan shall be submitted to the City of Palmdale Planning Manager for review and approval. The Plan shall delineate the trail alignment on topographic mapping suitable for planning purposes and shall prescribe management goals, trail design and alignment, and activities for proper trail maintenance. The Plan shall include specific citations to be included in the Project CC&Rs regarding the limitations placed on motorized vehicles to control motorized vehicle entry into avoided areas of the Quail Valley Project. Restrictions shall not apply to existing easement holders, in-holding parcel owners, and others with an existing right to pass through the property.
- MM-BIO-6** To offset potential effects of trail development, all work to establish the unimproved trails connecting existing dirt roadways within Area A surrounding the Project development footprint shall be constructed by a trail contractor familiar with trail construction utilizing Best Management Practices to avoid poor switchback design, and trail-related erosion conditions. The qualified Project Biologist shall accompany any equipment operating in hillside areas. The contractor and Project Biologist shall coordinate design and operations to minimize potential impacts to Biological Resources.
- MM-BIO-7** To offset impacts to California Department of Fish and Wildlife-jurisdictional "streambeds" and Regional Water Quality Control Board-jurisdiction "waters," the Project Developer(s) shall obtain regulatory authorizations or waivers from the California Department of Fish and Wildlife and the Regional Water Quality Control Board and provide those authorizations to the City of Palmdale prior to issuance of Grading Permits.
- MM-BIO-8** To offset impacts to short-joint beavertail (*Opuntia basilaris* var. *bracycada*), specimens located within the Project's clearing and grading footprint would be salvaged by a qualified consultant from the site prior to grading and replanted elsewhere on-site to establish plantings as near as possible to the natural condition. All new trail areas outside the development footprint that are approved for the Project shall avoid all *Opuntia basilaris* var. *brachyclada* on the Quail Valley

property.

MM-BIO-9

Prior to issuance of a Grading Permit, the Project developer(s) shall create potential bat roosting habitat by installing up to three (3) bat roosting structures in suitable locations on the subject property, if authorized by the California Department of Fish and Wildlife. A qualified mammalogist will recommend the appropriate units that are most likely to be utilized by bat species that likely inhabit the area. No special bat surveys shall be required prior to placement of the units.

MM-BIO-10

If Project grading/construction activities are scheduled to occur during the nesting season for breeding birds (typically January 15th through September 30th), the following measures shall be implemented:

- a. Within seven days prior to commencement of grading/construction activities, a qualified biologist shall perform a pre-construction survey of all proposed work limits and within 500 feet of the proposed work limits.
- b. If active avian nest(s) of non-special status species are discovered within or 500 feet from the work limits, a buffer shall be delineated around the active nest(s) measuring 300 feet for passerines and 500 feet for raptors. A qualified biologist shall monitor the nest(s) weekly after commencement of grading/construction to ensure that nesting behavior is not adversely affected by such activities.
- c. If the qualified biologist determines that nesting behavior of nearby non-regulatory status species could be adversely affected by grading/construction activities, a qualified biologist shall conduct a pre-construction survey to determine the nesting status of birds near the proposed area of disturbance. If nesting birds are detected, the biologist would prepare a letter report and Mitigation Plan in conformance with applicable Federal and State laws (e.g., appropriate follow-up surveys, monitoring schedules, construction and noise barriers/buffers) to ensure that take of birds or eggs or disturbance of breeding activities is avoided. The report/Mitigation Plan would be submitted to the City for review/approval and implemented to the satisfaction of the City. The Biologist would verify in a report to the City that all measures identified in the Mitigation Plan are in place prior to and/or during construction. The report and Mitigation Plan shall be implemented in consultation with the California Department of Fish and Wildlife, to allow such activities to proceed. Once the young have fledged and all nests are inactive, then grading/construction activities may proceed within 300 feet (500 feet for raptor species) of the fledged nest(s).
- d. A single visit burrowing owl survey for all suitable areas of the Project site shall be performed within 30 days prior to any ground disturbing activities to ensure the absence of burrowing owl within the boundaries of disturbance. If the presence of burrowing owls is discovered, the California Department of Fish and Wildlife shall be consulted, and standard protocols shall be adhered to, prior to the occurrence of any ground disturbance.

MM-BIO-11

The Project Developer(s) shall retain a qualified biological monitor to monitor

brush and tree removal and initial grading activities on the subject property. The monitor would ensure compliance with these Mitigation Measures. The monitor shall work with the Developer(s) and grading contractor to ensure orderly vegetation clearing to allow organisms an opportunity for escape.

- MM-BIO-12** The Project Developer(s) shall provide all grading and construction contractors with copies of all Mitigation Measures required to reduce impacts to Biological Resources. Additionally, a pre-construction site meeting shall be conducted on-site with the grading contractor wherein verbal instruction shall be provided by the Project Biologist to ensure clear understanding that Biological Resources are to be avoided on the subject property in accordance with the Mitigation Measures. A brief brochure depicting types of sensitive Biological Resources on-site shall be provided to brush-clearing and grading contractors.
- MM-BIO-13** The Project Developer(s) shall utilize reasonable commercially-available native seed material appropriate for the Antelope Valley for use in hydroseed applications on newly graded slopes, in consultation with the Project Biologist.
- MM-BIO-14** Project work areas subject to disturbance shall be limited to the smallest amount of disturbance practicable. Boundaries of all work areas should be clearly delineated by stakes and flagging or similar marking in the field prior to construction. A biological monitor shall approve all field avoidance staking. To avoid incidental impacts to adjoining habitat areas by construction personnel, “No Trespassing – Natural Habitat Area” signs shall be posted on each roadway at the edge of the construction area.
- MM-BIO-15** All food-related trash such as wrappers, cans, bottles, and food scraps shall be disposed of in closed containers and regularly removed from the Project site. No deliberate feeding of wildlife shall be allowed.
- MM-BIO-16** The Project Developer(s) shall implement dust control in conformance with Air Quality regulations and Best Management Practices.
- MM-BIO-17** All lighting adjacent to natural areas shall be of low luminescence, directed downward or toward structures, and shielded to the extent necessary to prevent artificial illumination of natural areas and protect nocturnal Biological Resources, as determined appropriate by qualified biologist.
- MM-BIO-18** Prior to issuance of the first Certificate of Occupancy, the Project Developer(s) shall prepare homeowner notifications and an education brochure advising homeowners of deed restrictions in deed-restricted areas, and CC&R requirements to maintain natural open space in a natural condition.

4.4.12 LEVEL OF SIGNIFICANCE AFTER MITIGATION

Implementation of the Mitigation Measures described above would reduce all impacts to Biological Resources to a less than significant level.

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4.5 Cultural Resources

Information for this section is derived from the following: City of Palmdale General Plan: “Palmdale 2045” – Environmental Resources Element; Los Angeles County General Plan 2035 (October 6, 2015); City Ranch (Anaverde) Specific Plan (May 10, 1992); Cogstone, “Confidential Cultural and Paleontological Assessment Report and Mitigation Plan – Update for the Quail Valley Project, California,” (February 2017); Cogstone “Supplemental Cultural Resources Memorandum for the Quail Valley Planned Development Project” (October 5, 2023) , and the Quail Valley Planned Development plans.

4.5.1 ENVIRONMENTAL SETTING

Natural Setting

The approximately 878.1-acre Project site is located in the Anaverde Valley, along the southern flank of the greater Antelope Valley approximately one mile southwest of the City of Palmdale. This area is the western-most portion of the Mojave Desert. The Anaverde Valley is bounded by the Ritter Ridge to the north and by the Sierra Pelona foothills to the south. Project site elevations range from approximately 1,940 feet to 3,400 feet above mean sea level.

Geologic mapping of the Project site and vicinity indicates the Project site is situated on a gently sloping, broad alluvial fan underlain by sedimentary rock units that include older dissected surficial sediments. These units overlay metamorphic rock formations assigned to the Pelona Schist. Surficial deposits within the Project boundary are composed exclusively of Pleistocene and/or Holocene alluvium. Outcrops of Pelona Schist and veins of quartz are common in the Project area. Portola Schist, granite and rhyolite outcrops occur to the north of the Project site. Soils within the Project site generally are poorly developed and consist of alluvium with decomposing schists and quartz gravels.

Natural Environment in Prehistoric Times

The Mojave Desert is characterized by broad swaths of relatively unproductive habitat punctuated by resource patches of uncertain value. This contrasts with the remainder of the Great Basin, which demonstrates strong vertical zoning in plant communities, more regular water sources, and greater uniformity in spatial and temporal distribution of subsistence resources.

Conditions in the Mojave Desert generally were cool and wet during the Late Pleistocene 18,000 to 8,000 years B.C. During the Early Holocene (8,000 to 6,000 years B.C.), conditions were somewhat cooler and moister than conditions today. The Middle Holocene (6,000 to 3,000 B.C.) was a warmer and drier climate than the modern era. The climate became moderately cooler and wetter again during the Late Holocene (3,000 B.C. to the present), with occasional periods of drought. Creosote biotic communities first became established around 4,900 years B.C. or soon thereafter.

Short-term and long-term trends in environmental productivity likely had strong influences on the mode and tempo of occupation strategies affecting local and regional land use patterns. To the extent prehistoric populations could monitor location and magnitude of storm tracks or precipitation levels, they must have been able to predict which habitats and resources would produce the highest net foraging returns. It is possible that large tracts of the Mojave Desert were effectively abandoned or rarely visited during particular

periods of time. In some cases, these climatic changes are thought to have been coincident with major technological or subsistence adjustments (Sutton et al. 2007).

Prehistoric Setting

The Cultural and Paleontological Assessment Report and Mitigation Plan prepared for the Project site relies on M. Sutton, M. Basgall, J. Gardner and M. Allen, “Advances in Understanding Mojave Desert Prehistory,” in *California Prehistory: Colonization, Culture and Complexity* (edited by T. Jones and K. Klar) to summarize the following prehistory of the Antelope Valley.

Pleistocene

The sole cultural complex dating to the Pleistocene that has been confidently identified in the Mojave Desert is Clovis (10,000 to 8,000 years B.C.), which is marked by characteristic fluted projectile points of the same name and which appear more commonly in the north and west sectors of the Mojave Desert. These are areas of substantial, external stream runoff that would have been well-watered into the Early Holocene. The nature of Paleo-Indian cultural systems remains poorly defined in that they were most likely a highly mobile people, living in small, temporary camps near then permanent sources of water.

Early Holocene

The sole coherent cultural pattern during the Early Holocene period was the Lake Mojave complex, which dates between 8,000-6,000 years B.C. The Lake Mojave complex is characterized by projectile points of the Great Basin Stemmed series and abundant bifaces, as well as steep-edged unifaces, crescents, occasional cobble-core tools, and ground stone implements. Flaked stone artifacts in Lake Mojave assemblages include tools that are consistent with long-term use and transport. Extra-local materials are common and suggest extensive annual foraging ranges; marine shell beads imply wide spheres of interaction. Small numbers of ground stone implements occur regularly within these components.

Extensive residential accumulations are known to exist in addition to workshops and small camps. The large sites appear to be functionally the same as smaller sites and represent locations of recurrent use rather than different settlement types. Thus, the Lake Mojave pattern appears to reflect a forager-like strategy organized around relatively small social units.

Middle Holocene

Multiple culturally and technologically distinct populations inhabited and exploited the Mojave Desert during the Middle Holocene period. The primary cultural complex associated with the Middle Holocene is called Pinto. There was a temporal overlap between Lake Mojave and Pinto complexes, with Pinto slightly later in time. The Pinto complex has the most widespread expression of any of the early cultural complexes. The most important distinction between the Lake Mojave and the Pinto assemblages pertains to the prevalence of ground stone implements. Milling tools are relatively abundant in almost all known Pinto deposits and sometimes occur in high frequency. Intensive levels of plant processing began by about 7,000 years B.C., which coincides with the emergence of similar economies along the Pacific Coast.

Sites of the Pinto complex occur in a diverse range of topographic and environmental zones. Larger sites that likely correlate with well-watered locations contain substantial middens and a breadth of cultural debris absent at smaller sites. Residential bases occupied for prolonged periods by moderate-to-large numbers of people likely consisted of multiple families, which suggests a collector-like settlement strategy. Access to

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plant resources probably was a key determinant for site placement, as indicated by high frequencies of milling tools at many of such sites. Patterns of animal exploitation remain similar to those of the Lake Mojave complex.

Late Holocene

The earliest Late Holocene complex is termed “Gypsum” and dates approximately from 2,000 years B.C. to A.D. 200. The Gypsum complex is relatively scarce in the southern and western reaches of the Mojave Desert.

During the early part of the Gypsum complex, it is thought that settlement and subsistence activities were centered near streams. Also, it appears trade and social complexity increased. Gypsum sites are more numerous than those of preceding occupations and are found over a more diverse array of geographic locations. Artifact assemblages include evidence of ritual activities including quartz crystals, paint and rock art, and numerous bifaces. Exploitation of deer, jackrabbits, cottontails and rodents also are evident.

The Rose Springs complex is marked by regional appearance of the bow and arrow, beginning about A.D. 200. Common artifacts include Eastgate and Rose Springs series projectile points, stone knives, drills, pipes, bone awls, various milling implements, marine shell ornaments, and large quantities of obsidian. Most of the obsidian has been sourced to the Coso Volcanic Field, which demonstrates either travel to the southern Owens Valley or trade with people living in that vicinity. Rose Springs sites commonly are found near springs, along washes, and occasionally along lakeshores. Evidence of architecture includes wickiups, pit houses, and other types of structures suggesting intensive occupations. Populations in the Desert appear to have reached their peak during this era.

After about A.D. 1100, environmental conditions continued to deteriorate, populations appear to have declined, new technologies were introduced, and a number of separate cultural complexes emerged that are believed to represent prehistoric aspects of known ethnographic groups. Late Prehistoric occupation sites represent a variety of types that include a few major villages with associated cemeteries, special purpose sites, and seasonal sites. Artifact assemblages consist of Desert series projectile points, buffware and brownware ceramics, shell and steatite beads, slate pendants, incised stones, and a variety of milling tools. Obsidian use decreased while use of cryptocrystalline silica appears to have increased during this period.

Ethnography

The Antelope Valley had two geographical characteristics that influenced Native American life. First, its location was a natural access corridor and principal trade route that linked the California coast with early trails extending south to Mexico, north into California’s Central Valley, and east as far as the Southwest culture region. Secondly, the Antelope Valley had an abundance of natural springs and lakes. These two factors combined to result in the flourishing of Native American trade and interaction routes through the Antelope Valley as early as at least 3,000 to 4,000 years ago. As a consequence, a number of sizeable permanent villages persisted over several millennia because Antelope Valley residents could take advantage of both coastal and desert resources and adaptation. The Project site is located near the north end of Soledad Pass, which is a major natural travel and trade corridor between the Mojave Desert and the California coast.

The Project area is situated within the traditional use areas of the Vanyumé/Serrano. The area also is close to the boundary with the Tataviam. Other neighboring groups were the Kitanemuk, Kawaiisu, and Gabrielino. Many other groups, including the Mojave and the Southern Pauite/Chemehuevi, traveled through the Project site vicinity. In addition, closely related clans of the Serrano and Vanyumé (Beñemé;

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or, Desert Serranos) inhabited the southeastern Antelope Valley, Cajon Pass, upper Mojave River drainages, and the San Fernando Mountains.

By the early 1800s, after removal of most Takic populations into the Spanish mission system, Numic-speaking Southern Paiute/Chemehuevi groups from interior Desert areas began to move southward along the Mojave River and into the Antelope Valley. The first fully documented Spanish contact in the Project site vicinity occurred in 1776 when a Franciscan priest named Father Francisco Garces traversed through the Mojave Desert on his way to Monterey. Increasingly the people of Antelope Valley were being “resettled” to the San Fernando Mission. In 1808, a Spanish military expedition was dispatched to the Antelope Valley. By 1811, Mission records indicated “resettlement” of at least two entire villages had been completed.

The slow decline in the Native American population of the Antelope Valley followed that of other native California societies. Disease spread by contact with the Spanish missions and forced labor continued to take a toll on the local Native American population. Few Antelope Valley Indians remained by 1848 when California became a United States territory.

History

The City of Palmdale grew out of two previous Antelope Valley communities: Swiss and German settlers founded Palmenthal and Harold in 1886, and named the new community Palmenthal after mistaking the local Joshua trees for palm trees. Harold was founded at the junction of the Southern Pacific Railroad and Fort Tejon Road. At its peak, the settlement only had five buildings, none of which remain today. Palmenthal residents were predominantly railroad laborers. By the late 1890s, most of the town was deserted after the railroad shifted its operations north toward Mojave. A devastating drought in the 1890s halted homesteading and agriculture in the Antelope Valley; communities were virtually abandoned. Following the drought, innovations in water delivery revived Antelope Valley agricultural industries. Antelope Valley became known as the “land of almonds and perpetual sunshine” and the greatest almond and alfalfa-growing section of Southern California.

The United States Congress passed the Small Tract Act (STA) in 1938. The STA was one of many land acts designed to dispose of “useless” federal lands from the public domain by authorizing the lease of up to five acres of public land for recreation purpose or use as a home, cabin, camp, health, convalescent, or business site to able-bodied United States citizens. If an applicant made necessary improvements to his claim by constructing a small dwelling within three years of the lease, the applicant could file for a patent after purchasing the parcel for the appraised price at the regional land office.

Homesteading accelerated after the end of World War II when building materials became readily available and gas and tire rationing ended. “Jackrabbit homesteading” drew people from all economic levels. Not only were people able to own land but the requirements for the five-acre homesteads did not necessitate that they live on the land as the original homestead laws required.

The United States military use of the nearby Rogers and Rosamond lakebeds began in the early 1930s. World War II changed the demography and economy of the Palmdale area. The War Department established Muroc Army Airfield as a pilot training facility in 1942. In 1949, Muroc Air Force Base was renamed Edwards Air Force Base in honor of Captain Glen Edwards. Today, the United States Air Force Plant 42 has become home to the B1 and B2 stealth bombers, the F-117A stealth fighter, the SR 71 “Blackbird,” and the U-2. The Air Force Flight Test Center carries out programs to test all these planes and was a landing and training station for the National Aeronautics and Space Administration space shuttle

crews. Additionally, overseas drones are digitally flown from Edwards Air Base.

4.5.2 REGULATORY FRAMEWORK

Federal Regulations

National Historic Preservation Act (1966)

The goal of this Act is to ensure federal agencies act as responsible stewards of resources in the United States when actions affect historic properties. There are no resources on the Project site that are listed on the National Register of Historic Places. Therefore, the provisions of this Act do not pertain to the Project.

National Register of Historic Places (1981)

The National Register of Historic Places provides a guide for governmental entities, private groups and citizens to identify the nation's cultural resources and to indicate what properties should be considered for protection from destruction or impairment. Listing of a site on the National Register generally does not result in any specific physical protection, but does create an additional level of CEQA and National Environmental Protection Act review to be completed prior to approval of any discretionary action occurring that might adversely affect the listed resource. There are no historic places on the Project site. The Project site has no Federally-listed historic structures, sites, districts, or objects. Therefore, the provisions of the National Register of Historic Places do not pertain to the Project.

National Historic Landmarks Program (1982)

This Program, as authorized by the Historic Site Act and as administered by the Department of the Interior, identifies and designates National Historic Landmarks to “encourage the long-range preservation of nationally-significant properties that illustrate or commemorate the history and prehistory of the U.S.” Sites listed on the National Historic Landmarks are explicitly preserved and protected from harm under federal law. There are no historic landmarks on the Project site. Therefore, the provisions of the National Register of Historic Places do not pertain to the Project.

Federal Antiquities Act (1906)

To protect cultural resources in the United States, this Act explicitly prohibits appropriation, excavation, injury and destruction of “any historic or prehistoric ruin or monument, or any object of antiquity” located on lands owned or controlled by the federal government without permission of the Secretary of the federal department with jurisdiction and establishes criminal penalties for these acts. This Act and its implementing regulations do not specifically mention paleontological resources. However, several federal agencies, including the National Park Service, the Bureau of Land Management and the United States Forest Service, have interpreted objects of antiquity as including fossils.

Paleontological Resources Preservation Act (2002)

This Act intends to codify the generally-accepted practice of limiting collection on public (Federal) land of vertebrate fossils and other rare and scientifically significant fossils to qualified researchers who obtain a permit from the appropriate state or federal agency and agree to donate any materials recovered to recognized public institutions where they will remain accessible to the public and to other researchers. The

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Project site is privately owned, not public property. Therefore, the provisions of this Act do not pertain to the Project.

Actions by the United States Army Corps of Engineers

The United States Army Corps of Engineers has established procedures to be followed to fulfill requirements of the National Historic Preservation Act and other applicable historic preservation laws. The United States Army Corps of Engineers has no jurisdiction over the environment on the Project site.

State Regulations

California State Public Resources Code

California State Public Resources Code policies and regulations protect archaeological, paleontological and historical sites. CEQA further protects cultural and paleontological resources because those resources are considered to be non-renewable. Public Resources Code protections are as follows.

- Sections 5020-5029.5 – provides for continuation of the former Historical Landmarks Advisory Committee as the State Historical Resources Commission, which is in charge of overseeing the administration of the California Register of Historical Resources and is responsible for designation of State Historical Landmarks and Historical Points of Interest;
- Sections 5079-5079.65 – provides definitions of the functions and duties of the Office of Historic Preservation, which is responsible for administration of federally and state-mandated historic preservation programs in California and the California Heritage Fund; and,
- Sections 5097.9-5097.998 – provides protection to Native American historical and cultural resources and sacred sites and identifies powers and duties of the Native American Heritage Commission; requires notification to descendants of discoveries of Native American human remains and provides for treatment and disposition of human remains and associated grave materials.

California Administrative Code, Title 14, Section 4308

This section of the California Administrative Code states “no person shall remove, injure, deface or destroy any object of paleontological, archeological or historical interest or value.”

California Code of Regulations, Title 14, Section 1427

Recognizing that California’s archaeological resources “are endangered by urban development and population growth and by natural forces,” these Regulations state “these resources need to be preserved in order to illuminate and increase public knowledge concerning the historic and prehistoric past of California” and that any person “not the owner thereof, who willfully injures, disfigures, defaces or destroys any object or thing of archeological or historical interest or value, whether situated on private lands or within any public park or place, is guilty of a misdemeanor.”

California Register of Historic Resources

This Register is overseen by the State Office of Historic Preservation. The Register is intended to serve as an authoritative guide to California’s significant historical and archaeological resources. Listed resources must meet one of four “significance criteria” related to events, people, construction/artistic value or

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information and also must retain sufficient integrity to convey their significance. California Historical Landmarks are intended to recognize resources of Statewide significance. Points of historical Interest recognize resources of local or countywide significance. All listings on the National Register of Historic Resources are automatically added to the California Register of Historic Resources. Listing on a California Register generally does not result in any specific physical protection of the resource but does create an additional level of CEQA review to be conducted prior to any discretionary action occurring that might adversely affect the resource.

Regulation of Cultural Resources Pursuant to the Public Resources Code, Section 5097

This Section (5097) of the California Public Resources Code provides for the following:

- Outlines requirements for cultural resource analysis prior to commencement of any construction on State lands;
- Specifies that unauthorized disturbance or removal of archaeological, historical or paleontological resources located on public lands is a misdemeanor;
- Prohibits the knowing destruction of objects of antiquity without a permit on public lands and provides for criminal sanctions for violators;
- Requires consultation with the California Native Heritage Commission when Native American graves are found; and
- Establishes that violations for taking or possessing remains or artifacts are felonies.

California State Health and Safety Code

The California State Health and Safety Code (Section 7050.5(b) requires that excavation on a project site cease “in the event of discovery or recognition of any human remains in any location other than a dedicated cemetery” until the coroner can determine the circumstances, manner and cause of any death. The coroner then is required to make recommendations concerning treatment and disposition of the human remains. This Section also makes it a misdemeanor to intentionally disturb, mutilate or remove interred human remains. Section 7051 specifies removal of human remains from “internment or a place of storage while awaiting internment” with the intent to sell them or to dissect them with “malice or wantonness” is a public offense. Sections 8010-8011 establish the California Native American, Graves Protection and Repatriation Act consistent with the federal law addressing the same and, among other provisions, outlines the need for aiding California Indian tribes, including non-federally recognized tribes, in filing repatriation claims.

California Assembly Bill 52

California Governor Brown signed Assembly Bill Number 52 on September 25, 2014. California Assembly Bill 52 became effective on July 1, 2015. The legislation imposes new requirements for consultation regarding projects that may affect a tribal cultural resource, includes a broad definition of what may be considered to be a tribal cultural resource, and includes a list of recommended mitigation measures.

Assembly Bill 52 added tribal cultural resources to categories of cultural resources in CEQA. “Tribal resources” are defined as either (1) sites, features, places, cultural landscapes, sacred places and objects with cultural value to a California Native American tribe that are included in the State register of historical resources or a local register of historical resources, or that are determined to be eligible for inclusion in the State register; or, (2) resources determined by the lead agency, in its discretion, to be significant based on the criteria for listing in the State register. Under this legislation, a project that may cause a substantial adverse change in the significance of a tribal cultural resource is defined as a project that may have a significant effect on the environment. Where a project may have a significant impact on a tribal cultural

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resource, the lead agency's environmental document must discuss the impact and whether feasible alternatives or mitigation measures could avoid or substantially lessen the impact.

Assembly Bill 52 further requires lead agencies to provide notice to tribes that are traditionally and culturally affiliated with the geographic areas of a proposed project if they have requested notice of projects proposed within that area. If a tribe requests consultation within 30 days upon receipt of the notice, the lead agency must consult with the tribe. Consultation may include discussing type of environmental review necessary, significance of tribal cultural resources, significance of project impacts on tribal cultural resources, and alternatives and mitigation measures recommended by the tribe. The parties must consult in good faith, and consultation is considered concluded when either the parties agree to measures to mitigate or avoid a significant effect on a tribal cultural resource (if such a significant effect exists) or when a party concludes mutual agreement cannot be attained.

The legislation also identifies mitigation measures that may be considered to avoid significant impacts if there is no agreement on appropriate mitigation. Recommended measures include the following:

- Preservation in place;
- Protecting the cultural character and integrity of the resource;
- Protecting the traditional use of the resource;
- Protecting the confidentiality of the resource; and,
- Permanent conservation easements with culturally appropriate management criteria.

Local Regulations

City of Palmdale General Plan (Palmdale 2045)

Palmdale 2045 contains Goals and Policies designed to identify, protect and mitigate damage to Cultural Resources within the City boundaries. A General Plan Consistency Assessment of Palmdale 2045 Goals and Policies, relevant to the Quail Valley Project Cultural Resources analysis is contained in **Appendix A** of this EIR.

Conservation Element

- Goal CON-8:** **Protect Historical and Culturally Significant Resources, which Contribute to the Community's Sense of History.**
- Policy CON-8.4:** **Preservation in New Development.** Require that new development preserve significant historic, paleontological, or archaeological resources.
- Policy CON-8.5:** **Tribal Consultation.** Conduct Native American consultation consistent with the applicable regulations when new development is proposed in potentially culturally sensitive areas.
- Policy CON-8.6:** **Discovery Coordination with Tribal Groups.** When human remains suspected to be of Native American origin are discovered, coordinate with the Native American Heritage Commission and any local Native American groups to determine the most appropriate course of action.

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Goal CON-9: **Promote Community Design that Reflects Palmdale’s History and Preserves Palmdale’s Cultural Resources.**

Sustainability, Climate Action, and Resilience Element

Policy SCR-9.2: **Acknowledge Indigenous History.** Acknowledge and celebrate the indigenous history and tradition of the area now known as Palmdale.

4.5.3 THRESHOLDS FOR DETERMINING SIGNIFICANCE

According to Appendix G of the CEQA Guidelines, a project will normally have a significant adverse environmental impact on cultural resources if it would:

Threshold CUL-1 Cause a substantial adverse change in the significance of a historical resource pursuant to [California Code of Regulations] Section 15064.5.

Threshold CUL-2 Cause a substantial adverse change in the significance of an archaeological resource pursuant to [California Code of Regulations] Section 15064.5.

4.5.3 THRESHOLDS FOR DETERMINING SIGNIFICANCE

According to Appendix G of the CEQA Guidelines, a project will normally have a significant adverse environmental impact on cultural resources if it would:

Threshold CUL-1 Cause a substantial adverse change in the significance of a historical resource pursuant to [California Code of Regulations] Section 15064.5.

Threshold CUL-2 Cause a substantial adverse change in the significance of an archaeological resource pursuant to [California Code of Regulations] Section 15064.5.

Threshold CUL-3 Disturb any human remains, including those interred outside of dedicated cemeteries.

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4.5.4 ENVIRONMENTAL IMPACT

Impact Analysis

Threshold CUL-1 Would the Project cause a substantial adverse change in the significance of a historical resource pursuant to California Code of Regulations, Section 15064.5?

No Impact.

California Code of Regulations Section 15064.5(a) defines a “historical resource” as the following:

- A resource listed in, or determined to be eligible by the State Historical Resources Commission for listing in the California Register of Historical Resources;
- A resource included in a local register of historical resources, as defined in California Public Resources Code Section 5020.1(k) or identified as significant in a historical resource survey meeting requirement of Public Resources Code Section 5024.1(g), shall be presumed to be historically or culturally significant. Public agencies are required to treat any such resource as significant unless the preponderance of evidence demonstrates it is not historically or culturally significant; or,
- Any object, building, structure, size, area, place, record or manuscript that a lead agency determines to be historically significant or significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military or in cultural annals of California may be considered to be a historical resource, provided the lead agency’s determination is supported by substantial evidence in light of the entire record. In general, a resource shall be considered by the lead agency to be “historically significant” if the resource meets the criteria for listing on the California Register of Historic Places, including the following:
 - Is associated with events that have made a significant contribution to broad patterns of California history and cultural heritage;
 - Is associated with lives of persons important to California’s past;
 - Embodies distinctive characteristics of a type, period, region or method of construction, or represents the work of an important creative individual, or possesses high artistic values; or,
 - Has yielded, or may be likely to yield, information important in prehistory or history.

Palmdale 2045 does not identify any historical resources on the Project site. Therefore, Project development and operation would not alter or destroy a historical resource as defined in Section 15064.5.

Cogstone indicates that “no historical built environment resources are present” on the Project site. Therefore, Project development and operation would not cause a substantial adverse change in the significance of a historical resource pursuant to California Code of Regulations Section 15064.5. No impact will result.

Tribal Cultural Resource

Cogstone staff conducted a survey of the Project site development area in 2004. The 2004 survey located and recorded one previously undocumented prehistoric archaeological site, which consists of 38 defined cupules and a meandering groove on several sides of a rock outcrop. Cupules typically are small, purposefully ground depressions in rock. The study was updated in February 2017 and a revisit by the archaeologist revealed one, and possibly two, pecked snakes in the same location not previously observed. The Cultural and Paleontological Assessment conducted for the Project site indicates that this site is a Tribal Cultural Resource under CEQA. In 2023, Cogstone conducted a supplemental cultural records search on

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August 21, 2023. The search did not identify any new cultural resource studies or newly recorded archaeological resources in the Project Area since 2017. One historic built environment linear resource, P-19-192581 was identified that was not included in the 2017 assessment (Gust and Knight). This resource was previously evaluated for eligibility by Tinsley Becker and recommended not eligible for listing in the NRHP and CRHR. This recommendation of ineligibility was reaffirmed in all subsequent site revisits and reevaluations. As it is not eligible for listing, this resource requires no further consideration. As indicated in the Supplemental Cultural Resources Memorandum (dated October 5, 2023) prepared by Cogstone.

The recommendations in the 2017 Cogstone assessment continue to be appropriate. Other prehistoric sites may be revealed when vegetation is removed from the project development area. Thereby, Cogstone stated in the Supplemental Memorandum that it “...continue[s] to recommend a qualified archaeologist/principal investigator be retained to maintain professional standards, attend the pre-grade meeting, and direct work during construction activities. Full-time archaeological and Native American monitoring are recommended for all earthmoving in native sediments due to the lack of ground visibility and the presence of a ceremonial feature. This includes all grubbing and vegetation removal. There will be a team of one archaeological monitor and one Native American monitor assigned to each area of excavation during earth-moving operations. During periods of large area grubbing or cut-fill operations where excavations are spread out and not centrally observable by one team, the qualified archaeologist may specify one team per equipment operator. These recommendations are memorialized in Mitigation Measures below.

The project development area will not extend into this resource. The Project Applicant/Developer has agreed to full-time archaeological and Native American monitoring for all earth disturbance including grubbing and vegetation removal. This resource, as well as any impacts pertaining to Tribal Cultural Resources will be discussed further in Section 4.18 Tribal Cultural Resources of this document.

Threshold CUL-2 Would the Project cause a substantial adverse change in the significance of an archaeological resource pursuant to [California Code of Regulations] Section 15064.5?

Less Than Significant Impact with Mitigation Incorporated.

The Cultural and Paleontological Assessment conducted for the Project site indicated that an updated search for archaeological and historic records was completed at the South-Central Coastal Information Center on January 17, 2017, to supplement an original 2004 survey of the Project development impact area. An additional search was conducted on August 21, 2023. The Project site and a one-mile radius were searched for cultural resources. One prehistoric site had been recorded previously. In addition, a historic but active electrical transmission line extends across an open space portion of the Project. It was found that there are two records within one-quarter mile of the Project site, four records between one-quarter and one-half mile from the Project site, and 15 records between one-half mile and one mile (in addition to those records within the Project site). By type, there are five prehistoric sites, five prehistoric isolates, two multi-component sites, two historic structures, eight historical archaeological sites, and one historical archaeology isolate (total of 23). Cultural resources within one mile of the Project site total 62.

The rock art components at are unusual in that finely pecked petroglyphs and cupules are directly associated. Pecked petroglyphs, which are present at are very scarce in the western Mojave Desert and surrounding mountains.

Cupules are circular depressions that are carved, pecked, or ground into horizontal, vertical or angled rock surfaces to create a pattern of pits. The cupules in the Project site belong to the “Far Western Pit and

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Groove Tradition” that is widespread throughout California, the Great Basin, and the Columbia Plateau. Cupules usually are relatively shallow in relation to their diameters, vary in size from a few centimeters to more than 15 centimeters in size, range in number on any given boulder from a few to dozens, and are sometimes associated with linear grooves or other rock art.

Project development area will not extend into this resource. However, implementation of the following Mitigation Measures will ensure any potential impact resulting from Project development will be reduced to a less than significant level.

Threshold CUL-3 Would the Project disturb any human remains, including those interred outside of dedicated cemeteries?

Less Than Significant Impact with Mitigation Incorporated.

The Project site is considered sensitive for buried cultural resources because numerous prehistoric archaeological sites have been identified in the vicinity of the Project site and because of the past presence of several Native American tribal groups in the Project site vicinity. If human bones are discovered during Project development, the Los Angeles County Coroner must be notified in accordance with California Health and Safety Code Section 7050.5. The Coroner then will determine if the remains are subject to his/her/they authority. If the Coroner recognizes the remains to be Native American, he/she/they shall contact the Native American Heritage Commission by phone within 24 hours, in accordance with Public Resources Code Section 5097.98. The Native American Heritage Commission then will designate a Most Likely Descendant with respect to the human remains. The Most Likely Descendant then has the opportunity to recommend to the property owner or the person responsible for excavation work means for treating or disposing, with appropriate dignity, the human remains and associated grave goods. Work may not resume in the vicinity of the find until all requirements of the Health and Safety Code have been satisfied.

To ensure any impact to cultural resources would be lessened and remain less than significant, the following recommendations in the Cultural and Paleontological Assessment Report are formulated as Mitigation Measures. The Mitigation Measures meet CEQA and City of Palmdale requirements and, according to the Cultural Resources Assessment prepared for the Project, “... have been used throughout Southern California successfully in protecting resources while allowing timely completion of construction. The project specific measures have been carefully considered and serve to protect known resources to professional hazards.”

Development on the LAFCO-approved non-Quail Valley properties proposed for annexation would require site-specific environmental analysis of potential impacts pertaining to CEQA-identified Cultural Resources topics for analysis. The non-Quail Valley areas within the overall annexation boundary include vacant lots, lots with existing housing, and the proposed Falcon Glen project area. A Cultural Resource Analysis would be required as part of the Falcon Glen project approval process. The Falcon Glen project area is currently vacant land.

4.5.5 ***CUMULATIVE IMPACTS***

Historical Resources

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Records search and field surveys indicated no significant historical sites exist on the Project site or within properties in the Project vicinity subject to cumulative analysis. One archaeological site exists on the Project site, but would be preserved. Project development would not result in a cumulatively considerable impact to historical sites or resources.

Archaeological and Paleontological Resources

At least six other cupule sites are known in the Sierra Pelona foothills. There are two other cupule component sites located more than a mile to the west at the northern foot of the Sierra Pelona Mountains. Project development would not impact any known prehistoric archaeological resources on the Project site. In addition, the potential of Project development uncovering previously unknown prehistoric archaeological resources is low. These potential impacts would be specific to the Project site. Future development that would uncover archaeological or paleontological resources would be required to comply with all applicable State, Federal and City of Palmdale regulations governing preservation, salvage and handling of the discovered resources. Therefore, Project development and operation would not contribute to a significant cumulative impact to prehistoric archaeological sites and/or resources.

Human Remains

Required compliance with California Health and Safety Code Section 7050.5 as well as Public Resources Code Section 5097 *et. seq.* would assure all future development projects within the Project vicinity treat human remains that may be uncovered during Project grading or construction in accordance with prescribed, respectful and appropriate practices and thereby avoid cumulative impacts.

Development on the LAFCO-approved non-Quail Valley properties proposed for annexation would require site-specific environmental analysis of potential cumulative impacts pertaining to CEQA-identified Cultural Resources topics for analysis. Technical studies would be required.

4.5.6 LEVEL OF SIGNIFICANCE BEFORE MITIGATION

Grading will be necessary to prepare the property for accommodating the proposed residential and recreational uses. One archaeological resource exists on the Project site but will not be disturbed. Project development and operational impacts to historical and archaeological resources would remain less than significant.

There may be a possibility of the discovery of paleontological resources or human remains associated with Native American settlement beneath the surface that were not discovered during the initial survey and assessment of the Project site. Therefore, potential project development impacts to cultural resources or human remains discovery prior to mitigation could be potentially significant when evaluated according to CEQA Thresholds of Significance.

4.5.7 MITIGATION MEASURES

The following Mitigation Measures have been developed to reduce adverse impacts of Project development on Cultural Resources to an acceptable level. The Measures meet requirements of the City of Palmdale and CEQA. These general Mitigation Measures have been used throughout southern California and have been

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Environmental Impacts – Cultural Resources

demonstrated to be successful in protecting resources while allowing timely completion of Project development. The Project-specific Measures have been carefully considered and serve to protect known resources to professional standards.

- MM-CUL-1** A qualified principal investigator for archaeology and paleontology shall be retained to provide professional services pertaining to cultural resources on the Project site. The principal investigator shall be responsible to implement the Mitigation Plan and to maintain professional standards of work. Development of a Treatment Plan shall be required to avoid Project construction delays and shall be approved by the Director of Planning prior to issuance of a Grading Permit.
- MM-CUL-2** The principal investigator and designated Native American representative shall present background information to all attendees at the pre-grade meeting. Any new excavation personnel hired after this date shall be presented the background information by the archaeological and Native American monitors.
- MM-CUL-3** The rock art site (CA-LAN-3343) shall be preserved in place. During Project development it shall be fenced off with snow fencing placed 50 feet from the boulder complex and be considered a designated Environmentally Sensitive Area. The principal investigator shall be allowed to adjust the fencing on a temporary basis only to allow adjacent development to occur so long as the rock art site remains preserved.
- MM-CUL-4** Under the direction of the Principal Investigator, qualified archaeological monitors shall perform full-time monitoring of brush clearing, surface scraping, construction grading, and excavation in native sediments. Native American monitors shall work alongside the archaeologist monitors. One archaeological monitor and one Native American shall be assigned to each disparate grubbing/vegetation removal area. During periods of large area grubbing or cut-fill operations where excavations are spread out and not centrally observable by one team, this may require up to one team per operating area. The monitoring team shall not circulate between disparate operating equipment while they are actively engaged in ground-disturbing activity. In areas undergoing repetitive removals in concentrated areas (such as with repetitive “scraper” passes in a concentrated area during over-excavation removals), the number of teams required shall be established by the Principal Investigator to ensure adequate observation during excavation activities. Should excavation proceed to depths where Pleistocene sediments occur, a qualified paleontologist should monitor those portions of the Project. Monitoring will include inspection of exposed surfaces and microscopic examination of matrix. The monitor will have authority to divert grading away from exposed resources temporarily to recover the specimens. Cooperation and assistance from on-site personnel will greatly assist timely resumption of work in the area of the discovery.
- MM-CUL-5** If the discovery meets the criteria for (1) human bone, (2) an archaeological site or (3) a fossil locality, then work shall be diverted and a localized, temporary ESA will be established with a radius of 100 feet. The Cultural Resources Field Supervisor or Principal Investigator will evaluate the discovery. Notifications of discoveries will be sent within 24 hours to the client, consulting tribes and the City.

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Sites and localities require documentation including location and stratigraphic information. Decisions about testing and data recovery will be made in consultation with the client, consulting Tribes and the City. Digital copies of all documents and records regarding cultural discoveries shall be provided to the Tribes. Work may continue outside a 100-foot perimeter of the discovery.

- MM-CUL-6** If microfossil localities are discovered, the monitor will collect matrix for processing. In order to limit downtime, the monitor may request heavy machinery assistance to move large quantities of matrix out of the path of construction to designated stockpile areas.
- MM-CUL-7** Materials meeting significance criteria under CEQA shall be prepared, identified, and cataloged using tags. No cultural materials will be altered (such as having numbers placed on them) pending decisions on the fate of the collection. The City will consult with the Tribes regarding disposition of the collection. This may include reburial or donation to the accredited repository. The Project proponent is responsible for any initial curation fees.
- MM-CUL-8** The principal investigator shall prepare monthly progress reports to be filed with the client, the City and any tribes who request continuing consultation. The Principal Investigator shall prepare a final digital report to be filed with the client, the City, the Tribes, and the California Historic Resources Information System. The report shall include a list of resources recovered, documentation of each site/locality, interpretation of resources recovered and shall include all specialists' reports as appendices. The Project proponent is responsible for any initial curation fees.

4.5.8 *LEVEL OF SIGNIFICANCE AFTER MITIGATION*

Implementation of the Mitigation Measures previously described would reduce all potential Project development and operational impacts to cultural resources to a less than significant level.

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4.6 Energy

Information for this section was derived from the following: City of Palmdale General Plan, "Palmdale 2045"; Los Angeles County General Plan 2035 (October 6, 2015); Landrum & Brown, "Greenhouse Gas Assessment For: Quail Valley Residential Development – City of Palmdale" (March 16, 2018); Landrum and Brown, Memorandum entitled "Validity of Noise, Greenhouse Gas, and Air Quality Studies for Quail Valley Residential Development" (August 18, 2023); PMC, "City of Palmdale Energy Action Plan" (August 3, 2011); United States Energy Information Administration, California State Profile and Energy Estimates (2023); and the Quail Valley Planned Development Project plans.

4.6.1 ENVIRONMENTAL SETTING

Existing Conditions

In 2021, end-use energy consumption in California was 5,815.6 trillion British thermal units, encompassing the following:

- Coal – 0.5%
- Natural Gas – 25.9%
- Petroleum – 55.9%
- Renewable Energy – 3.2%
- Electricity – 14.5%

End use consumption in California, by sector was as follows in 2021:

- Commercial – 12.7%
- Industrial – 24.3%
- Residential – 15.2%
- Transportation – 47.8%

Furthermore, in 2022, total electricity generation in California was 203,383.85724 megawatt hours.

California ranked 48th among all states and the District of Columbia in total energy consumed, per capita, in 2021 and was 49th among the 50 states in total residential and commercial energy consumed per capita in 2021.

Electricity

Southern California Edison (SCE) provides electricity to the Project vicinity. SCE provides electric power to more than 14 million persons in 15 counties and in 180 incorporated cities within a service area encompassing approximately 50,000 square miles. SCE derives electricity from varied energy resources including the following: fossil fuels; hydroelectric generators; nuclear power plants; geothermal power plants; solar power generation; and, wind farms. SCE also purchases from independent power producers and utilities that include out-of-state suppliers.

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California's electricity industry is an organization of traditional utilities, private generating companies, and State agencies, each with a variety of roles and responsibilities to ensure electrical power is provided to consumers. The California Independent Service Operator (ISO) is a nonprofit public benefit corporation and is the impartial operator of the State's wholesale power grid. The ISO is charged with maintaining grid reliability and directing uninterrupted electrical energy supplies to California homes and communities. Part of the ISO's charge is to plan and coordinate grid enhancements to ensure that electrical power is provided to California consumers. To accomplish this, transmission owners file annual transmission expansion/modification plans to accommodate California's growing electrical needs. The ISO reviews and either approves or denies proposed additions. Also, the ISO works with other areas in the western United States electrical grid to ensure adequate power supplies are available to the State, which in turn ensures continuing reliable and affordable electrical power is assured to existing and new consumers throughout California.

The following **Table 4.6-1 (SCE 2022 Power Content Mix)**, identifies SCE-specific proportional shares of electricity sources in 2022.

Table 4.6-1 – SCE 2022 Power Content Mix	
ENERGY RESOURCES	POWER MIX (PERCENTAGE)
Eligible Renewal (Total)	33.2
Biomass and Biowaste	0.1
Geothermal	5.7
Eligible Hydroelectric	0.5
Solar	7.0
Wind	9.8
Coal	0.0
Large Hydroelectric	3.4
Natural Gas	24.7
Nuclear	8.3
Other	0.1
Unspecified Power (Electricity purchased through open market transactions and not traceable to a specific generation source)	30.3

The California Public Utilities Commission (PUC) regulates natural gas utility service for approximately 10.8 million customers who receive natural gas from Pacific Gas & Electric, Southern California Gas, San Diego Gas & Electric, Southwest Gas, and several smaller natural gas utilities. The vast majority of California's natural gas customers are residential and small commercial customers. Most natural gas used in California originates from out-of-state natural gas basins. The PUC oversees utility purchases and transmission of natural gas to ensure reliable and affordable natural gas deliveries to existing and new consumers throughout California.

4.6.2 **REGULATORY FRAMEWORK**

Federal and State agencies regulate energy use and consumption through various means and programs. The United States Department of Transportation, the United States Department of Energy, and the United States Environmental Protection Agency are three federal agencies with substantial influence over energy policies

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and programs. On the State level, the Public Utilities Commission and the California Energy Commission are two agencies with different aspects of energy. The following are Federal and State energy-related laws and plans relevant to the Project.

Federal Regulations

Intermodal Surface Transportation Efficiency Act of 1991

The Intermodal Surface Transportation Efficiency Act (ISTEA) of 1991 promoted development of intermodal transportation systems to maximize mobility and address national and local interests in air quality and energy. ISTEA contained factors that Metropolitan Planning Organizations (MPO) were to address in developing transportation plans and programs, including some energy-related factors. To meet new ISTEA requirements, MPO adopted explicit policies defining social, economic, energy and environmental values guiding transportation systems. Transportation and access to the Project site is provided primarily by the local and regional roadway systems. The Project would not interfere with, nor otherwise obstruct intermodal transportation plans or projects that may be realized pursuant to the ISTEA because the Southern California Association of Governments is not planning for intermodal facilities on or through the Project site.

Transportation Equity Act for the 21st Century (TEA-21)

The Transportation Equity Act for the 21st Century was signed into law in 1998. The Act builds upon initiatives established in the ISTEA legislation. TEA-21 authorizes highway, highway safety, transit, and other efficient surface transportation programs. TEA-21 continues the program structure established for highways and transit under ISTEA (e.g., flexibility in use of funds; emphasis on measures to improve the environment; focus on a strong planning process as the foundation of good transportation decisions) and also provides for investment in research and its application to maximize performance of the transportation system through such measures as deployment of the Intelligent Transportation System to help improve operations and management of transportation systems and vehicle safety. The Project site is located along major transportation corridors with proximate access to the Interstate freeway system. As discussed throughout this document, the site selected for the Project facilitates access, acts to reduce vehicle miles traveled, takes advantage of existing infrastructure systems, and promotes land use compatibilities through collocation of similar uses. The Project supports the strong planning processes emphasized under TEA-21. The Project is therefore consistent with, and would not otherwise interfere with, nor obstruct implementation of TEA-21.

State Regulations

Integrated Energy Policy Report

Senate Bill 1389 requires the California Energy Commission (CEC) to prepare a biennial integrated energy policy report that assesses major energy trends and issues facing the State's electricity, natural gas, and transportation fuel sectors and provides policy recommendations to conserve resources; protect the environment; ensure reliable, secure, and diverse energy supplies; enhance the State's economy; and protect public health and safety. The Energy Commission prepares these assessments and associated policy recommendations every two years, with updates in alternate years, as part of the Integrated Energy Policy Report. Electricity would be provided to the Project by Southern California Edison (SCE). SCE's Clean Power and Electrification Pathway (CPEP) white paper builds on existing State programs and policies. As such, the Project is consistent with, and does not obstruct implementation of the goals presented in the 2016

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Integrated Energy Policy Report.

State of California Energy Plan

The CEC is responsible for preparing the State Energy Plan, which identifies emerging trends related to energy supply, demand, conservation, public health and safety, and maintenance of a healthy economy. The State Energy Plan calls for the State to assist in transformation of the transportation system to improve air quality, reduce congestion, and increase efficient use of fuel supplies with the least environmental and energy costs. The State Energy Plan identifies strategies to further this plan, including provision of assistance to public agencies and fleet operators and encouragement of urban designs that reduce vehicle miles traveled and accommodate pedestrian and bicycle access. The Project site is located along major transportation corridors with proximate access to the Interstate freeway system. The site selected for the Project facilitates access, takes advantage of existing infrastructure systems including a Park-and-Ride facility within one mile of the Project site, and promotes land use compatibilities through the introduction of residential uses in a residential area. The Project therefore supports urban design and planning processes identified under the State of California Energy Plan, is consistent with, and will not otherwise interfere with, nor obstruct implementation of the State of California Energy Plan.

California Code Title 24, Part 6, Energy Efficiency Standards

This Code was first adopted in 1978 in response to a legislative mandate to reduce California's energy consumption and has been updated periodically. Homes and businesses use nearly 70 percent of California's electricity and are responsible for a quarter of California's greenhouse gas emissions. As California's energy policy agency, the California Energy Commission was mandated by the Warren-Alquist Act to periodically update and adopt building standards to increase energy efficiency of buildings and reduce greenhouse gas emissions. Part 6 of Title 24 implemented this mandate so that every three years the California Energy Commission presents Building Energy Efficiency Standards (Energy Code) updates for new construction and renovations to existing buildings. After the California Energy Commission adopts these standards, they are submitted to the California Building Standards Commission for approval and inclusion with other changes to the Building Code. The Energy Code is designed to be cost-effective so that implementation is affordable while helping California manage energy demand and advance California's climate and clean air goals.

The Energy Code requires solar photovoltaic systems for new homes, establishes requirements for newly constructed healthcare facilities, encourages demand responsive technologies for residential buildings, and updates indoor and outdoor lighting requirement for nonresidential buildings.

The 2022 Code is applicable to the Project. The CEC indicates the 2022 Title 24 updated standards will require single-family residences to include heat pump water or space as standard equipment, to be electric-ready (including electrical circuits for space heating, water heating, cooking/ovens, and clothes dryers, electrical panel for branch circuits and transfer switch for battery storage, and dedicated circuits and panels to easily convert from natural gas to electric in the future. In addition, the 2022 Energy Code extends solar and introduces battery storage standards to various building types.

The Project will design building shells and building components, such as windows, roof systems, electrical and lighting systems, and heating, ventilating, and air conditioning systems to meet 2022 Title 24 Standards.

Local Regulations*City of Palmdale General Plan (Palmdale 2045)*

Palmdale 2045 contains Goals and Policies related to energy use and conservation within the City boundaries. A General Plan Consistency Assessment of Palmdale 2045 Goals and Policies, relevant to the Quail Valley Project Energy Analysis is contained in **Appendix A** of this EIR.

- Goal SCR-2:** **Utilize a Fossil Fuel Free Energy System (SB 100).**
- Goal SCR-3:** **Green and Decarbonized Buildings for New Construction and Major Renovations.**
- Policy SCR-3.1:** **Energy Efficient New Construction.** Integrate CALGreen Tier 1 and Tier 2 green building and energy efficiency standards into new construction and major remodels.
- Policy SCR-3.2:** **All-Electric Reach Code.** Consider adopting a local reach code to encourage new buildings to be all electric.
- Policy SCR-3.3:** **Solar and Storage.** Require installation of photovoltaic panels and battery storage on all residential new construction and nonresidential new construction over 5,000 sq. ft.
- Goal SCR-5:** **Increased Resource Capture and Reduced Waste Sent to Landfills (SB 1383).**
- Policy SCR-7.4:** **Green Infrastructure.** Integrate green infrastructure stormwater management practices into the design of open spaces and public rights-of-way.
- Policy SCR-7.5:** **Cool Pavement.** Incorporate cool pavement practices into street maintenance activities to reduce the urban heat island effect.
- Policy AQ-4-2:** **Energy Conservation.** Encourage energy conservation from all sectors of the community by promoting and/or requiring the use of energy efficient appliances, processes, and equipment, and promoting energy audits and retrofits of existing structures.
- Policy AQ-4-4:** **Solar Energy.** Require new developments to minimize obstruction of direct sunlight for solar energy systems on adjacent properties.

City of Palmdale Energy Action Plan (2011)

The City of Palmdale Energy Action Plan demonstrates Palmdale's commitment to achieve energy efficiency and independence by reducing greenhouse gas emissions consistent with California State legislation. The Plan intends to provide a framework for reducing energy demand and related emissions from City government operations and facilitate reductions in the Palmdale community through the goals, measures and actions identified in the Plan. These stipulations are designed to sustain the economic, environmental and physical health of the Palmdale community and provide the highest quality of life possible. The Palmdale 2045 Consistency Assessment of Palmdale Energy Action Plan Goals and

Measures is contained in **Appendix A** of this EIR. The Energy Action Plan identifies the following as Community-Wide Goals and related Measures.

Goal 1: Reduce energy demand through energy conservation and efficiency.

Measure 1.3: Energy Efficiency in New Development – Encourage new development to exceed Title 24 energy use requirements by 15 percent.

Measure 1.4: Heat Island Effect – Reduce the urban heat island effect to cool the local climate and reduce energy consumption by increased shading on private property, high albedo surfaces in sidewalks and parking lots, and cool surfaces.

Measure 1.5: Public Education – Use City capital improvements and programs to educate the public and promote energy conservation.

Measure 1.6: Residential Energy Efficiency – Promote energy efficiency improvements in the City's housing stock.

Measure 1.7: Residential Energy Audits – Facilitate comprehensive home energy retrofits.

Measure 1.8: Commercial and Industrial Energy Efficiency – Promote energy efficiency in commercial and industrial uses through partnerships and programs.

Measure 1.9: Model Energy Efficiency and Innovation Program – Establish Palmdale as a model for energy-efficient and innovative industrial, manufacturing, and commercial businesses.

Measure 1.10: Regional Energy Efficiency – Continue to participate in regional initiatives to meet energy efficiency targets.

Goal 2: Reduce water consumption for energy conservation.

Measure 2.2: Public Water Conservation Education – Continue to educate the public about water conservation and showcase municipal water conservation projects.

Measure 2.3: Reduce Water Use 20 Percent - Facilitate a 20 percent reduction in water use by 2020 to exceed the 20x2020 initiative.

Measure 2.4: Regional Water Partnerships – Work with regional partners to stabilize water supplies and conservation capabilities.

Goal 3: Promote renewable energy generation and use.

Measure 3.3: Residential Renewable Energy – Encourage the residential sector to meet energy needs through on-site renewable energy sources.

Measure 3.4: Large-Scale Solar Facilities – Facilitate the establishment of large-scale solar facilities to supply regional energy needs.

Goal 4: Reduce transportation emissions through alternative vehicles, trip reduction and consolidation, and efficient flow.

Measure 4.3: Improve Traffic Flow – Reduce emissions from mobile sources through efficient vehicle flow.

Measure 4.4: Complete Streets – Implement a Complete Streets approach to transportation to improve mobility.

Measure 4.5: On-Road Vehicle Emissions Reductions – Reduce emissions from on-road vehicle sources.

Measure 4.7: Public Transit – Support the expansion of transit options within the Antelope Valley.

Measure 4.8: Regional Transit Fleet – Promote upgrades to the regional transit fleet.

Goal 5: Implement smart land use to reduce vehicular trips.

Measure 5.1: Accessible Housing – Promote accessible housing near transit and services.

Measure 5.2: Sustainable Communities Strategy – Pursuant to SB 375, support the development and implementation of a regional Sustainable Communities Strategy with the Southern California Association of Governments through local plans and programs.

Goal 6: Reduce waste.

Measure 6.2: Solid Waste Diversion – Achieve an 80 percent diversion of landfilled waste by 2020.

Measure 6.3: Regional Partnerships – Collaborate with regional partners to achieve local waste diversion targets.

Goal 7: Support the “buy-local” movement.

Measure 7.1: Local First – Support efforts that encourage Palmdale residents and businesses to buy goods and services locally.

4.6.3 THRESHOLDS FOR DETERMINING SIGNIFICANCE

According to Appendix G of the CEQA Guidelines, a project will normally have a significant adverse environmental impact on energy resources if it would:

Threshold EN-1 Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation.

Threshold EN-2 Conflict with or obstruct a state or local plan for renewable energy or energy efficiency.

4.6.4 ENVIRONMENTAL IMPACT

Impact Analysis

Threshold EN-1 Would the Project result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?

Less Than Significant Impact.

Project Development

Project development would require energy use for grading and construction vehicles, construction crew vehicles and light-duty autos.

The Project does not propose uses or operations that would inherently result in excessive and wasteful vehicle trips and Vehicle Miles Traveled (VMT), nor associated excess and wasteful vehicle energy consumption. Furthermore, enhanced fuel economies realized pursuant to Federal and State regulations and transition of automobiles and trucks to alternative energy sources would likely decrease future gasoline fuel demands per VMT. Also, location of the Project proximate to regional and local roadway systems including the proximate Park-and-Ride facility as well as an extensive bicycle path system tends to reduce regional vehicle energy demands.

Construction equipment use of fuel would not be atypical for the type of construction proposed because there are no aspects of the Project construction process that are unusual or energy-intensive and Project construction equipment would conform to applicable CARB emissions standards and thereby act to promote equipment fuel efficiencies.

California Code of Regulations Title 13, Motor Vehicles, Section 2449(d)(3) limits idling times of construction vehicles to no more than five minutes, thereby precluding unnecessary and wasteful consumption of fuel to unproductive idling of construction equipment. Best available control measures inform construction equipment operators of this requirement. Enforcement of idling limitations is realized through periodic site inspections conducted by the City of Palmdale Building and Safety Division or Public Works Department.

Diesel fuel would be supplied by regional commercial vendors. Indirectly, construction energy efficiencies and energy conservation would be achieved through use of bulk purchases, transport and use of construction materials. Fuel efficiencies are improving within on- and off-road vehicle engines due to more stringent government requirements. Therefore, Project energy consumption would not be considered inefficient, wasteful, or otherwise unnecessary and the resultant level of impact would be less than significant.

Project Operation

Energy consumption in support of or related to Project operation would include transportation energy demands (energy consumed by resident, visitor and service vehicles accessing and leaving the Project site)

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and facilities energy (gas and electricity) demands (energy consumed by residential buildings, operations and site maintenance activities). All 730 residences will be constructed with solar panels.

The proposed residential uses on the Project site would likely cause energy demand and use that are comparable to or less than other existing residential projects of similar scale and type. The resultant level of impact is less than significant in that the following would be part of Project development and/or Project operation:

- The Project would implement energy-saving features and operational programs, consistent with reduction measures contained in the City of Palmdale Energy Action Plan;
- The Project would comply with the California Building Standards (CALGreen; CCR, Title 24, Part 11) as implemented by the City of Palmdale;
- The Project would provide for and promote energy efficiencies beyond those required under Federal and State of California standards and regulations and in doing so would meet or exceed all California Building Standards Code Title 24 standards; and,
- The Project would not cause or result in the need for additional energy producing facilities or energy delivery systems. The Project development envelope avoids the existing major transmission lines that transect the property.

Threshold EN-2 Would the Project conflict with or obstruct a state or local plan for renewable energy or energy efficiency?

Less Than Significant Impact.

Project development and operation will comply with the relevant Goals and Measures in the City of Palmdale Energy Action Plan and will not conflict with or obstruct a State or City of Palmdale plan for renewable energy or energy efficiency. The following City of Palmdale Energy Action Plan Goals and Measures will provide guidance for how the proposed Project can conserve energy.

- The Project will meet and attempt to exceed Title 24 energy use requirements, as those requirements might be amended by the State;
- The Project Applicant will install extensive drought landscaping, green space and shade trees to assist in reducing the heat island effect and reducing energy consumption;
- The Project Applicant will encourage residential builders to promote energy efficiency throughout the Project housing stock, including providing solar panels to each residential unit to provide power to new homes;
- The Project will include desert and drought tolerant plant species throughout Project landscaping;
- The Project Applicant will encourage residential builders to educate the buying public about residential-based water conservation; and,
- The Project Applicant/Developers will comply with City of Palmdale solid waste diversion requirements.

Development on the LAFCO-approved non-Quail Valley properties proposed for annexation would require site-specific environmental analysis of potential impacts pertaining to CEQA-identified Energy topics for analysis. The non-Quail Valley areas within the overall annexation boundary include vacant lots, lots with existing housing, and the proposed Falcon Glen project area. Residential development on the Falcon Glen site could result in the construction of 975 single-family dwelling units and 3,510 new residents. The Falcon Glen property area is currently vacant land. Any development on non-Quail Valley properties to be annexed would require various energy sources.

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4.6.5 CUMULATIVE IMPACTS

According to the City of Palmdale, there are 14 projects that are “in the pipeline” within approximately two miles of the approximately 878.1-acre Project site. Total build out of these projects will comprise of the following: 9,477 single-family detached residential units; 2,823 single-family attached residential units; 2,080 multi-family residential units; and 1,161,135 square feet of commercial space. The proposed Project would add 701 single-family detached residential units with an additional 29 single-family detached or multi-family residential units, depending on market demand. Therefore, the proposed Project represents up to 7.2 percent of the total new single-family detached residential units at build out; 5.6 percent of the total cumulative single-family (detached and attached residential units); and 4.8 percent of the total cumulative number of residential units. This indicates a commensurate increase in energy consumption due to Project operation. However, Project development and operation, together with these 14 future projects within the vicinity of the Project site, will be required to comply with State of California and City of Palmdale laws and ordinances pertaining to energy consumption and conservation. Compliance will result in less than significant cumulatively considerable impacts pertaining to energy.

Development on the LAFCO-approved non-Quail Valley properties proposed for annexation would require site-specific environmental analysis of potential cumulative impacts pertaining to CEQA-identified Energy topics for analysis. Residential development on the Falcon Glen site could result in the construction of 975 single-family dwelling units and 3,510 new residents. The Falcon Glen project area is currently vacant land. Any development on non-Quail Valley properties to be annexed would require various energy sources.

4.6.6 LEVEL OF SIGNIFICANCE BEFORE MITIGATION

Project development and operation will result in a less than significant impact to energy resources.

4.6.7 MITIGATION MEASURES

No Mitigation Measures are required. Compliance with City of Palmdale General Plan policies, City of Palmdale Energy Plan Goals and Measures, the CBC, and City of Palmdale Standard Conditions would contribute to ensuring any Project development and operation impacts to Energy would be reduced to a less than significant level, therefore no mitigation measures are necessary. The Project would implement energy-saving features and operational programs, consistent with reduction measures established in the City of Palmdale Energy Action Plan, to be incorporated into all appropriate areas developed pursuant to the Project.

4.6.8 LEVEL OF SIGNIFICANCE AFTER MITIGATION

As previously stated, mitigation measures are not necessary and Project development and operation would result in a less than significant impact to energy resources.

4.7 Geology and Soils

The following narrative is based on information from the following: City of Palmdale General Plan, "Palmdale 2045"; City of Palmdale Municipal Code Chapter 17.100 – Hillside Management (May 4, 2022); County of Los Angeles General Plan; Pacific Soils Engineering, Inc.; "Preliminary Geotechnical Review" Vols. I and II (October 2, 2006); Pacific Soils Engineering, Inc., "Supplemental Geotechnical Investigation" (June 2007); Pacific Soils Engineering, Inc., "Response to Review Comments" (November 2007); Pacific Soils Engineering, Inc., "Response to Review Comments January 2008" (January 2008); GeoDynamics, Inc., "Engineering Geology and Geotechnical Engineering Review, Feasibility Level Conditional Approval Letter" (January 28, 2008); Petra Geosciences, "Updated Geotechnical Report, Tract 65813, Quail Valley Project, Proposed Residential Development, APN 3054-004-016 and APN 3054-03-010, Southwesterly Adjacent to Intersection of West Avenue S and Tovey Avenue, City of Palmdale, California" (June 12, 2017); Petra Geosciences, "Updated Geotechnical Report, Tract 65813, Quail Valley Project, Proposed Residential Development, APN 3054-004-016 and APN 3054-003-010, Southwesterly Adjacent to Intersection of West Avenue S and Tovey Avenue, City of Palmdale, California" (November 10, 2023); and the Quail Valley Planned Development Project plans

The "Updated Geotechnical Report" confirms the previous determination as follows – "The plan changes ...are not considered to be significant from a geotechnical perspective and therefore development of the subject property as displayed on the tentative map is considered feasible. Conclusions and recommendations presented in the referenced reports are considered applicable and should be incorporated into the project design."

4.7.1 ENVIRONMENTAL SETTING

The approximately 878.1-acre vacant Project site is located in the Anaverde Valley, along the southern flank of the greater Antelope Valley adjacent to the southwest boundary of the City of Palmdale. This area is the western-most portion of the Mojave Desert. The Anaverde Valley is bounded by Ritter Ridge to the north and by the Sierra Pelona foothills to the south. Project site elevations range from approximately 1,940 feet to 3,400 feet above mean sea level.

Existing Conditions

Soils

Soils on the Project site typically consist of porous, loose, clayey silt to silty clay with pebbles, cobbles and fragments derived from the underlying parent rock. Thickness ranges from approximately one-half to five feet. Thicker soil accumulations along gentle slopes and draws are common. Recent alluvium is present within all major drainages on the Project site, is poorly sorted, is comprised of an admixture of cobbles, gravel, sand and silt, and ranges in thickness from several feet in the upper canyons to as much as 30 feet. Terrace deposits on the Project site are poorly sorted and moderately consolidated, comprised of an admixture of cobbles, gravel, sand and silt, and were found to be as deep as 12 feet. Alluvium underlies the recent alluvium and terrace deposits, is a consolidated admixture of cobbles, gravel, sand and silt, and range from a few feet in thickness to approximately 78 feet. Older alluvium underlies the recent alluvium, is a consolidate admixture of cobbles, gravel, sand, and silt, and is approximately 20 to 50 feet below the existing ground surface. The Pelona Schist extends across the central portion of the Project site, and where exposed at the surface is typically highly weathered, jointed, and fractured. The southern portion of the

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Project site is underlain by a Gneissoid basement rock; the Pelona Schist underlies the northern portion of the Project site. These bedrock units are mantled, in part, by surficial materials comprised of older alluvium, terrace deposits, recent alluvium and soil.

Groundwater

The geologic investigation of the Project site did not encounter any groundwater within site drainages to depths of approximately 90 feet and did not encounter surface water in the form of streams and/or seeps.

Seismic Hazards

All of California is in a seismically active region. The City of Palmdale is located within a seismically active area referred to as the Mojave Desert Geomorphic Province of California and at the western edge of a moving plate in the earth's crust.

The Project site is situated in the north-central portion of the Transverse Ranges Geomorphic Province comprised of a complex series of east-west trending mountains and valleys associated with the westerly bend in the generally northwesterly trending San Andreas Fault System. The Project site encompasses a portion of the Sierra Pelonas, which are situated in the northern part of the San Gabriel Mountains between the San Andreas and the San Gabriel Fault zones. The San Andreas Fault zone is a dominant feature of California geology and is responsible for many of the landforms within California. The San Andreas Fault zone is a right-lateral, strike slip fault that extends more than 800 miles from the Gulf of California to Cape Mendocino. This Fault zone is considered active, per the California Earthquake Fault Zoning Act (Alquist-Priolo Act). The Geotechnical Review performed for the Project site indicates that the Project site is not located within an Alquist-Priolo Earthquake (Special Studies) Fault Zone. Although the San Andreas Fault traverses approximately 1.2 miles northeast of the Project site, the strand/splay of the San Andreas Fault zone closest to the Project site is the Nadeau Fault, which is located approximately one-tenth mile to the north. The inactive Vincent Thrust transects the central portion of the Project site from east to west.

Forty-seven faults or fault segments have been identified within a 60-mile radius of the Project site. The Project site is located in Seismic Zone 4 (per the 1997 Uniform Building Code), which theoretically could experience an earthquake producing ground accelerations in bedrock exceeding 5.0 Richter Scale due to its close proximity to the San Andreas Fault (SAF) Zone. However, the Geotechnical Review of the Project site indicates "...no known active faults traverse the subject site." Primary earthquake hazards include surface rupture and ground motion. Secondary hazards resulting from major earthquakes include liquefaction, seismically induced flooding, and seismically induced landsliding.

4.7.2 REGULATORY FRAMEWORK

State Regulations

Alquist-Priolo Earthquake Fault Zoning Act

The Alquist-Priolo Earthquake Fault Zoning Act provides for the delineation of rupture zones along active faults in California. The Act's purpose is to regulate development on or near fault traces to reduce the hazard of fault rupture and to prohibit location of most structures for human occupancy across these traces. The general development setback from a known fault is 50 feet. Cities and counties are required to regulate certain development projects within fault zones, which includes withholding permits until geologic

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Environmental Impacts – Geology and Soils

investigations demonstrate that the proposed developments would not be threatened by future surface displacement.

Seismic Hazards Mapping Act

In April 1991, the State of California enacted the Seismic Hazards Mapping Act (Public Resources Code, Division 2, Chapters 7-8), to protect the public from effects of strong ground shaking, liquefaction, landslides, or other ground failure, and from other hazards caused by earthquakes. This Act requires the California State Geologist to delineate various seismic hazard zones and requires cities, counties, and other local permitting agencies to regulate certain development projects within these zones. A geotechnical investigation and appropriate mitigation measures must be incorporated into the project design for any project site within a seismic hazard zone prior to issuance of a development permit for such project. The Mapping Act defines “mitigation” as “...those measures that are consistent with established practice and reduce seismic risk to acceptable levels.” “Acceptable level” or risk is defined as “that level that provides reasonable protection of the public safety, though it does not necessarily ensure continued structural integrity and functionality of the project” (California Code of Regulations, Section 3721(a)).

California Building Code (California Building Standards Code)

Under Title 24 of the California Government Code, the California Building Standards Commission is responsible for all building standards. The California Building Code incorporates by reference the Uniform Building Code with necessary California amendments, including amendments that address seismic performance standards for structures.

California Public Resources Code Related to Paleontological Resources

Section 5097.5 of the California Public Resources Code prohibits “knowing and willful” excavation removal, destruction, injury, and defacement of any paleontological feature on public lands except where the agency with jurisdiction has granted express permission.

Section 30244 requires reasonable mitigation for impacts on paleontological resources that occur as a result of development on public lands.

Local Regulations

Los Angeles Building Code

The Los Angeles Building Code adopts sections of the California Building Code. The Los Angeles Building Code is the presiding building code for purposes of regulating the erection, construction, enlargement, alteration, repair, moving, removal, demolition, conversion, occupancy, use, height, and maintenance of all structures and certain equipment therein.

City of Palmdale General Plan (Palmdale 2045)

A General Plan Consistency Assessment of current General Plan Goals and Policies, as well as Palmdale 2045 Goals and Policies relevant to the Project Geology and Soils analysis is contained in **Appendix A** of this EIR.

Land Use and Community Design Element

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Environmental Impacts – Geology and Soils

Policy LUD-5.7: **Natural Topography.** To the greatest extent feasible, preserve natural topographic features during the planning and development process. Utilize physical advantages of the site to minimize visual impacts.

Policy LUD-21.3: **Respecting Natural Ridges.** Avoid grading or siting of dwelling units on the north facing side of Ritter Ridge or other major ridgelines.

Safety Element

Goal SE-1: **A City with Minimal Public Health, Safety and Welfare Impacts Resulting from Seismic Hazards.**

Policy SE-1.1: **Geologic Review.** Review development within or adjacent to geologic hazard zones and provide copies of geotechnical reports and studies to be reviewed by a qualified geologist and implement recommendations to ensure adequate provisions for public safety.

Policy SE-1.5: **Local Hazard Mitigation Plan.** Implement the policies and mitigation strategies outlined within the Palmdale Local Hazard Mitigation Plan.

Air Quality Element

Policy AQ-2.3: **Natural Contours.** Encourage developers to maintain natural contours to the greatest degree possible, to eliminate the need for extensive land clearing, blasting, ground excavation, grading and cut and fill operations.

City of Palmdale Hillside Management Ordinance

The City of Palmdale Hillside Management Ordinance (Chapter 17, Article 100 of the City of Palmdale Zoning Ordinance) establishes regulations intended to preserve significant ridgelines and landforms that provide much of the backdrop to the City's skyline. The Ordinance contains provisions that allow for orderly and sensitive development in hillside areas in conjunction with preservation of natural open space on steeper terrain and establishes specific submittal requirements, review standards, and processing procedures for projects within hillside areas. The following specific goals reflect those contained in the City General Plan and are addressed in the Appendix A Consistency Analysis:

- A. To allow for development patterns in hillside areas that minimize erosion and geologic hazards and that provide for the protection of the public health, safety, and welfare.
- B. To provide for density of development that respects and is reflective of the natural terrain.
- C. To encourage grading techniques that blend with the natural terrain, minimize earth moving activity, minimize visual impacts of large cut and fill slopes and provide for the preservation of unique and significant natural landforms.
- D. To promote development in hillside areas be concentrated in areas with the least environmental impact and be designed to fit existing landforms and features.

- E. To encourage retention of natural drainage patterns and the preservation of significant riparian areas, both of which are commonly located in hillside areas.
- F. To reduce water use in slope replanting and retention by encouraging grading design that minimizes manufactured slopes.
- G. To allow density transfers where appropriate to facilitate development in more developable locations while retaining significant natural slopes and areas of environmental sensitivity.
- H. To substantially retain the integrity and natural grade elevations of the significant natural ridgelines and prominent landforms that, in aggregate, form the City's skyline backdrop. Natural landforms and features forming this backdrop include Ritter Ridge, Portal Ridge, Verde Ridge, the Ana Verde Hills, the Sierra Pelona mountains, and secondary ridges associated with the San Andreas Rift Zone and the lower foothills of the San Gabriel mountains.
- I. To encourage the design of development of hillside areas provide safety with respect to fire hazards, geological and geotechnical hazards, drainage, erosion, and materials of construction; to provide the best use of natural terrain; and to prohibit development that will create or increase fire, flood, or other safety hazards to public welfare, and safety

4.7.3 ***THRESHOLDS FOR DETERMINING SIGNIFICANCE***

According to Appendix G of the CEQA Guidelines, a project will normally have a significant adverse environmental impact on geology and soils if it would:

- | | |
|------------------------|--|
| Threshold GEO-1 | Directly or indirectly expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving: <ul style="list-style-type: none"> 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; ii) Strong seismic ground shaking; iii) Seismic-related ground failure, including liquefaction; or iv) Landslides. |
| Threshold GEO-2 | Result in substantial soil erosion or the loss of topsoil. |
| Threshold GEO-3 | 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. |
| Threshold GEO-4 | 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. |
| Threshold GEO-5 | 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.

Threshold GEO-6 Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature.

4.7.4 ENVIRONMENTAL IMPACT

Impact Analysis

Threshold GEO-1 Would the Project directly or indirectly expose people or structures to 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;
- ii) Strong seismic ground shaking;
- iii) Seismic-related ground failure, including liquefaction; or
- iv) Landslides?

Less Than Significant Impact with Mitigation Incorporated.

Ground shaking from earthquakes is typically the primary cause of personal injury and structural damage in Southern California. Severity of an earthquake can be expressed in terms of intensity and magnitude, although these terms are very different. Intensity is based on observed effects of ground shaking on people, buildings, and natural features. Intensity varies according to place within a disrupted region and depends on the location of an observer with respect to the epicenter of the earthquake. Intensity of ground shaking at a specific location is a function of distance from the fault, magnitude of the earthquake, and local geology. The intensity scale currently in use in the United States to evaluate effects of earthquakes is the Modified Mercalli Intensity Scale. This Scale is comprised of 12 increasing levels of intensity, designated by Roman numerals, that range from imperceptible shaking to catastrophic destruction. The Modified Mercalli Intensity Scale is not based on mathematics; rather, it is an arbitrary ranking based on observed effects. The lower numbers of the Intensity Scale are generally related to the manner in which people feel an earthquake; the higher numbers are based on observed structural damage. Magnitude is related to the amount of seismic energy released at the hypocenter of an earthquake and is based on the amplitude of earthquake waves recorded on instruments that have a common calibration. The magnitude of earth movement associated with seismic activity is typically quantified using the Richter scale, which is a measure of the strength of an earthquake or strain energy released by an earthquake, as determined by seismographic observations. An increase of one unit of magnitude represents a 10-fold increase in wave amplitude on a seismogram or approximately a 30-fold increase in the energy released. As an example, a magnitude 6.7 earthquake releases more than 900 times the energy of a 4.7 earthquake.

The 2007 Uniform Building Code indicates the entire City of Palmdale is located within Seismic Risk Zone 4, which means this area is expected to experience maximum magnitudes and damage in the event of an earthquake. Historically, earthquakes that occurred in the past 100 years resulted in extensive damage throughout Southern California.

Alquist-Priolo Earthquake Fault Zone

The Geotechnical Review performed for the Project site indicates that the Project site is not located within an Alquist-Priolo Earthquake (Special Studies) Fault Zone, as identified by the California State Division of Mines and Geology. In addition, no active faults have been mapped on the Project site. However, the Project site, like all of southern California, is in a seismically active region. The San Andreas Fault traverses approximately 1.2 miles northeast of the Project site. The San Andreas Fault is considered the most significant earthquake threat in California. It is a strike-slip-type fault that has a maximum credible earthquake magnitude of 8.0 on the Richter Scale. This Fault has been the source of significant earthquakes in the past, including an 8+ magnitude earthquake at Fort Tejon in 1857 and an 8+ magnitude earthquake in San Francisco in 1906.

In addition, as stated previously, 47 faults or fault segments have been identified within a 60-mile radius of the Project site. Although no special hazard zones delineated by the 1972 Alquist-Priolo Special Studies Zone Act are located on the Project site, the Vincent Thrust transects the central portion of the Project site with an approximate east-west trend. However, the Vincent Thrust has remained inactive since the late Cretaceous/early-Tertiary period.

Other faults that extend out of the San Andreas Fault at awkward angles in the Palmdale area that could experience movement include the following:

- *Garlock Fault* – The Garlock Fault is 28.8 miles northwest of the Project site and branches off the San Andreas Fault north of Lancaster. This Fault defines the Antelope Valley's northern boundary and extends 200 miles northeast from Castaic Lake through the Tehachapi Mountains.
- *White Wolf Fault* – The White Wolf Fault Zone is located approximately 50 miles northwest of the Antelope Valley area. This fault zone originates west of the Interstate 5 and Interstate 99 junction and continues for approximately 50 miles.
- *Sierra Madre (San Fernando) Fault* – The Sierra Madre Fault Zone is comprised of a series of north-tipping, reverse faults located approximately 35 miles south of Lancaster. This Fault Zone is approximately 40 miles southwest of the Project site.
- *Sierra Nevada (Owens Valley) Fault* – The Sierra Nevada Fault Zone extends 200 miles northeast from Castaic Lake through the Tehachapi Mountains and is a northeast-trending fault system. The nearest point to the Palmdale area is approximately 30 miles northwest of Quartz Hill.
- *Cemetery Fault, Nadeau Fault, Littlerock Fault, and Punchbowl Fault* – These four subsidiary faults surround the Antelope Valley. All the faults are active branches of the San Andreas Fault. Movement on the San Andreas Fault may activate one or all of these faults.

There are three common forms of geologic hazards related to earthquakes that could potentially affect the Project site: ground rupture, ground shaking and ground failure. The Geotechnical Review conducted for the Project site indicates the Planned Development Plan prepared for the Project "...has been developed to minimize hazards associated with hillside development" as discussed below.

Although not located in an Alquist-Priolo Earthquake Fault Zone and no active faults have been mapped directly on the Project site, the site is in a seismically active part of California. Therefore, a FRISKSP probabilistic free-field peak ground acceleration assessment was conducted for the Project site. A common

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acceptable level of risk is the statistical chance that a certain acceleration will have a 10 percent probability of being exceeded in a 50-year period. The FRISKSP assessment found the average peak ground acceleration to be 0.85 g. Thereby, moderate to strong ground motions from future regional earthquakes could occur during the life of the Project.

Fault Rupture

Seismically induced ground rupture is defined as physical displacement of surface deposits in response to an earthquake's seismic waves. Magnitude, sense and nature of fault rupture can vary for different faults or along different segments of the same fault. Ground rupture is more likely along active faults. No special hazard zones delineated by the 1972 Alquist-Priolo Special Studies Zone Act are located within the Project site. As previously mentioned, the Vincent Thrust transects the central portion of the Project site with an approximate east-west trend, but has remained inactive since the late Cretaceous/early-Tertiary period.

Project development does not have the potential to expose people to adverse effects associated with rupture of a known earthquake fault. Although it is likely that faults within the vicinity of the Project site will move in the future, it is unlikely that ground rupture will occur on the Project site. The Project site is not located within an Alquist-Priolo Earthquake Fault Zone or within 500 feet of a known active fault trace. Thereby, the Geotechnical Review conducted for the Project/Project site indicates its "...analysis has concluded that impacts associated with fault ruptures would be less than significant."

Ground Failure

Ground failure describes some secondary effects of any earthquake. Ground failure manifestations include liquefaction, landslide, and settlement of unconsolidated soil, ground lurching, and shallow ground failure.

Liquefaction

Seismic agitation of loose, saturated sands and silty sands can result in a build-up of pore water pressures which, if the pressures are sufficient to overcome overburden stresses, a temporary quick condition known as "liquefaction" can result. Liquefaction can cause settlement of the ground surface, settlement and tilting of engineered structures, flotation of buoyant buried structures and fissuring of the ground surface. A common manifestation of liquefaction is the formation of sand boils, which are short-lived fountains of soil and water that emerge from fissures or vents and leave freshly deposited, conical mounds of sand or silt on the ground surface.

California State Mining and Geology Seismic Hazard Zone Map

In 2005, the California State Mining and Geology released official seismic hazard zone maps for the Lancaster West USGS quadrangle, within which the Project site is located. Soils within Amargosa Creek are subject to liquefaction during a major earthquake event; no other seismic hazards on the Project site are illustrated on the seismic hazard zone maps.

California Geological Survey Seismic Hazard Map

The California Geological Survey (Seismic Hazard Map, Ritter Ridge Quadrangle, 2003) has indicated a portion of the Project site is located in a zone of required investigation for liquefaction potential. This area includes the main south-to-north drainage. The State Seismic Hazards Zone Report 083 indicates that

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historically, the shallowest groundwater in this area ranges from 0 to 30 feet. The Geotechnical Review performed for the Project site did not encounter groundwater within the alluvium to depths in excess of 90 feet, but used a water level of 30 feet below existing grade in its evaluation of liquefaction potential of alluvial materials proposed to be left in place. Pacific Soils, Inc. performed a Probabilistic Seismic Hazard Analysis (PSHA) for use in evaluation of liquefaction hazard potential. The Geologic Review performed for the Project calculated that the (estimated) value for seismically induced settlement "...ranged from 1 to 3 inches under the assumed design earthquake..."

After a review of existing geotechnical and geologic data relative to the Project site and surrounding area, excavation of 28 exploratory bucket auger borings and 44 exploratory backhoe pits, advancement of 6 Cone Penetration Test soundings, laboratory testing of selected material samples collected from the borings, and a Seismic Refraction Survey, Pacific Soils Engineering, Inc. concluded "...the site is considered to be susceptible to liquefaction and seismic settlement because of grain size, grain type, and soil plasticity." Petra Geotechnical, Inc. (April 12, 2011) indicated its review of Pacific Soils Engineering, Inc.'s prior geotechnical reports enabled it to state "...we generally concur with the findings, conclusions, and recommendations of the previous work. The City of Palmdale Department of Public Works conditionally approved Pacific Soils Engineering, Inc.'s reports in a letter dated January 28, 2008, available at the City.

Project development and operational impacts related to liquefaction would be less than significant. According to the Geotechnical Review conducted for the Project, the potential for liquefaction on the majority of the Project site is minimal due to the granular nature of on-site materials and absence of a high-water table. There is a potential for liquefaction in areas that are covered by younger alluvium. However, minimal liquefaction impacts are anticipated because the Quail Valley Development Plan designates open space uses for much of the alluvium areas. A liquefaction study should be completed for any fill slope/structures planned since fill slopes are programmed to toe out in these areas. A portion of the Project site (the area that roughly includes the main south to north drainage) is in a zone of required supplemental investigation during grading operations for liquefaction potential. In addition, implementation of **Mitigation Measure MM-GEO-7** regarding the construction of fill slopes would reduce any related impacts to a less than significant level.

Landslides

A portion of the Project site is located within a hillside region, within which is a potential for landslides. However, minimal impacts within these areas are anticipated because open space uses are planned for these areas. As previously mentioned, a liquefaction study should be completed for any fill slope/structures planned in these areas since fill slopes are programmed to toe out. Static and pseudo-static analyses indicated generally accepted requirements for both conditions were met with Project design. The remaining portion of the Project site and its vicinity are flat and not subject to landslides. Therefore, no impact would result in these areas of the Project site. Project development and operation level of impact related to exposure of people and structures to seismically induced landslides on the Project site would be less than significant.

The Geotechnical Review includes recommendations for grading and composition of cut and fill slopes on the Project site. These recommendations address potential significant Project impacts related to grading and are incorporated into this EIR below as Mitigation Measures. The Geotechnical Review conducted for the Project site states that "compliance with the mitigation measures will reduce potentially significant impacts with respect to grading or the stability of cut and fill slopes." The Geotechnical Review concludes that "the subject property is considered feasible, from a geotechnical standpoint, for the proposed development, provided that the conclusions and recommendations presented herein are incorporated into

the design and construction of the project.” As such, **Mitigation Measures MM-GEO-1** through **MM-GEO-23** below incorporate the Geological Review recommendations as required.

Threshold GEO-2 Would the Project result in substantial soil erosion or the loss of topsoil?

Less Than Significant Impact with Mitigation Incorporated.

Project grading has been designed in a manner consistent with the City of Palmdale Hillside Management Goals and Policies of Chapter 17 Article 100 of the City of Palmdale Zoning Ordinance. Cut and fill grading techniques to be used during Project development are designed with slope ratios of two-horizontal to one-vertical (2:1) or flatter. The highest proposed 2:1 cut slope is approximately 110 feet, and the highest 2:1 fill slope is approximately 60 feet. Heights of manufactured slopes have been made minimal to protect the southern viewshed of the City. Maximum design cuts and fills are both approximately 70 feet.

Project development will occur according to City of Palmdale Hillside Management Ordinance Goals and Policies. Residential and supporting development will be clustered in the lower elevations on the Project site. Such clustering will minimize erosion potential. Furthermore, the grading plan for the Project respects and reflects the natural terrain of the Project site, which further minimizes visual impacts and provides for preservation of the Project site’s significant natural landforms. Steeper and more prominent hillsides within Area B and steeper slope areas within Area A will be permanently retained as undeveloped. Implementation of **Mitigation Measures MM-GEO-15, MM-GEO-16 and MM-GEO-17** are focused on reducing any potential Project impacts related to soil erosion to a less than significant level.

Threshold GEO-3 Would the Project 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?

Less Than Significant Impact with Mitigation Incorporated.

As previously stated, the Geotechnical Review conducted for the Project/Project site indicates that the Project site is not located within an Alquist-Priolo Earthquake (Special Studies) Fault Zone, as identified by the California State Division of Mines and Geology. In addition, no active faults have been mapped on the Project site. However, the Project site, like all of southern California, is in a seismically active region. The San Andreas fault traverses approximately 1.2 miles northeast of the Project site. In addition, as stated above, 47 faults or fault segments have been identified within a 100-kilometer radius of the Project site.

Seismically Induced Landsliding

A portion of the Project site is located within a hillside region. Natural slopes adjacent to the Project site have potential slope instability due to existing landslides or adverse geologic structure. Proposed grading near or at the base or toe of natural slopes would expose these planes of weakness and create an adverse slope stability condition. During geologic testing, the stability of the native and manufactured slopes was evaluated and specific slopes were analyzed where possible instability was suggested by geologic structure or material strength parameters. Geotechnical cross sections were prepared for analysis of existing natural and proposed graded cut and fill slopes. Pacific Soils Engineering, Inc. performed stability analyses of selected proposed cut, proposed fill, and natural slopes within and adjacent to proposed limits of grading. State Code requirements provided the basis for pseudo-static slope stability analyses. The results of these analyses as contained in the Geological Review performed for the Project, “... meet or exceed generally accepted minimum requirements for both static and pseudo-static conditions.” The Geotechnical Review

prepared for the Project site concludes, “the analysis indicates that proposed graded cut and fill slopes and remediated slopes (where necessary) have adequate stability for the proposed development.”

Subsidence

In general, on-site bedrock is mantled by a thin soil layer and the upper two to three feet is moderately- to highly-weathered. The soil and weathered portions of bedrock will require removal in fill and shallow cut areas to depths that will be a function of material type, topographic surface expression and the interpreted geometry of underlying bedrock contact. Depths of removal of younger alluvial deposits may be up to 15 feet. In that it is anticipated that any remaining static settlement potential whether as the result of hydro-collapse or long-term settlement would be relatively uniform, the potential for static differential settlement would be minimal. Therefore, the level of impact to Project structural foundations due to subsidence of soils is less than significant.

Differential Fill and Settlement

The majority of building and pavement/hardscape areas will be located over areas of fill. Maximum fill thickness in proposed building pad areas will be approximately 24 feet located in the western corner of the development area. Building pads will have variable fill depth or will have a material transition underlying the building area. Physical and engineering characteristics of various bedrock and surficial deposits will be variable within short distances on the Project site. Some of the proposed buildings have large floor areas and thereby could be subject to long-term settlement due to variable fill thickness or supporting soil conditions. This will require appropriate mitigation to reduce the impact of construction over the materials.

The Geotechnical Review includes recommendations for grading and composition of cut and fill slopes on the Project site. Implementation of **Mitigation Measures MM-GEO-3** through **MM-GEO-12**, **MM-GEO-21**, **MM-GEO-22** and **MM-GEO-23** are focused on reducing any potential Project impacts related to landslides, lateral spreading, soil subsidence, liquefaction and collapse to a less than significant level.

Threshold GEO-4 Would the Project 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.?

Less Than Significant Impact with Mitigation Incorporated.

Expansion Potential

The sandy silt/clayey sand and silty sand overlying soils on the Project site may have minor expansive characteristics. The Geotechnical Review conducted for the Project/Project site indicated that “based on laboratory test results of selected samples, most on-site soils and bedrock materials, when tested in accordance with U.B.C. Standard 18-2, typically possess expansion potential in the ‘very low’ range. However, some alluvial and terrace deposits may possess ‘medium to high’ expansion potential.” Although some alluvial and terrace deposits may possess medium to high expansion potential, these deposits will be mixed with underlying granular soils during Project development (grading). Thereby, the potential level of impact on structures from shrinking and swelling of expansive soils is less than significant.

Implementation of **Mitigation Measures MM-GEO-18**, **MM-GEO-19**, and **MM-GEO-20** would reduce any potential Project impacts related to expansive soils to a less than significant level.

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Threshold GEO-5 Would the Project 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?

Less Than Significant Impact.

The majority of the Project site will be served by sewer connection to the Anaverde trunk system. However, the 51 one-acre rural equestrian lots located in the northeast corner of the Project site (Planning Area 2) are lower in elevation than the gravity sewer line. Additionally, the three 5-acre rural lots are not proximate to gravity sewer service. Therefore, these lots will be served by individual septic systems. The proposed septic service is consistent with such service provided to the existing adjacent residential development. These existing adjacent areas consist of similar soils that are capable of adequately supporting the use of septic tanks. Therefore, the impact of the soils' capability to adequately support the use of septic tanks for the rural equestrian lots would be less than significant.

Threshold GEO-6 Would the Project directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

Less Than Significant Impact with Mitigation Incorporated.

Cogstone conducted a search for paleontological records at the Natural History Museum of Los Angeles County and in published materials. The Project site and a one-mile radius were searched for paleontological resources. It was determined there are no recorded paleontological localities within the Project site or the one-mile radius. The nearest known paleontological vertebrate sites are several miles east from the Project site along Avenue S near Little Rock. These Quaternary Alluvium and older deposits yielded fauna of various species. In the southern portion of the Project site, the bedrock primarily consists of metamorphic schist and gneiss as well as igneous granitic and diorite rocks that lack fossils. Quaternary Alluvium in the northern area of the Project site and the low-lying central area of the Project site usually do not contain significant vertebrate fossils in the uppermost layers. However, the potential exists for deeper materials in these two areas. That is, the potential for paleontological resources is low until grading exceeds 10 feet below the current ground surface. Given this possibility, the potential impact of Project development (grading) could be significant, but will be reduced to a less than significant level with implementation of **Mitigation Measure MM-CUL-1 and MM CUL-2.**

Development on the LAFCO-approved non-Quail Valley properties proposed for annexation would require site-specific environmental analysis of potential impacts pertaining to CEQA-identified Geology and Soils topics for analysis. The non-Quail Valley areas within the overall annexation boundary include vacant lots, lots with existing housing, and the proposed Falcon Glen project area. The Falcon Glen property area is currently vacant land.

4.7.5 CUMULATIVE IMPACTS

The Project development and operational impacts related to Geology and Soils are site specific in nature. As cumulative projects have been and continue to be constructed in accordance with City of Palmdale General Plan and Municipal Code requirements, additional residents and structures will be exposed to seismic hazards due to earthquakes. Other geotechnical constraints, such as landslides, expansive soils, and liquefaction may present hazards to cumulative development. However, the Quail Valley Project and each other future development project is subject to, as a minimum, City-approved recommendations in site-specific geotechnical reports, uniform site development and construction standards relative to seismic and

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other geologic conditions prevalent within the Project vicinity. Each development project would need to meet requirements of the approving agency and Uniform Building Code requirements as those requirements pertain to the protection against known geologic hazards. Thereby, impacts due to cumulative development would be less than significant.

Development on the LAFCO-approved non-Quail Valley properties proposed for annexation would require site-specific environmental analysis of potential cumulative impacts pertaining to CEQA-identified Geology and Soils topics for analysis.

4.7.6 *LEVEL OF SIGNIFICANCE BEFORE MITIGATION*

Project development impacts related to Geology and Soils prior to implementation of recommended Mitigation Measures would be Potentially Significant without Mitigation in that Project development and operation will expose Project residents, visitors, employees and structures to strong ground shaking resulting from earthquake events and there may be a potential for uncovering paleontological resources during Project development.

4.7.7 *MITIGATION MEASURES*

The Geotechnical Review conducted by Pacific Soils Engineers, Inc. includes a number of recommendations pertaining to grading and composition of cut/fill slopes and other potential impacts related to Geology and Soils within the Project. The recommendations have been incorporated into this EIR as Mitigation Measures to reduce potentially significant grading impacts to a less than significant level. In addition to the specific Mitigation Measures, standard grading design and construction measures identified in the Geotechnical Review conducted for the Project/Project site and the City of Palmdale Grading and Engineering ordinances shall be implemented.

General

MM-GEO-1 Prior to issuance of grading permits for each map filed for the Project, the Project developer(s) shall prepare a Storm Water Pollution Prevention Plan that shall include Best Management Practices to control site erosion and downstream sediment discharge during Project development (grading and construction).

MM-GEO-2 Prior to issuance of building permits, structural engineering plans and reports shall be prepared by a qualified civil engineer and shall be approved by the City of Palmdale. The structural engineering design shall specify appropriate structural design criteria and effective construction standards for the Project that would be in conformance with Uniform Building Code, as amended, for seismic performance standards.

Slope Stability

MM-GEO-3 All grading shall be performed under testing and observation of a licensed engineering geologist and a geotechnical engineer in accordance with applicable provisions of the City of Palmdale Grading Ordinance and requirements of the City

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Engineer and the City Superintendent of Building and Safety.

- MM-GEO-4** The Project engineering geologist and the Project geotechnical engineer shall review and approve the detailed 40-scale engineering grading plans prior to submittal for approval and issuance of grading permits. The consultant's acceptance shall be by signature on the plans, clearly indicating that they have reviewed the plans prepared by the design engineer, and that the plans include recommendations contained in their reports.
- MM-GEO-5** All aspects of grading, including site preparation, grading and fill placement, shall be per the California Building Code.
- MM-GEO-6** Cut slopes shall be constructed at a maximum gradient of 2:1. All cut slopes or back cuts for retaining walls must be observed by the Project geotechnical consultant to verify absence of adverse geologic conditions. Where topsoil is present at the top of a cut slope, the top of the slope shall be "laid back" or rounded.
- MM-GEO-7** Fill slopes may be constructed at a maximum gradient of 2:1. Unless modified by the Project geotechnical engineer based on identified specific field conditions during grading. Fill slopes shall be keyed and benched into firm in-place soil or bedrock. Fill slope keyways shall be a minimum of 15 feet wide and cut to a minimum depth of two feet at the toe into competent in-place materials. The keyway shall be tilted into the slope and shall be at least three feet deep at the heel (measured from below the slope toe elevation). The keyway shall be observed by the Project geotechnical consultant prior to placing any fill.
- MM-GEO-8** All slopes shall require maintenance to reduce the risk of erosion and degradation with time due to natural or man-made conditions. Future performance of slopes will depend on the control of burrowing animals and maintenance of brow ditches, drainage structures, and slope vegetation.
- MM-GEO-9** All graded or exposed natural slopes shall be maintained with dense, deep rooting (minimum two feet deep), drought resistant ground cover and shrubs or trees. A reliable irrigation system shall be installed on the slopes where necessary, adjusted so over watering does not occur, and periodically checked for leakage. Care shall be taken to maintain a uniform, near optimum moisture content in the slopes, and to avoid over drying, or excess irrigation. Excess watering of slopes shall be avoided to reduce the risk of erosion and surficial failures. Slopes shall not be watered before forecasted rain.
- MM-GEO-10** All drainage structures shall be kept in good condition and clean the entire length to the outlet. Final grading of the site shall provide positive drainage away from slopes, and water shall not be allowed to pond or gather in a slope area. Burrowing animals, particularly ground squirrels, can destroy slopes; therefore, where present, immediate measures shall be taken to evict them with an ongoing program to maintain slope stability.

Differential Fill and Settlement/Landslides

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MM-GEO-11 On-site materials obtained from excavations may be used as fill soils. Fill soils shall be free of all deleterious materials including trash, debris, organic matter, and rocks larger than six inches. Fill soils shall be placed in thin uniform lifts not exceeding 10 inches of uncompacted thickness, brought to two percent over the optimum moisture content, and compacted to a minimum of 90 percent relative compaction. If needed, sources of import fill shall be approved by the Project geotechnical consultant prior to transport of materials to the site.

MM-GEO-12 Remedial grading in the form of removals and re-compaction is recommended to prepare all building pad areas and those locations where cut slopes are required near potential landslide designated areas. Within areas of settlement sensitive structures and five feet beyond, removal operations must remove any highly compressible upper native soils. Where fill thickness varies significantly or a transition condition exists under a structure, additional removals as recommended in the geotechnical investigation shall be performed to reduce the potential for differential movement.

Seismic Hazards – Expansive Soils

MM-GEO-13 Expansion tests shall be performed at the finish grade materials at the conclusion of grading for each building pad area.

MM-GEO-14 Information regarding the care and maintenance of improvements located on expansive soils shall be passed on to future owners of the property.

Erosion

MM-GEO-15 Grading shall be scheduled for completion prior to the start of the rainy season, generally defined to begin in November, or detailed temporary erosion control plans shall be filed in a manner satisfactory to the City of Palmdale Department of Public Works.

MM-GEO-16 Any dirt or other material deposited on the roadways from construction operations shall be removed by the developer on a timely and regular basis.

MM-GEO-17 Site grading areas shall be watered during grading and before landscaping on a regular basis to reduce fugitive dust generation.

Loosely Consolidated Soils

MM-GEO-18 Cut lots which expose highly sheared material, shall be over excavated and replaced with compacted fill to mitigate any potential settlement impacts associated with expansive or loose unconsolidated soils.

Settlement

MM-GEO-19 Backfill in the exploratory trenches on site shall be removed and recompacted in areas of shallow cuts or areas to receive fill to mitigate any potential settlement impacts.

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MM-GEO-20 The cut portion of building pads crossed by cut/fill daylight lines shall be over excavated to a minimum depth of three feet and replaced with a compacted blanket fill in order to mitigate any potential settlement impacts.

Liquefaction

MM-GEO-21 Positive drainage shall be consistently provided and maintained away from all structures. Drainage shall not be changed creating an adverse drainage condition.

MM-GEO-22 Landscape watering shall be held to a minimum. Sprinkler systems shall be maintained and plumbing leaks shall be immediately repaired to the subgrade soils underlying or adjacent to the structures do not become saturated. They should also have maximum uniform coverage with a minimum amount of water usage and overlap. Trees shall be spaced so that roots will not extend under foundations or slabs.

MM-GEO-23 Water shall not be allowed to pond or accumulate around the pool decking allowing water migration into the subgrade. All pool hardware fittings shall be adequately water tight, and caulking shall be maintained between hardscape joints and the interfaces between the hardscape and the adjoining house.

Paleontological Resources

MM-CUL-1 A qualified principal investigator for archaeology and paleontology shall be retained to provide professional services. The principal investigator shall be responsible to implement the Mitigation Plan and maintain professional standards of work. Development of a Treatment Plan is recommended to avoid construction delays.

MM-CUL-2 If microfossil localities are discovered, the monitor shall collect matrix for processing. In order to limit downtime, the monitor may request heavy machinery assistance to move large quantities of matrix out of the path of construction to designated stockpile areas. Testing of stockpiles will consist of screen washing small samples (200 pounds) to determine if fossils are present. Productive tests will result in screen washing of additional matrix from the stockpiles to a maximum of 6,000 pounds per locality.

4.7.8 LEVEL OF SIGNIFICANCE AFTER MITIGATION

Implementation of the Mitigation Measures noted above will ensure Project development and operational impacts related to Geology and Soils will be less than significant.

4.8 Greenhouse Gas Emissions

Information in this section was derived from the following: City of Palmdale General Plan, "Palmdale 2045"; City of Palmdale "Energy Action Plan" (August 3, 2011); Los Angeles County General Plan 2035 (October 6, 2015); Landrum and Brown, "Greenhouse Gas Assessment For: Quail Valley Residential Development – City of Palmdale (March 16, 2018); and the Quail Valley Planned Development plans.

4.8.1 ENVIRONMENTAL SETTING

Global Climate Change Setting/Defined

Global Climate Change (GCC) is defined as the change in average meteorological conditions on the earth with respect to temperature, precipitation and storms. Global temperatures are regulated by naturally occurring atmospheric gases such as water vapor, carbon dioxide (CO₂), nitrous oxide (N₂O), methane (CH₄), hydrofluorocarbons (HFC), perfluorocarbons (PFC), and sulfur hexafluoride (SF₆); gases that remain in the atmosphere from 10 years to more than 100 years. These gases allow solar radiation into the earth's atmosphere, but prevent radioactive heat from escaping, thus warming the earth's atmosphere. GCC also can occur naturally as it had in the past with previous ice ages.

Gases that trap heat in the atmosphere often are referred to as "greenhouse gases." These gases are released into the atmosphere by both natural and anthropogenic (human) activity. Without the natural greenhouse gas effect, the earth's average temperature would be approximately 61 degrees Fahrenheit cooler than current average temperature. The cumulative accumulation of these gases in the earth's atmosphere is considered to be the cause for the observed increase in the earth's temperature.

Greenhouse Gases and Climate Change

Earth's climate has always been in the process of changing due to many different natural factors, such as changes in the Earth's orbit, volcanic eruptions, and varying amounts of energy released from the sun. These factors have caused fluctuations in the temperature of the climate. However, since the late 19th century, starting with the Industrial Revolution, humans have increasingly impacted the rate of climate change. Human activities, particularly burning fossil fuels and deforestation, have augmented the amount of greenhouse gases being released into the Earth's atmosphere. Greenhouse gases increase the efficiency of the greenhouse effect; that is, the process of trapping and recycling energy in the form of heat the Earth emits naturally. This process of increasing greenhouse gases is what is causing the change in climate and subsequently the increase in temperature. Average temperatures have increased more quickly since the late 1970s. Eight of the top 10 warmest years on record for the contiguous 48 states have occurred since 1998. This process of heating often is referred to as "global warming." The National Academy of Sciences prefers the term "climate change" as an umbrella phrase that includes global warming and other changes taking place in addition to increasing temperatures, that include increased rainfall, wind, and current patterns, snow and ice cover, and sea level increase.

Climate change documentation uses the units of "million metric tons of carbon dioxide equivalents" (MMT CO₂ Eq.) to describe the magnitude of greenhouse gas (GHG) emissions or reductions. A metric ton of greenhouse gas is approximately 2,205 pounds.

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Environmental Impacts – Greenhouse Gas Emissions

The following are principal greenhouse gases that enter the Earth's atmosphere because of human activities.

Carbon Dioxide (CO₂) – Carbon dioxide enters the Earth's atmosphere through burning of fossil fuels (oil, natural gas and coal), agriculture, irrigation, deforestation, and cement manufacturing. Carbon dioxide is naturally removed from the air by photosynthesis, dissolution into ocean water, transfer to soils and ice caps, and chemical weathering of carbonate rocks.

Methane (CH₄) – Methane is emitted through the production and transportation of coal, natural gas, and oil, as well as from livestock. Other agricultural activities influence methane emissions and the decay of waste in landfills. Methane is a very effective absorber of radiation but has an atmospheric concentration less than carbon dioxide and its lifetime is 10 to 12 years. Exposure to high levels of methane can cause asphyxiation, loss of consciousness, headache and dizziness, nausea and vomiting, weakness, loss of coordination, and an increased breathing rate.

Nitrous Oxide (N₂O) – Nitrous oxide is released most often during the burning of fuel at high temperatures. This greenhouse gas is caused mostly by motor vehicles, which include non-road and agriculture vehicles. Nitrous oxide can cause dizziness, euphoria, and sometimes light hallucinations. It is considered harmless in small doses. However, in some cases heavy and extended use can cause Olney's Lesions (brain damage).

Fluorinated Gases – Fluorinated gases are emitted primarily from industrial sources and often include hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride. These greenhouse gases are often released in smaller quantities but are referred to as High Global Warming Potential (High GWP Gases) due to their power. Fluorinated gases often are used as substitutes for ozone depleting substances. Chlorofluorocarbons (CFC) are gases formed synthetically by replacing all hydrogen atoms in methane or ethane (C₂H₆) with chlorine and/or fluorine atoms and are non-toxic, non-flammable, insoluble and chemically unreactive in the troposphere (the level of air at the earth's surface). CFC is no longer being used and, therefore, it is not likely health effects would be experienced. However, in confined indoor locations, working with some other types of CFC are thought to result in death by cardiac arrhythmia (improper beating of the heart) or asphyxiation. Levels of major CFCs are now remaining steady or declining. However, their long atmospheric lifetimes mean some CFCs will remain in the atmosphere for more than 100 years. Hydrofluorocarbons (HFC) are synthetic, man-made chemicals used as a substitute for CFC. They are one of three groups with the highest global warming potential. No health effects are known to result from exposure to HFC, which are manmade for applications such as automobile air conditioners and refrigerants. Perfluorocarbons (PFC) have stable molecular structures and do not break down through chemical processes in the lower atmosphere. High-energy ultraviolet rays that occur about 60 kilometers above the surface of the earth are able to destroy the compounds. Thereby, PFCs have very long lifetimes; between 10,000 and 50,000 years. No health effects are known to result from exposure to PFCs. The two primary sources of PFCs are aluminum production and semiconductor manufacture. Sulfur hexafluoride (SF₆) is an inorganic, odorless, colorless, non-toxic nonflammable gas that has the highest global warming potential of any gas evaluated. In high concentrations in confined areas, the gas presents the hazard of suffocation because it displaces the oxygen needed for breathing. Sulfur hexafluoride is used for insulation in electric power transmission and distribution equipment, in the magnesium industry, in semiconductor manufacturing, and as a tracer gas for leak detection. Nitrogen trifluoride (NF₃) is a colorless gas with a distinctly moldy odor used in industrial processes and is produced in the manufacture of semiconductors and Liquid Crystal Display panels, certain types of solar panels and chemical lasers. Long-term or repeated exposure may affect the liver and kidneys and may cause fluorosis.

These greenhouse gases have different levels of global warming potential for trapping heat in the Earth's atmosphere, as indicated in the following **Table 4.8-1 (Global Warming Potential of Greenhouse Gases)**.

Table 4.8-1 – Global Warming Potential of Greenhouse Gases	
<i>Gas</i>	<i>Global Warming Potential</i>
<i>Carbon Dioxide</i>	<i>1</i>
<i>Methane</i>	<i>21</i>
<i>Nitrous Oxide</i>	<i>310</i>
<i>HFC-23</i>	<i>11,700</i>
<i>HFC-134a</i>	<i>1,300</i>
<i>HFC-152a</i>	<i>140</i>
<i>PFC: Tetrafluoromethane (CF₄)</i>	<i>6,500</i>
<i>PFC: Hexafluoroethane (C₂F₆)</i>	<i>9,200</i>
<i>Sulfur Hexafluoride (SF₆)</i>	<i>23,900</i>

Greenhouse Gas Emissions Inventories

Global greenhouse gas emissions in 2015 were as follows:

- Carbon Dioxide (fossil fuel and industrial processes) – 65%
- Carbon Dioxide (forestry and other land use) – 11%
- Methane – 16%
- Nitrous Oxide – 6%
- Fluorinated Gases – 2%

Global Greenhouse Gas Emissions by Economic Sector were as follows:

- Electricity and Heat Production – 25%
- Agriculture, Forestry and Other Land Use – 24%
- Industry – 21%
- Transportation – 14%
- Other Energy – 10%
- Buildings – 6%

The United States Environmental Protection Agency has published total United States Greenhouse Gas Emissions by Economic Sector (2020). Total Greenhouse Gas Emissions breakdown is as follows:

- Agriculture (originates from livestock such as cows, agricultural soils, and rice production)– 11%
- Commercial & Residential (originate from businesses and homes primarily from fossil fuels burned for heat, use of certain products that contain greenhouse gases, and handling of waste – 13%
- Electricity (60% originates from burning fossil fuels, mostly coal and natural gas)– 25%
- Industry (primarily originate from burning fossil fuels for energy, as well as greenhouse gas emissions from certain chemical reactions necessary to produce goods from raw materials) – 24%
- Land Use and Forestry (land areas can act as a sink, absorbing CO₂ from the atmosphere; since 1990, managed forests and other lands are a net sink – that is, they have absorbed more CO₂ from the atmosphere than they emit)
- Transportation (originate from (originate primarily from burning fossil fuel for cars, trucks, ships, trains, and airplanes; more than 90% of fuel used for transportation is petroleum based)– 27%

Since 1990, gross United States greenhouse gas emissions have decreased by 7%. From one year to the

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Environmental Impacts – Greenhouse Gas Emissions

next, emissions can rise and fall due to changes in the national economy, price of fuel, and other factors. In 2020, United States greenhouse gas emissions decreased 11% compared to 2019 levels. The sharp decrease primarily was from CO₂ emissions from fossil fuel combustion largely due to the coronavirus (COV-19) pandemic-related reductions in travel and economic activity. This included a 13% decrease in transportation emissions driven by less travel. Electric power sector emissions decreased 10% due to a slight decrease in electricity demand from the pandemic and a continued shift from coal to less carbon-intensive natural gas and renewable sources of energy.

Categories of greenhouse gas emissions in the United States in 2020 were as follows:

- Carbon Dioxide – 79%
- Methane – 11%
- Nitrous Oxide – 7%
- Fluorinated Gases – 3%

Carbon Dioxide (CO₂) enters the atmosphere through burning fossil fuels (coal, natural gas, oil), solid waste, trees and other biological materials, and also as a result of certain chemical reactions (e.g., cement manufacturing). Carbon dioxide is removed from the atmosphere (“sequestered”) when it is absorbed by plants as part of the biological carbon cycle.

Methane (CH₄) is emitted during production and transport of coal, natural gas, and oil. Methane emissions also result from livestock and other agricultural practices, land use, and by decay of organic waste in municipal solid waste landfills.

Nitrous Oxide (N₂O) is emitted during agricultural, land use, and industrial activities, as well as combustion of fossil fuels and solid waste and treatment of wastewater

Fluorinated Gases (Hydrofluorocarbons, perfluorocarbons, sulfur hexafluoride, and nitrogen trifluoride are synthetic, powerful greenhouse gases emitted from a variety of household, commercial, and industrial applications and processes.

Each of these gases can remain in the atmosphere for different amounts of time, ranging from a few years to thousands of years. All these gases remain in the atmosphere sufficiently long to become well mixed, meaning that the amount measured in the atmosphere is approximately the same all over the world, regardless of the source of the emissions.

According to the World Resources Institute, Climate Watch:

- The world’s top 10 greenhouse gas emitters contribute more than two-thirds of global greenhouse gas emissions
- The top 3 emitters of greenhouse gases are China, the United State, and India, which combined contributed (2019) more than 42.6% of total greenhouse gas emissions
- The Energy Sector is the biggest greenhouse gas emitter, accounting for more than 76% of total greenhouse gas emissions

Sources of Greenhouse Gases in California

The California Energy Commission categorizes GHG generation by source into the following five broad categories.

1. *Transportation* – includes combustion of gasoline and diesel in automobiles and trucks and also includes jet fuel consumption. Most of California’s GHG are emitted by transportation sources.
2. *Agriculture and Forestry* – GHG emissions are composed primarily of nitrous oxide from agricultural soil management, carbon dioxide from forestry practice changes, methane from enteric fermentation, and methane and nitrous oxide from manure management.
3. *Commercial and Residential* – These uses generate GHG emissions primarily from combustion of natural gas for space and water heating.
4. *Industrial* – GHG emissions are produced from many industrial activities. Major contributors include oil and natural gas extraction; crude oil refining; food processing; stone, clay, glass, and cement manufacturing; chemical manufacturing; and cement production. Wastewater treatment plants also are a significant contributor.
5. *Electric Generation* – Electric generation includes emissions from power plants in California and power plants outside of the State that supply electricity to California.

The California Air Resources Board (CARB), in its “Current California Greenhouse Gas Emissions Inventory Data” (2020), indicates in 2019, California greenhouse gas emissions amounted to 369.2 MMT CO₂e. The following sectors contributed to this amount (approximates):

- Transportation – 38%
- Industrial – 23%
- Electricity in State – 11%
- Agriculture and Forestry – 9%
- Residential – 8%
- Commercial – 6%
- Electricity Imports – 5%

Effects of Climate Change in California

Public Health

Higher temperatures may increase frequency, duration and intensity of conditions conducive to air pollution formation. In addition, if global background Ozone levels increase as predicted in some scenarios, it may become impossible to meet local air quality standards. Air quality could be further compromised by increases in wildfires, which emit fine particulate matter that can travel long distances depending on wind conditions. The Climate Scenarios report indicates that large wildfires could become up to 55 percent more frequent if greenhouse gas emissions are not significantly reduced. In addition, under the higher warming range scenario there could be up to 100 more days per year with temperatures above 90 degrees Fahrenheit in Los Angeles and 95 degrees Fahrenheit in Sacramento by 2100. This is a large increase over historical patterns and approximately twice the increase projected if temperatures remain within or below the lower warming range. Rising temperatures could increase risk of death from dehydration, heat stroke/exhaustion, heart attack, stroke, and respiratory distress caused by extreme heat.

Water Resources

A vast network of man-made reservoirs and aqueducts captures and transports water throughout the State from northern California rivers and the Colorado River. The current distribution system relies on Sierra Nevada snowpack to supply water during the dry spring and summer months. Rising temperatures, potentially compounded by decreases in precipitation, could severely reduce spring snowpack, increasing the risk of summer water shortages. The State's water supplies also are at risk from rising sea levels. An influx of saltwater could degrade California's estuaries, wetlands and groundwater aquifers. Saltwater intrusion caused by rising sea levels is a major threat to quality and reliability of water within the southern edge of the Sacramento/San Joaquin River Delta, a major fresh water supply.

If temperatures continue to increase, more precipitation could fall as rain instead of snow, and the snow that does fall could melt earlier, thereby reducing the Sierra Nevada spring snowpack by as much as 70 to 90 percent. Under the lower warming range scenario, snowpack losses could be only half as large as those possible if temperatures were to rise to the higher warming range.

Agriculture

Increased temperatures could cause widespread changes to the agriculture industry reducing the quantity and quality of agricultural products Statewide. California farmers could face greater water demand for crops and a less reliable water supply as temperatures rise. Crop growth and development could change, as could intensity and frequency of pest and disease outbreaks. Rising temperatures could aggravate Ozone pollution, which makes plants more susceptible to disease and pests and interferes with plant growth. Rising temperatures could worsen quantity and quality of yield for some of California's agricultural products, including wine grapes, fruits and nuts. In addition, GCC could shift the ranges of existing invasive plants and weeds and alter competition patterns with native plants. Also, continued GCC could alter abundance and types of many pests, lengthen pest breeding seasons, and increase pathogen growth rates.

Forests and Landscapes

GCC has the potential to intensify the current threat to forests and landscapes by increasing risk of wildfire and altering distribution and character of natural vegetation. Since wildfire risk is determined by a combination of factors including precipitation, winds, temperature, landscape and vegetation conditions, future risks will not be uniform throughout the State. Continued GCC has the potential to alter natural ecosystems and biological diversity within the State and could decrease the productivity of the State's forests.

Rising Sea Levels

Rising sea levels, more intense coastal storms, and warmer water temperatures could increasingly threaten California's coastal regions. Under the higher warming range scenario, sea level is anticipated to rise 22 to 35 inches by 2100. Elevations of this magnitude would inundate low-lying coastal areas with salt water, accelerate coastal erosion, threaten vital levees and inland water systems, and disrupt wetlands and natural habitats. Under the lower warming range scenario, sea level could rise 12 to 14 inches.

Human Health Effects

The potential health effects related directly to emissions of carbon dioxide, methane and nitrous oxide as they relate to development projects are still being debated in the scientific community. Their cumulative

effects to global climate change have the potential to cause adverse effects to human health. Climate change will likely cause shifts in weather patterns, potentially resulting in devastating droughts and food shortages in some areas.

4.8.2 *METHODOLOGY*

Project Emissions Calculation Methodology

The “Greenhouse Gas Assessment” prepared for the Project calculated GHG emissions during Project development (grading and construction) using the CalEEMod program, which calculates total emissions that result from each construction activity, on-site and off-site, compared to AVAQMD Regional Thresholds.

The Greenhouse Gas Assessment calculations were modeled in five phases to accurately represent annual construction impacts. Each phase contains major construction components that will occur in that phase, as follows.

- Phase 1 – Site preparation, grading, building construction, paving, and architectural coating.
- Phase 2 – Site preparation, grading, building construction, and architectural coating.
- Phase 3 – Building construction and architectural coating.
- Phase 4 – Building construction and architectural coating.
- Phase 5 – Building construction and architectural coating.

The Greenhouse Gas Assessment made the following assumptions:

- Site preparation would occur over a two-year time frame, would require no import or export of soil, would generate as many as 18 worker trips per day with a trip component of 10.8 miles, and would occur for a maximum 47 working days;
- Of the approximate 403 total acres to be graded, approximately one-quarter would be graded at any one time, grading would be balanced on site, and Project construction would be completed in phased construction phases over approximately four years of operational work days;
- The equipment expected to be used for building construction would include one crane, three forklifts, three loaders/backhoes, one welder, and one generator set. In addition, it was assumed that building construction might generate as many as 97 worker trips per day with a trip component of approximately 7 miles, and building construction would occur for a maximum 1,480 working days;
- Project development would require approximately 2.6 acres of non-asphalt (decomposed granite) for recreation trails and approximately 35.1 acres of asphalt for the asphalt roadway. It also was assumed that equipment expected to be used for paving would include two pavers, two sets of paving equipment, and two rollers. In addition, it was assumed that paving would generate as many as 15 worker trips per day with a trip component of 10.8 miles, and would occur for a maximum combined 64 working days during two phases; and
- Equipment to be used for the architectural coating component of Project development would include one air compressor. It also was assumed this component might generate as many as 19 worker trips per day with a trip component of approximately 10 miles. In addition, it was assumed

architectural coating would occur for a maximum combined 864 working days during five phases.

4.8.3 **REGULATORY FRAMEWORK**

International Regulations

Intergovernmental Panel on Climate Change

The Intergovernmental Panel on Climate Change formed in 1988 by the United Nations and the World Meteorological Organization to assess scientific, technical and socioeconomic information relevant to understanding the scientific basis of risk of human-induced climate change, its potential impacts, and options for adaptation and mitigation.

United Nations Framework Convention on Climate Change (Convention)

The United States joined the Convention on March 21, 1994, which enables governments to gather and share information on greenhouse gas emissions, national policies and best practices, to launch national strategies for addressing greenhouse gas emissions and adapting to expected impacts, including provision of financial and technological support to developing countries, and to cooperate in preparing for adaptation to impacts to climate change.

Kyoto Protocol

The Kyoto Protocol is an international agreement linked to the Convention and sets binding targets for 37 industrialized countries and the European community for reducing greenhouse gas emissions at an average of 5 percent against 1990 levels over the five-year period 2008-2012. The Convention encouraged industrialized countries to stabilize emissions; the Protocol commits them to do so. The United States announced it would withdraw from the Kyoto Protocol, effective November 2020. The United States has since maintained its commitment to the Kyoto Protocol.

Federal Regulations

The federal government began studying global warming as early as 1978 under the National Climate Protection Act (92 Stat. 601), which required the President to establish a program to “assist the Nation and the world to understand and respond to natural and man-induced climate processes and their implications.” The 1987 Global Climate Protection Act (Title XI of Pub. L. 100-204) directed the United States Environmental Protection Agency (EPA) to propose a “coordinated national policy on global climate change” and ordered the Secretary of State to work “through the channels of multilateral diplomacy” to coordinate efforts to address global warming. After several court rulings, the EPA was given the authority to regulate GHG under provisions of the Federal Clean Air Act.

No concrete federal regulations of greenhouse gases or major planning for climate change adaptation existed prior to the last decade. The following are actions pertaining to the federal government, greenhouse gases, and fuel efficiency.

In *Massachusetts v. Environmental Protection Agency* 549 U.S. 497 (2007), decided on April 2, 2007, the Supreme Court found that four greenhouse gases, including carbon dioxide, are air pollutants subject to regulation under Section 202(a)(1) of the Clean Air Act. The Supreme Court held that the EPA

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Administrator must determine whether emissions of greenhouse gases from new motor vehicles cause or contribute to air pollution, which may reasonably be anticipated to endanger public health or welfare, or whether the science is too uncertain to make a reasoned decision. The EPA Administrator on December 7, 2009 signed two distinct findings regarding greenhouse gases under Section 202(a) of the Clean Air Act:

- Endangerment Finding – The Administrator finds that the current and projected concentrations of the six key well-mixed GHGs: carbon dioxide, methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride in the atmosphere threaten the public health and welfare of current and future generations; and,
- Cause or Contribute Finding – The Administrator finds that the combined emissions of these well-mixed GHGs from new motor vehicles and new motor vehicle engines contribute to the GHG pollution, which threatens public health and welfare.

Although these findings do not impose requirements on other entities, this was a prerequisite for implementing greenhouse gas emissions standards for vehicles.

In September 2009, the EPA finalized a GHG reporting and monitoring program that requires facilities that emit more than 25,000 metric tons (MT) of carbon dioxide equivalent (CO₂e) to report their GHG emissions annually.

Climate Action Plan

In June 2013, the Obama Administration published a Climate Action Plan with 3 key pillars: cutting carbon pollution emissions; preparing the United States for climate change impacts; and, leading international efforts to combat climate change and prepare for its impacts.

Clean Power Plan

In September 2013, the EPA announced plans to adopt performance standards to limit GHG emissions from new power plants; and in June 2014, announced a plan to reduce GHG emissions from existing power plants by 25 percent below 2005 levels in 2020 and 30 percent by 2030 together with standards to limit emissions from modified and reconstructed power plants. In October 2014, the EPA announced a supplemental proposal to adopt standards for existing power plants. The EPA also announced plans to issue final rules on a Clean Power Plan for existing power plants and carbon pollution standards for new, modified and reconstructed power plants in Summer 2015. In February 2016, the United States Supreme Court issued a stay in implementation of the Clean Power Plan.

National Highway Traffic Safety Administration

The National Highway Traffic Safety Administration (NHTSA) announced a joint final rule establishing a national program that would reduce greenhouse gas emissions and improve fuel economy for new cars and trucks sold in the United States. The final standards are projected to result in an average industry fleetwide level of 163 grams/mile of carbon dioxide in model year 2025, which is equivalent to approximately 55 miles per gallon if achieved exclusively through fuel economy improvements.

Obama Administration

In March 2014, the Obama Administration released its Strategy to Reduce Methane Emissions as a part of its Climate Action Plan, which described several actions the EPA and other federal agencies will take to

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reduce methane emissions from the following four source categories: landfills; coal mines; agriculture; and, oil and gas production.

Trump Administration

Subsequently, the Trump Administration took steps via Executive Orders to reduce or eliminate regulations that pertain to greenhouse gas emissions and global climate change. Between January and March 2017, President Trump signed three Executive Orders seeking regulatory reform, including the review, repeal, replacement, or modification to existing regulations. Executive Order 13,771 “Reducing Regulation and Controlling Regulatory Costs” focuses on “managing the cost associated with the governmental imposition of private expenditures required to comply with Federal Regulation.” The Executive Order also required for every new regulation issued, at least two prior regulations be identified for elimination and the costs of planned regulations be prudently managed and controlled through a budgeting process. Executive Order 13,777 directed federal agencies to create a Regulatory Reform Task Force which had as a duty to evaluate existing regulations and make recommendations to the agency head regarding their repeal, replacement, or modification consistent with applicable law. Executive Order 13,783 called for a review of the Clean Power Plan and related rules, for oil and gas, and all agencies to “review existing regulation, orders, guidance documents, and policies that potentially burden the development or use of domestically produced energy resources.” This Executive Order also repealed certain energy and climate-related presidential and regulatory actions. In addition, several federal reports regarding climate change were withdrawn as required by this Executive Order.

On June 1, 2017, the Trump Administration announced it would be withdrawing from the Paris Agreement, citing the Agreement could cost the United States economy millions of jobs and trillions of dollars in economic output over the following several decades. On October 16, 2017, the EPA issued a proposed repeal of the Clean Power Plan.

Subsequent Administration

The Biden Administration is in process to reverse several of the Trump Executive Orders, and introduce new orders. Subsequent administrations over the life of the Project likely will initiate additional changes.

Clean Vehicles

Congress initially passed the Corporate Average Fuel Economy law in 1975 to increase fuel economy of cars and light duty trucks. The law became more stringent over time. In May 2019, a new national policy to increase fuel economy for all new cars and trucks sold in the United States was put in motion.

State of California Regulations

The State of California legislature has enacted a series of bills that constitute the most aggressive program to reduce greenhouse gas emissions of any state in the nation. Project development and operation would be required to comply with all mandates imposed by the State of California and the SCAQMD aimed at reduction of air quality emissions.

The regulatory mandates that are applicable to the Project and that would assist in the reduction of greenhouse gas emissions are the following:

Global Warming Solutions Act of 2006 (California State Assembly Bill 32)

Assembly Bill 32 requires greenhouse gas emissions in California be reduced to 1990 levels by year 2020. GHG as defined under this legislation include carbon dioxide, methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride. Since AB 32 was enacted, a seventh chemical, nitrogen trifluoride has been added to the list of greenhouse gas emissions. The CARB is the State agency charged with monitoring and regulating sources of greenhouse gases. Under an updated forecast, a 21.7 percent reduction from “business as usual” is required to achieve 1990 levels. The CARB has made substantial progress in reaching its goal of achieving 1990 emissions levels by 2020.

California Air Resources Board Scoping Plan (2008; 2014)

The CARB Climate Change Scoping Plan (Scoping Plan) contains measures designed to reduce the State emissions to 1990 levels by the year 2020 to comply with AB 32. The Scoping Plan identifies recommended measures for multiple greenhouse gas emission sectors and associated emission reductions needed to achieve the year 2020 reduction target. Most measures target the transportation and electricity sectors. The Scoping Plan states the key elements of the strategy for achieving the 2020 greenhouse gas target include the following:

- Expanding and strengthening existing energy efficiency programs as well as building and appliance standards;
-
- Achieving a Statewide renewables energy mix of 33 percent;
- Developing a California cap-and-trade program that links with other Western Climate Initiative partner programs to create a regional market system;
- Establishing targets for transportation-related greenhouse gas emissions for regions throughout California and pursuing policies and incentives to achieve those targets;
- Adopting and implementing measures pursuant to existing State laws and policies, including California’s clean car standards, goods movement measures, and the Low Carbon Fuel Standard; and,
- Creating targeted fees, including a public goods charge on water use, fees on high global warming potential gases, and a fee to fund the administrative costs of the State’s long-term commitment to AB 32 implementation.

The CARB approved the First Update to the Scoping Plan (Update) on May 22, 2014. The Update identifies the next steps for California’s climate change strategy. The Update shows how California continues on its path to meet the near-term 2020 greenhouse gas limit, but also sets a path toward long-term, deep greenhouse gas emission reductions. The report establishes a broad framework for continued emissions reductions beyond 2020, on the path to 80 percent below 1990 levels by 2050. While the original 2008 Scoping Plan provided specific GHG reduction measures in nine different economic sectors, the 2014 Update treats reductions in six key focus areas (energy; transportation; agriculture; water; wasted management; and, natural and working lands) as well as short-lived pollutants, green buildings, and the California Cap and Trade Program.

Climate Change Scoping Plan Update (November 2017)

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The 2017 Scoping Plan Update identifies California's post-2020 reduction strategy and reflects the 2030 target of a 30 percent reduction below 1990 levels, set by Executive Order B-30-15 and codified by Senate Bill 32. Key programs the proposed Second Update builds upon include the Cap-and-Trade Regulation, the Low Carbon Fuel Standard, and much cleaner cars, trucks and freight movement, utilizing cleaner, renewable energy, and strategies to reduce methane emissions from agricultural and other wastes. Major elements of the 2017 Scoping Plan framework include the following:

- Implementing and/or increasing the standards of the Mobile Source Strategy, which include increasing zero emission vehicle (ZEV) buses and trucks;
- Low Carbon Fuel Standard (LCFS), with an increased stringency (18 percent by 2030);
- Implementing Senate Bill 350, which expands the Renewables Portfolio Standard (RPS) to 50 percent RPS and doubles energy efficiency savings by 2030;
- California Sustainable Freight Action Plan, which improves freight system efficiency, utilizes near-zero emissions technology and deployment of ZEV trucks;
- Implementing the proposed Short-Lived Climate Pollutant Strategy (SLPS), which focuses on reducing methane and hydrofluorocarbon emissions by 40 percent and anthropogenic black carbon emissions by 50 percent by year 2030;
- Continued implementation of Senate Bill 375;
- Post-2020 Cap-and-Trade Program that includes declining caps;
- Twenty percent reduction in greenhouse gas emissions from refineries by 2030; and,
- Development of a Natural and Working Lands Action Plan to secure California's land base as a net carbon sink.

The 2017 Scoping Plan also identifies local governments as essential partners in achieving California's long-term greenhouse gas reduction goals and identifies local actions to reduce greenhouse gas emissions.

Cap-and-Trade Program

The Scoping Plan identifies a Cap-and-Trade Program as one of the key strategies for California to reduce its greenhouse gas emissions. Under Cap-and-Trade, an overall limit on greenhouse gas emissions from capped sectors is established and facilities subject to the cap will be able to trade permits to emit greenhouse gases within the overall limit. The Cap-and-Trade Program provides a firm cap, ensuring that 2020 Statewide emission limit will not be exceeded. As of January 1, 2015, the Cap-and-Trade Program covered approximately 85 percent of California's greenhouse gas emissions. The Program covers greenhouse gas emissions associated with electricity consumed in California, whether generated in-State or imported. Thereby, greenhouse gas emissions associated with CEQA projects' electricity usage are covered by the Program. The Cap-and-Trade Program also covers fuel suppliers (natural gas, propane fuel, and transportation fuel providers) to address emissions from such fuels. This Program works with other direct regulatory measures and provides an economic incentive to reduce emissions.

The Sustainable Communities and Climate Protection Act of 2008 (Senate Bill 375)

Senate Bill 375 (SB 375) indicates the transportation sector is the largest contributor of GHG emissions, accounting for more than 40 percent of total GHG emissions in California. This Bill does the following: (1) requires metropolitan planning organizations to include sustainable community strategies in their regional transportation plans for reducing GHG emissions; (2) aligns planning for transportation and housing; and (3) creates specified incentives for implementation of the strategies. Concerning CEQA, SB 375 (as codified in Public Resources Code Section 21159.28) states that CEQA findings for certain projects are not required to reference, describe, or discuss growth inducing impacts or any project-specific or

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cumulative impacts from cars and light-duty truck trips generated by the project on global warming or the regional transportation network if the project:

1. Is in an area with an approved sustainable communities strategy or an alternative planning strategy that the CARB accepts as achieving the GHG emission reduction targets;
2. Is consistent with that strategy (in designation, density, building intensity, and applicable policies); and,
3. Incorporates mitigation measures required by an applicable prior environmental document.

Pavley Fuel Efficiency Standards (Assembly Bill 1493)

Assembly Bill 1493 (AB 1493) enacted on July 22, 2002, required the CARB to develop and adopt regulations that reduce greenhouse gases emitted by passenger vehicles and light duty trucks. The regulation will reduce greenhouse gases from new cars by 33 percent from 2016 levels by 2025. The rules will clean up gasoline and diesel-powered cars and deliver increasing numbers of zero-emission technologies such as full battery electric cars, newly emerging plug-in hybrid electric vehicles and hydrogen fuel cell cars. Also, adequate fueling infrastructure availability will be ensured for the increasing numbers of hydrogen fuel cell vehicles planned for deployment in California.

California Renewable Portfolio Standard Program: Emissions of Greenhouse Gases 2017-2018 (Senate Bill 100)

Senate Bill 100 (SB 100) states in part as follows:

This bill would state that it is the policy of the state that eligible renewable energy resources and zero-carbon resources supply 100 percent of retail sales of electricity to California end-use customers and 100 percent of electricity procured to serve all state agencies by December 31, 2045. The bill would require that the achievement of this policy for California not increase carbon emissions elsewhere in the western grid and that the achievement not allow resource shuffling. The bill would require the PUC and the Energy Commission, in consultation with the state board, to take steps to ensure that a transition to a zero-carbon electric system for the State of California does not cause or contribute to greenhouse gas emissions increases elsewhere in the western grid.

Executive Order S-3-05

Executive Order S-3-05 signed January 18, 2007, announced the following GHG emissions reduction targets:

- By 2010, reduce GHG emissions to 2000 levels;
- By 2020, reduce GHG emissions to 1990 levels; this was achieved
- By 2050, reduce GHG emissions to 80 percent below 1990 levels.

The 2050 reduction goal represents what some scientists believe is necessary to reach levels that will stabilize the climate. The goals are not legally enforceable for local governments or the private sector because this is an Executive Order.

Executive Order S-01-07: Low Carbon Fuel Standard (LCFS)

Effective January 18, 2007, Executive Order S-01-07 mandates a Statewide goal shall be established to

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reduce carbon intensity of California's transportation fuels by at least 10 percent by 2020. After legal challenges, a new LCFS regulation became effective on January 1, 2016.

Executive Order B-30-15

Executive Order B-30-15 became effective on April 29, 2015 to establish a California GHG reduction target of 40 percent below 1990 levels by 2030. This Order aligned California's GHG reduction targets with those of leading international governments ahead of the United Nations Climate Change Conference in Paris in late 2015. This target was set to ensure California meets its target of reducing GHG emissions to 80 percent below 1990 levels by 2050 and directed the CARB to update the Climate Change Scoping Plan to express the 2030 target in terms of million metric tons of carbon dioxide equivalent (MMCO₂e). The Order also requires the State Climate Adaptation Plan to be updated every three years and for California to continue its climate change research program among other provisions. This Order is not legally enforceable for local governments and the private sector.

California Regulations and Building Codes

California has adopted the following regulations to improve energy efficiency in new and remodeled buildings, which have kept California's energy consumption relatively flat even with rapid population growth.

Title 20 Appliance Efficiency Standards

Title 20 regulates the sale of appliances in California and includes standards for federally regulated appliances and non-federally regulated appliances (totaling 23 categories of appliances).

Title 24 Energy Efficiency Standards and California Green Building Standards

The Title 24 Energy Efficiency Standards were initially adopted in 1978 to reduce energy consumption and are updated periodically to allow consideration and possible incorporation of new energy efficient technologies and methods.

Homes and businesses use nearly 70 percent of California's electricity and are responsible for a quarter of California's greenhouse gas emissions. As California's energy policy agency, the California Energy Commission was mandated by the Warren-Alquist Act to periodically update and adopt building standards to increase energy efficiency of buildings and reduce greenhouse gas emissions. Part 6 of Title 24 implemented this mandate so that every three years the California Energy Commission presents Building Energy Efficiency Standards (Energy Code) updates for new construction and renovations to existing buildings. After the California Energy Commission adopts these standards, they are submitted to the California Building Standards Commission for approval and inclusion with other changes to the Building Code. The Energy Code is designed to be cost-effective so that implementation is affordable while helping California manage energy demand and advance California's climate and clean air goals.

The 2019 Title 24 standards require solar photovoltaic systems for new homes, establish requirements for newly constructed healthcare facilities, encourage demand-responsive technologies for residential buildings, and update indoor and outdoor lighting for nonresidential buildings. It is anticipated that nonresidential buildings will use approximately 30 percent less energy due to lighting upgrades.

The 2022 Code is applicable to the Project. The CEC indicates the 2022 Title 24 updated standards will

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require single-family residences to include heat pump water or space as standard equipment, to be electric-ready (including electrical circuits for space heating, water heating, cooking/ovens, and clothes dryers, electrical panel for branch circuits and transfer switch for battery storage, and dedicated circuits and panels to easily convert from natural gas to electric in the future. In addition, the 2022 Energy Code extends solar and introduces battery storage standards to various building types.

The Project will design building shells and building components, such as windows, roof systems, electrical and lighting systems, and heating, ventilating, and air conditioning systems to meet 2022 Title 24 Standards.

The California Green Building Standards Code (CALGreen) is a comprehensive and uniform regulatory code for all residential, commercial and school buildings that became effective on January 1, 2011. CALGreen is administered by the California Building Standards Commission and is updated regularly. The most recent update became effective January 1, 2017. Local jurisdictions are permitted to adopt more stringent requirements because State law provides methods for local enhancements. The Code also provides exemptions for areas not served by construction and demolition recycling infrastructure. The following are examples of CALGreen's requirements that are applicable to the Project:

- Construction Waste: A minimum 65 percent diversion of construction and demolition waste from landfills, increasing voluntarily to 80 percent for new homes and commercial projects. All (100 percent) of trees, stumps, rocks and associated vegetation and soils resulting from land clearing shall be reused or recycled.
- Materials Pollution Control: Low-pollutant emitting interior finish materials such as paints, carpet, vinyl flooring and particle board.
- Wastewater Reduction: Each building shall reduce generation of wastewater by installation of water-conserving fixtures or using non-potable water systems.
- Water Use Savings: Mandatory 20 percent reduction of non-residential indoor water use with voluntary goal standards for 30, 35, and 40 percent reductions.
- Irrigation Efficiency: Moisture-sensing irrigation systems for larger landscaped areas.

Model Water Efficient Landscape Ordinance

The Model Water Efficient Landscape Ordinance was required by the Water Conservation Act (Assembly Bill 1881). Local agencies were required to adopt a local landscape ordinance at least as effective in conserving water as the Model Ordinance by January 1, 2010. Reductions in water use of 20 percent consistent with the 2020 mandate were expected upon compliance with the Ordinance. The California Water Commission approved a revised Ordinance on July 15, 2015 (effective December 15, 2015). The update required new development projects that include landscape areas of 500 or more square feet to implement the following:

- More efficient irrigation systems;
- Incentives for graywater usage;
- Improvements in on-site stormwater capture;
- Limitations on the portion of landscapes that can be planted with high water use plants; and,
- Required reports for local agencies.

Phase I and 2 Heavy-Duty Vehicle Greenhouse Gas Standards

The CARB adopted a regulation for greenhouse gas emissions from heavy-duty trucks and engines sold in California. It establishes GHG emission limits on truck and engine manufacturers and harmonizes with the

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United States Environmental Protection Agency rule for new trucks and engines nationally. Existing heavy-duty vehicle regulations in California include engine criteria emission standards, tractor-trailer GHG requirements to implement SmartWay strategies, and in-use fleet retrofit requirements such as the Truck and Bus Regulation. The CARB staff has worked jointly with the United States EPA and the NHTSA on Phase 2 of federal greenhouse gas emission standards for medium- and heavy-duty vehicles. Phase 2 standards were built on improvements in engine and vehicle efficiency required by Phase 1 emission standards and represent a significant opportunity to achieve further GHG reductions for 2018 and later model year heavy-duty vehicles, including trailers.

Senate Bill 97 and CEQA Guidelines Update

The CEQA Amendments provide guidance to public agencies pertaining to the analysis and mitigation of effects from GHG emissions in CEQA documents. The CEQA Amendments added climate change as a topic for analysis. CEQA Guidelines Section 15064.4 was added to assist agencies in determining significance of GHG emissions. This section allows agencies the discretion to determine whether a quantitative or qualitative analysis is best for a particular project. However, little guidance was offered about how to determine whether a project's estimated GHG emissions were significant or cumulatively considerable.

CEQA Guidelines Sections 15126.4 and 15130 were also amended to address mitigation measures and cumulative impacts, respectively. GHG mitigation measures are referenced in general terms; no specific measures are promoted. The revision to the cumulative impact discussion requirement directs agencies to analyze GHG emissions in an EIR when a project's incremental contribution of emissions may be cumulatively considerable but does not answer the question of when emissions are cumulatively considerable. Section 15183.5 permits programmatic GHG analysis and later project-specific tiering, as well as preparation of GHG Reduction Plans. According to Section 15183.5(b), compliance with such plans can support a determination that a project's cumulative effect is not cumulatively considerable.

The CEQA Amendments also revised the CEQA Guidelines, which focuses on Energy Conservation. The sample environmental checklist in CEQA Guidelines Appendix G was amended to include GHG questions.

Regional Regulations

Antelope Valley Air Quality Management District Plans, Policies, Regulations, and Laws

In 1997, California State legislation established the AVAQMD). This legislation separated the Antelope Valley and northern Los Angeles County from the SCAQMD. South Coast Air Quality Management District rules, policies and plans established prior to creation of AVAQMD were incorporated into the District's State Implementation Plan (SIP), Rulebook, and policies. One such policy was the "Policy on Global Warming and Stratospheric Ozone Depletion" (April, 1990), which committed the SCAQMD to consider global impacts in rulemaking and in drafting revisions to the Air Quality Management Plan. In March, 1992, the SCAQMD Governing Board reaffirmed this policy and adopted amendments to the policy to include the following directives:

- Phase out use and corresponding emissions of chlorofluorocarbons (CFC), methyl chloroform, carbon tetrachloride, and halons by December, 1995;
- Phase out the large quantity use and corresponding emissions of hydrochlorofluorocarbons (HCFC) by year 2000;
- Develop recycling regulations for HCFC;

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- Develop an emissions inventory and control strategy for methyl bromide; and,
- Support adoption of a California GHG emission reduction goal.

Legislative and regulatory activity is expected to require significant development and implementation of energy efficient technologies and shifting of energy production to renewable sources.

Local Regulations

City of Palmdale General (Palmdale 2045)

A General Plan Consistency Assessment of Palmdale 2045 Goals and Policies, relevant to the Quail Valley Energy Action Plan Analysis is contained in **Appendix A** of this EIR.

Sustainability, Climate Action, and Resilience Element

Policy SCR-7.5: **Cool Pavement.** Incorporate cool pavement practices into street maintenance activities to reduce the urban heat island effect.

Goal SCR-8: **Proactively Advance Community Resilience.**

Policy SCR-8.7: **Heat and Wildfire Mitigation.** Develop policies and building standards that reduce the urban heat island effect and the risk and damage of wildfire such as:

- Encourage the use of high-albedo roofs and paving
- Incorporate more robust temperature and air quality controls in facility retrofits and designs
- Provide consolidated public messaging about wildfire preparation, evacuation, and communications avenues in multiple languages
- Encourage fire-wise landscaping including alternatives to wood fencing
- Require ember-resistant attic ventilation openings
- Encourage the installation of air filters to protect against indoor air quality impacts during wildfire smoke exposure events
- Identify and modify vulnerable infrastructure in high wildfire risk areas, such as replacing wooden utility poles or undergrounding utility lines

Air Quality Element

Goal AQ-1 **Minimize Local Air Pollution Caused by Motor Vehicles.**

Policy AQ-1-8: **Environmentally Review New Development.** Use the environmental review process for new development applications to assess and, as necessary, mitigate the impacts of new development related to increased vehicle miles traveled.

Policy AQ-3-5: **Minimize Emissions.** Minimize emissions of toxic air contaminants that contribute to climate change and ozone depletion, and that create potential health risks for residents, workers, and visitors.

City of Palmdale Energy Action Plan (2011)

The City of Palmdale Energy Action Plan (Plan) demonstrates Palmdale's commitment to achieve energy

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efficiency and independence by reducing greenhouse gas emissions consistent with California State legislation. The Plan intends to provide a framework for reducing energy demand and related emissions from City government operations and facilitate reductions in the Palmdale community through the goals, measures and actions identified in the Plan. These stipulations are designed to sustain the economic, environmental and physical health of the Palmdale community and provide the highest quality of life possible.

The City of Palmdale adopted its “Energy Action Plan” in August 2011. The Energy Action Plan developed goals and policies to maintain good local air quality and reduce local contribution of airborne pollutants in the community. The primary goal of the Energy Action Plan is, “to identify how the city will use energy efficiency and independence strategies to achieve its GHG emission reduction target of 15 percent by the year 2020 consistent with the State’s overall target to reduce GHG emissions statewide to 1990 levels by 2020.” The City created the following seven goals with respective tools for success measurements of each to achieve a 15 percent reduction equal to 806,019 metric tons of carbon dioxide equivalent per year (MTCO₂e/year) from the 2005 baseline level of 948,258 MTCO₂e/year by year 2020; and a 20 percent reduction from the 2005 baseline level to 760,792 MTCO₂e by year 2035.

- Goal 1: Reduce energy demand through energy conservation and efficiency;
- Goal 2: Reduce water consumption for energy conservation;
- Goal 3: Promote renewable energy generation and use;
- Goal 4: Reduce transportation emissions through alternative vehicles, trip reduction and consolidation, and efficient flow;
- Goal 5: Implement smart land use to reduce vehicular trips;
- Goal 6: Reduce waste; and,
- Goal 7: Support the “Buy-Local” movement.

The Energy Action Plan provides the following priorities for achieving increased energy efficiency and conservation with broad-based public support:

- Reliable and efficient energy sources that are cost effective;
- Land uses that reduce transportation time and costs;
- Household and business investment in the local economy; and,
- Investments in competitive industries that bring jobs and infrastructure to Palmdale.

The following **Table 4.8-2 (Energy Action Plan Goals and Measures Summary)** provides a brief introduction to Energy Action Plan Goals and Measures (from Palmdale Energy Action Plan, adopted August 3, 2011).

Table 4.8-2 – Energy Action Plan Goals and Measures Summary	
Goal 1: Reduce energy demand through energy conservation and efficiency.	
Measure	
1.1	Implement energy efficiency improvements (i.e. retrofits) in existing City buildings and facilities.
1.2	Exceed Title 24 energy efficiency standards in new City facilities as feasible.

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Table 4.8-2 – Energy Action Plan Goals and Measures Summary

1.3	Encourage new development to exceed Title 24 energy use requirements by 15 percent.
1.4	Reduce the urban heat island effect to reduce energy consumption and cool the local climate through increased shading on private property, cool surfaces, and high albedo surfaces for sidewalks and parking lots.
1.5	Use City capital improvements and programs to educate the public and promote energy conservation.
1.6	Promote energy efficiency improvements in the City's housing stock.
1.7	Facilitate comprehensive home energy retrofits.
1.8	Promote energy efficiency in commercial and industrial uses through partnerships and programs.
1.9	Establish Palmdale as a model for energy-efficient and innovative industrial, manufacturing, and commercial businesses.
1.10	Continue to participate in regional initiatives to meet energy efficiency targets.
Goal 2: Reduce water consumption for energy conservation.	
2.1	Reduce municipal water consumption to reduce energy consumption and conserve water resources.
2.2	Continue to educate the public about water conservation and showcase municipal water conservation projects.
2.3	Facilitate a 20 percent reduction in water use by 2020 to exceed the 20x2020 initiative to reduce energy consumed for water conveyance and treatment.
2.4	Work with regional partners to stabilize water supplies and conservation capabilities.
Goal 3: Promote renewable energy generation and use.	
Measure	
3.1	Demonstrate City leadership in renewable energy by supplying 100 percent of City energy needs with renewable sources by 2035.
3.2	Encourage the commercial and industrial sector to meet energy needs through on-site renewable energy sources.
3.3	Encourage the residential sector to meet energy needs through on-site renewable energy sources.
3.4	Facilitate the establishment of large-scale solar facilities to supply regional energy needs.
3.5	Construct and operate the Palmdale Hybrid Power Plant (PHPP) to support the State's Renewable Energy Portfolio and promote the growth of the local renewable energy industry.
Goal 4: Reduce transportation emissions through alternative vehicles, trip reduction and consolidation, and efficient flow.	
4.1	Continue to promote ride sharing and TDM programs to reduce use of traditional motor vehicles for work commutes.
4.2	Employ low emissions vehicles for City government operations where practicable.
4.3	Reduce emissions from mobile sources through efficient vehicle flow.
4.4	Implement a Complete Streets approach to transportation to improve mobility.
4.5	Reduce emissions from on-road vehicle sources.
4.6	Reduce transportation emissions from the commercial and industrial sectors.
4.7	Support the expansion of transit options within Antelope Valley to reduce vehicle miles traveled.
4.8	Promote upgrades to the regional transit fleet.
Goal 5: Implement smart land use to reduce vehicular trips.	
5.1	Promote accessible housing near transit and services.
5.2	Pursuant to SB 375, support the development and implementation of a regional Sustainable Communities Strategy with the Southern California Association of Governments through local plans and programs.
Goal 6: Reduce waste.	
6.1	Implement the City's Environmentally Preferable Procurement Program.
6.2	Achieve an 80 percent diversion of landfilled waste by 2020.
6.3	Collaborate with regional partners to achieve local waste diversion targets.
Goal 7: Support the "Buy-Local" movement.	
7.1	Support efforts that encourage Palmdale residents and businesses to buy goods and services locally.

Source: City of Palmdale, Energy Action Plan. Adopted August 3, 2011.

4.8.4 THRESHOLDS FOR DETERMINING SIGNIFICANCE

This EIR uses CARB Significance Thresholds and AVAQMD Significance Thresholds, as indicated in the Greenhouse Gas Assessment prepared for the Project, to determine levels of significance according to the following CEQA Guidelines Appendix G Thresholds of Significance. Environmental impacts due to GHG would be significant if the project would:

Threshold GHG-1 Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment.

Threshold GHG-2 Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases.

AVAQMD Significance Thresholds

The following **Table 4.8-3 (AVAQMD Greenhouse Gases Thresholds of Significance)**, presents the AVAQMD CEQA and Conformity Guidelines significance thresholds for greenhouse gases (CO₂ Eq.) for a daily threshold and an annual threshold.

Table 4.8-3 – AVAQMD Greenhouse Gases Thresholds of Significance		
<i>Criteria Pollutant</i>	Daily Threshold (Pounds)	<i>Annual Threshold (Metric Tons)</i>
<i>Greenhouse Gases (CO₂ Eq.)</i>	548,000	100,000

Source: Antelope Valley AQMD, California Environmental Quality Act and Federal Conformity Guidelines, August 2016.

The AVAQMD annual threshold is approximately nine percent more stringent than the CARB recommended de minimis threshold.

4.8.5 ENVIRONMENTAL IMPACT**Impact Analysis**

Threshold GHG-1 Would the Project generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?

Less Than Significant Impact.

The Greenhouse Gas Assessment prepared for the Project indicates that currently, “a widely accepted quantitative threshold for determining whether GHG emissions will have a significant impact on the environment needed to answer the first question [**Threshold GHG-1**] has not been established.” Although both the CARB and AVAQMD have published draft thresholds for review and comment, these agencies have not yet adopted significance thresholds applicable to general projects. California is the fifteenth largest emitter of greenhouse gases on earth, which represents approximately two percent of the world’s emissions. The following are proposed CARB and AVAQMD thresholds that the Greenhouse Gas Assessment prepared for the Project uses as guidance for a qualitative assessment of Project GHG impact potential.

California Air Resources Board

The California Air Resources Board (CARB) is the lead agency for implementing AB 32, which requires the reduction of California's GHG emissions to 1990 levels by 2020. Key measures, as identified in the CARB Scoping Plan to achieve this goal pertain to actions municipal agencies should implement and do not pertain directly to the Project.

CARB anticipates a five million metric tons of CO₂ equivalent (MMT CO₂ Eq.) reduction for regional transportation-related greenhouse gas targets. To meet the 1990 target set by AB 32, CARB recommends a de minimis (minimal importance) emission threshold of 0.1 MMT annual (100,000 MT per year) CO₂ Eq. per transportation source category. This de minimis threshold will be utilized for transportation sources until approved thresholds and guidelines are adopted at the local and regional level.

The following **Table 4.8-4 (Total Mitigated Construction CO₂ Emissions)** shows that the Project's total mitigated annual CO₂ equivalent emissions generated during construction are estimated to be 13,696.6 metric tons per year, which is well below the AVAQMD's annual threshold of 100,000 metric tons per year.

Similarly, the following **Table 4.8-5 (Total Mitigated Operational CO₂ Emissions)** shows that the Project's total mitigated annual CO₂ equivalent emissions generated during operation are estimated to be 13,721.7 metric tons per year, which is also well below the AVAQMD's annual threshold of 100,000 metric tons per year.

As is shown in these two tables, annual CO₂ equivalent emissions generated during Project construction and operation are well below the AVAQMD's annual threshold of 100,000 metric tons per year. Therefore, construction and operation of the Project will result in a less than significant impact pertaining to greenhouse gas emissions.

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Environmental Impacts – Greenhouse Gas Emissions

Table 4.8-4 – Total Mitigated Construction CO₂ Emissions

Activity	Annual Emissions (MT/Year)			
	CO ₂	CH ₄	N ₂ O	CO ₂ Eq.
Grading – 2020	1,628.73	0.50	0	1,641.23
Site Preparation – 2020	651.43	0.20	0	656.39
Architectural Coating – 2021	76.64	0	0	76.76
Building Construction – 2021	1,492.44	0.23	0	1,498.24
Grading – 2021	3,185.98	1.00	0	3,210.97
Paving – 2021	776.09	0.24	0	782.04
Site Preparation – 2021	637.15	0.20	0	642.10
Architectural Coating – 2022	75.89	0	0	76
Building Construction – 2022	1,481.98	0.23	0	1,487.68
Architectural Coating – 2023	74.88	0	0	74.98
Building Construction – 2023	1,415.21	0.22	0	1,420.79
Architectural Coating – 2024	68.40	0	0	68.49
Building Construction – 2024	1,114.39	0.21	0	1,119.63
Building Construction – 2025	443.73	0.10	0	446.25
Architectural Coating – 2026	49.12	0	0	49.18
Building Construction – 2026	443.40	0.10	0	445.90
Total Emissions	13,696.6 MT CO ₂ Eq./Year			
Significance Threshold	100,000 MT CO ₂ Eq./Year			
Exceed Threshold?	No			

Table 4.8-5 – Total Mitigated Operational CO₂ Emissions

Activity	Annual Emissions (MT)			
	CO ₂	CH ₄	N ₂ O	CO ₂ Eq.
Mobile	9,985.8	0.4	--	9,995.8
Energy	2,087.4	0	0	1,093.8
Architectural Coating	--	--	--	--
Landscaping	18.2	0	--	18.7
Consumer Products	--	--	--	--
Hearth	2,598	0	0	2,613.4
Total Emissions	13,721.7 MT CO ₂ Eq./Year			
Significance Threshold	100,000 MT CO ₂ Eq./Year			
Exceed Threshold?	No			

Threshold GHG-2 Would the Project conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

Less Than Significant Impact.

Project development and operation will result in generation of greenhouse gas emissions levels well below AVAQM's annual emission thresholds, as demonstrated in Tables 4.8-5 and 4.8-6 above. No conflict with applicable plans or regulations will occur. The resultant level of impact of Project development and operation pertaining to greenhouse gas emissions will be less than significant.

Development on the LAFCO-approved non-Quail Valley properties proposed for annexation would require site-specific environmental analysis of potential impacts pertaining to CEQA-identified Greenhouse Gas Emissions topics for analysis. The non-Quail Valley areas within the overall annexation boundary include vacant lots, lots with existing housing, and the proposed Falcon Glen project area. Residential development on the Falcon Glen site could result in the construction of 975 single-family dwelling units and 3,510 new residents. As the Falcon Glen project is undergoing a separate approval process, the Greenhouse Gas impacts of that project would be addressed as part of that project review. The Falcon Glen project area is currently vacant land. Any development on non-Quail Valley properties to be annexed would likely emit greenhouse gases.

4.8.6 CUMULATIVE IMPACTS

Greenhouse gas emissions are the primary cause of global climate change. An individual project does not have the potential to result in direct and significant global climate change related effects in the absence of cumulative sources of greenhouse gas emissions. CEQA Guidelines emphasize the effects of greenhouse gas emissions are cumulative and should be analyzed in the context of CEQA requirements for cumulative impacts analysis (CEQA Guidelines Section 151309(f)). According to the City of Palmdale, there are 14 projects that are “in the pipeline” within approximately two miles of the approximately 878.1-acre Quail Valley Project site. Total build out of these projects will comprise of the following: 9,477 single-family detached residential units; 2,823 single-family attached residential units; 2,080 multi-family residential units; and 1,161,135 square feet of commercial space. The proposed Project would add 701 single-family detached residential units with an additional 29 single-family detached or multi-family residential units, depending on market demand. Therefore, the proposed Project represents up to approximately 7.2 percent of the total single-family detached residential units at build out; approximately 5.6 percent of the total cumulative single-family (detached and attached residential units); and approximately 4.8 percent of the total cumulative number of residential units. This indicates a commensurate increase in greenhouse gas emissions due to Project development and Project operation. However, Project development and operation, together with these 14 future projects within the vicinity of the Project site, will be required to comply with State of California and City of Palmdale laws and ordinances pertaining to the reduction of greenhouse gas emissions. Compliance will result in less than significant cumulatively considerable impacts pertaining to greenhouse gas emissions.

Development on the LAFCO-approved non-Quail Valley properties proposed for annexation would require site-specific environmental analysis of potential cumulative impacts pertaining to CEQA-identified Greenhouse Gas Emissions topics for analysis. Residential development on the Falcon Glen site could result in the construction of 975 single-family dwelling units and 3,510 new residents. The Falcon Glen project is undergoing a separate approval process. The Greenhouse Gas cumulative impacts of that project will be addressed as part of that project review. The Falcon Glen project area is currently vacant land. Any development on non-Quail Valley properties to be annexed would likely emit greenhouse gases.

4.8.7 LEVEL OF SIGNIFICANCE BEFORE MITIGATION

The Greenhouse Gas Assessment prepared for the Project accounts for the applicable regulations in the Project greenhouse gas emissions calculations, particularly the Pavley Standards, Low Carbon Fuel Standards, and the Renewable Portfolio Standards, which will be in effect for the Assembly Bill 32 target year of 2020. Operational CO₂ emissions were identified to be below the AVAQMD’s significance

threshold of 100,000 metric tons annually for CO₂ Eq. The Greenhouse Gas Assessment indicates the level of significance is less than significant and no mitigation measures are required.

4.8.8 *MITIGATION MEASURES*

No mitigation measures are required because no significant impacts related to Greenhouse Gas Emissions have been identified. Compliance with Palmdale 2045 policies would contribute to ensuring any Project-related impacts to Greenhouse Gas Emissions would be maintained at a less than significant level.

4.8.9 *LEVEL OF SIGNIFICANCE AFTER MITIGATION*

Project development and operation impacts related to greenhouse gas emissions will be less than significant.

4.9 Hazards and Hazardous Materials

Information for this section was derived from the following: City of Palmdale General Plan, "Palmdale 2045"; Palmdale 2045 EIR; Los Angeles County General Plan 2035 (October 6, 2015); Carlin Environmental Consulting, Inc., "Phase I Environmental Site Assessment for Tract 65813, Quail Valley Planned Development – Ana Verde Hills Project, City of Palmdale, California" (February 16, 2018); and the Quail Valley Planned Development Project plans.

4.9.1 ENVIRONMENTAL SETTING

The approximately 878.1-acre vacant Project site is irregularly-shaped and located in unincorporated Los Angeles County adjacent to the southwestern portion of the City of Palmdale and is within the City of Palmdale Sphere of Influence. The Project site has never been developed. Only minor grading has occurred on the site for transmission lines. An unnamed intermittent stream trends north through the central portion of the site. The Project site is bounded on the northeast by the California Aqueduct, on the north by Avenue S, on the west and south by undeveloped mountainous land, and several rural single-family residences and small farms to the east.

The Project site consists of ridges with moderately steep slopes and canyons that vary in orientation throughout the site and a northeast trending valley. There are several unimproved dirt roads that crisscross the Project site with unofficial entrances to the Project site from Avenue S and from the various residential dirt roads to the east. Many of the dirt roads are used by motor sport enthusiasts, hikers and horseback riders.

A utility easement and several transmission lines traverse across the southwest corners of both Area A and Area B of the Project site. These transmission lines are located within easement areas or on a parcel the City of Los Angeles Department of Water and Power owns. The transmission lines are located outside the Project development area. There also are two high-pressure gas lines along and under Avenue S, north of the Project site.

Topography and Geology

The Project site consists of a generally north-south trending valley area. The north end of the Project site is within the broad valley floor. The south end is within the steep hillside of a generally east-west trending ridgeline. Elevations on the Project site range from approximately 1,940 feet to 3,400 feet above sea level.

The Project site is situated at the boundary between the Transverse Ranges and Mojave Desert Geomorphic provinces of California. The site is within the Sierra Pelona Mountains that are part of the San Gabriel Mountains.

The majority of the Project site is underlain by Mesozoic age metasedimentary rocks that consist primarily of the Pelona schist. Overlying the bedrock units are unconsolidated alluvial and colluvial deposits in the broader canyon areas.

Groundwater

The Project site is within the Antelope Valley groundwater basin. The upper, southern portion of the site is primarily in the recharge zone of this basin. The groundwater within the lower portion of the site is highly variable based on seasonal rainfall. It is indicated as within 30 feet of the ground surface in the lower central valley floor. The steady deep groundwater table is likely hundreds of feet below the ground surface. The geologic investigation of the Project site did not encounter any groundwater within site drainages to depths of approximately 90 feet and did not encounter surface water in the form of streams and/or seeps.

The California Geological Survey (Seismic Hazard Map, Ritter Ridge Quadrangle, 2003) has indicated a portion of the Project site is located in a zone of required investigation for liquefaction potential. This area includes the main south-to-north drainage. The State Seismic Hazards Zone Report 083 indicates that historically, the shallowest groundwater in this area ranges from 0 to 30 feet. The Geotechnical Review performed for the Project site did not encounter groundwater within the alluvium to depths in excess of 90 feet, but used a water level of 30 feet below existing grade in its evaluation of liquefaction potential of alluvial materials proposed to be left in place. Pacific Soils, Inc. performed a Probabilistic Seismic Hazard Analysis (PSHA) for use in evaluation of liquefaction hazard potential. The Geologic Review performed for the Project calculated that the (estimated) value for seismically induced settlement "...ranged from 1 to 3 inches under the assumed design earthquake..."

After a review of existing geotechnical and geologic data relative to the Project site and surrounding area, excavation of 28 exploratory bucket auger borings and 44 exploratory backhoe pits, advancement of 6 Cone Penetration Test soundings, laboratory testing of selected material samples collected from the borings, and a Seismic Refraction Survey, Pacific Soils Engineering, Inc. concluded "...the site is considered to be susceptible to liquefaction and seismic settlement because of grain size, grain type, and soil plasticity." Petra Geotechnical, Inc. (April 12, 2011) indicated its review of Pacific Soils Engineering, Inc.'s prior geotechnical reports enabled it to state "...we generally concur with the findings, conclusions, and recommendations of the previous work. The City of Palmdale Department of Public Works conditionally approved Pacific Soils Engineering, Inc.'s reports in a letter dated January 28, 2008, available at the City.

Faults

The Geotechnical Review performed for the Project site indicates that the Project site is not located within an Alquist-Priolo Earthquake (Special Studies) Fault Zone, as identified by the California State Division of Mines and Geology. In addition, no active faults have been mapped on the Project site. However, the Project site, like all of Southern California, is in a seismically active region. The San Andreas Fault traverses approximately 1.2 miles northeast of the Project site. The San Andreas Fault is considered the most significant earthquake threat in California. It is a strike-slip-type fault that has a maximum credible earthquake magnitude of 8.0 on the Richter Scale. This Fault has been the source of significant earthquakes in the past, including an 8+ magnitude earthquake at Fort Tejon in 1857 and an 8+ magnitude earthquake in San Francisco in 1906.

In addition, as stated previously, 47 faults or fault segments have been identified within a 60-mile radius of the Project site. Although no special hazard zones delineated by the 1972 Alquist-Priolo Special Studies Zone Act are located on the Project site, the Vincent Thrust transects the central portion of the Project site with an approximate east-west trend. However, the Vincent Thrust has remained inactive since the late Cretaceous/early-Tertiary period.

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Other faults that extend out of the San Andreas Fault at awkward angles in the Palmdale area that could experience movement include the following:

- *Garlock Fault* – The Garlock Fault is 28.8 miles northwest of the Project site and branches off the San Andreas Fault north of Lancaster. This Fault defines the Antelope Valley’s northern boundary and extends 200 miles northeast from Castaic Lake through the Tehachapi Mountains.
- *White Wolf Fault* – The White Wolf Fault Zone is located approximately 50 miles northwest of the Antelope Valley area. This fault zone originates west of the Interstate 5 and Interstate 99 junction and continues for approximately 50 miles.
- *Sierra Madre (San Fernando) Fault* – The Sierra Madre Fault Zone is comprised of a series of north-tipping, reverse faults located approximately 35 miles south of Lancaster. This Fault Zone is approximately 40 miles southwest of the Project site.
- *Sierra Nevada (Owens Valley) Fault* – The Sierra Nevada Fault Zone extends 200 miles northeast from Castaic Lake through the Tehachapi Mountains and is a northeast-trending fault system. The nearest point to the Palmdale area is approximately 30 miles northwest of Quartz Hill.
- *Cemetery Fault, Nadeau Fault, Littlerock Fault, and Punchbowl Fault* – These four subsidiary faults surround the Antelope Valley. All the faults are active branches of the San Andreas Fault. Movement on the San Andreas Fault may activate one or all of these faults.

There are three common forms of geologic hazards related to earthquakes that could potentially affect the Project site: ground rupture, ground shaking and ground failure. The Geotechnical Review conducted for the Project site indicates the Planned Development Plan prepared for the Project “...has been developed to minimize hazards associated with hillside development” as discussed below.

Although not located in an Alquist-Priolo Earthquake Fault Zone and no active faults have been mapped directly on the Project site, the site is in a seismically active part of California. Therefore, a FRISKSP probabilistic free-field peak ground acceleration assessment was conducted for the Project site. A common acceptable level of risk is the statistical chance that a certain acceleration will have a 10 percent probability of being exceeded in a 50-year period. The FRISKSP assessment found the average peak ground acceleration to be 0.85 g. Thereby, moderate to strong ground motions from future regional earthquakes could occur during the life of the Project.

Records Review

Carlin Environmental Consulting, Inc. and Environmental Data Resources, Inc. conducted a thorough review of properties located in relatively close proximity to the Project site that historically or currently have used, stored, spilled or leaked hazardous chemicals. In addition, the proposed Project site “was not listed in any of the databases searched...” The closest listed site with hazardous materials exposure is the Antelope Valley Landfill, which is within one mile from the farthest northern boundary of the Project site. More specifically, the Antelope Valley Public Landfill and Recycling Center is a Class III landfill that accepts construction, demolition, industrial, inert mixed municipal, agricultural, green materials, and non-hazardous solid waste. The Landfill, which is located on the northern side of the San Andreas Fault and thereby acts as a major groundwater barrier, is classified as having a minor threat to the water quality of the area. Therefore, the Phase I Environmental Site Assessment prepared for the Project site indicates “...it is unlikely that any contamination related to landfill activities would have any significant impact on the

subject site which is up-gradient and more than 300 feet from the landfill.”

The Landfill was also listed on the Leaking Underground Storage Tank list. Currently, the case is listed as “Completed - Case Closed February 3, 2015.” The Landfill remains an active facility. Environmental issues remain pertaining to the active Landfill and its associated activities including the detection of chemicals of concern in the groundwater which requires monitoring.

In a previous Phase I report, two nearby sites within one-quarter mile of the Project site were listed as Registered Underground Storage Tank sites. However, these sites were not listed in Environmental Data Resources, Inc.’s current Radius Report nor on the State Water Resources Control Board’s online data management system called GeoTracker. Therefore, it is Carlin Environmental Consulting, Inc.’s opinion that “...these nearby sites did not pose a threat to the Project site.”

Potential Sources of Hazardous Substances

According to the Phase I Environmental Site Assessment conducted for the Project site, the following is a list of potential sources of hazardous substances and whether they may or may not be present on the Project site:

- *Underground Storage Tanks* – No evidence, previously documented or during the Project site investigation of underground storage tanks historically or currently at the Project site.
- *Aboveground Storage Tanks and Drums* – No evidence observed of aboveground storage tanks or drums historically or currently stored on the Project site.
- *Sumps, Clarifiers, Pools and Pits* – No evidence of the presence of sumps, clarifiers, pools or pits observed or documented found during investigation.
- *Stressed Vegetation* – Vegetation on the Project site does not appear to be unnaturally stressed.
- *Stained Soil or Pavement* – No stained soil was observed during on-site investigation. No pavement was observed. In the event-stained soil is encountered during future activities, the soil should be evaluated and properly removed.
- *Solid Waste* – No observation of any activity on the Project site or review of any documented evidence that suggested active generation of solid waste at the Project site. Only one area in the center portion of the Project site was observed to have accumulated some miscellaneous waste/debris that was illegally dumped. Dumped items included wood, clothing, small furniture, etc., which do not pose any environmental threat although they should be properly removed during future Project development.
- *Waste Water* – No observation of any current activities of waste water being generated, stored or used at the Project site.
- *Petroleum Products* – No observation of evidence, current or historical, of the use, generation, or storage of petroleum products on the Project site. This is not a recognized environmental condition. The several abandoned vehicles found on the Project site noted in a previous Phase I report had been removed.

- *Other Chemicals* – No observation of evidence, current or historical, of the use, generation, or storage of any other chemicals on the Project site. The previous owner of the Project site removed such chemicals according to protocol. This is not a recognized environmental condition.
- *Pesticides and Herbicides* – Review of historical aerial photographs substantiates that the majority of the Project site has historically been undeveloped. The Phase I Environmental Site Assessment prepared for the Project site states that “...it is unlikely that any pesticides or herbicides have been applied onsite. Portions of the Project site were used for agriculture in the past. However, no evidence of hazardous substances was found on the Project site during preparation of a Phase I Environmental Site Assessment. In addition, agricultural activities in the surrounding areas are limited in nature and it is unlikely that pesticides and herbicides were aerially dispersed near the Site.”
- *Radon* – According to California Radon Maps and Environmental Protection Agency testing data, the Project site is rated Zone 2: Predicted average indoor radon screening levels from two to four picocuries per liter (pCi/L) and therefore Carlin Environmental Consulting, Inc. “...recommends no further investigative activities regarding this matter.”
- *PCBs* – No PCB-containing materials or machinery were present on the Project site during Carlin Environmental Consulting, Inc.’s site investigation.
- *Asbestos* – Carlin Environmental Consulting, Inc. did not observe any structures on the Project site that could be a potential source of asbestos contamination, and “...does not recommend any further investigation into the matter and does not consider this issue to be a recognized environmental condition.”
- *Lead Based Paint and Heavy Metals* – A previous Phase I investigation observed that limited areas of the Project site had been used for target practice. In 2004, Carlin Environmental Consulting, Inc. conducted a limited subsurface investigation that involved collecting soil samples in the areas most likely to have lead contamination and tested these samples in a certified laboratory. The current Phase I Environmental Site Assessment states “in general, the laboratory testing did not indicate the presence of lead above hazardous waste limits.” Therefore, Carlin Environmental Consulting, Inc. “...does not recommend any further investigation into the matter and does not consider this issue to be a recognized environmental condition.”
- *Storm Water Runoff* – No observation of any storm water runoff, which generally flows in the canyons and out to Anaverde Creek.
- *Neighboring Properties* – The only neighboring property with possible environmental concerns is the Antelope Valley Landfill.
- *Landfills* – The Antelope Valley Landfill is located within one mile of the Project site. The Landfill is a Class III Landfill that accepts solid non-hazardous waste. It is listed for a leaking underground storage tank and potential contaminated groundwater. Due to the distance from the Project site, subsurface geologic conditions, and its downgradient from the Project site, it is unlikely that contamination from the Landfill area has migrated to the Project site. Carlin Environmental Consulting, Inc. does not consider this to be a recognized environmental condition.

- *Oil Wells* –Based on a review of a current California Division of Oil, Gas and Geothermal Resources (DOGGR) oil well location map, two oil wells, Raymond D. Weller and Silver Leaf Oil Company’s “Realty Title Co.,” have existed near the northwestern boundary of the Project site. Both wells are reported as abandoned and plugged dry holes in 1950. Carlin Environmental Consulting, Inc. reviewed records for the wells online. The Raymond D. Weller well is located approximately 1,300 feet south and 1,900 feet west of the northeastern corner of Tovey Avenue and Avenue S, very close to the northern boundary of the Project site. Available records indicated this well was not plugged; rather, it was left open for water well usage by the property owner at the time.
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- The Silver Leaf Oil Company well is located approximately 1,600 feet south and 1,900 feet west of the northeastern corner of Tovey Avenue and Avenue S. Available records indicated that this well was abandoned, filled in and a 20-foot-thick cement plug was set at the surface and covered with a steel plate. A site investigation at the time did not note any steel plate. The well “appears to be located within the Project site boundary.” The well is not in use.
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The previous Phase I Assessment of the Project site noted that “it may be required to re-abandon the wells to current DOGGR standards. Attempts should be made to determine the precise location of the wells to ensure the safety of any future inhabitants of the area.” The term “dry hole” merely means that conditions in the hole were not found to be economically suitable for oil and/or natural gas production. Therefore, Carlin Environmental Consulting, Inc. states that “it is possible that oil and gas were found in any dry hole. Thus, it will be necessary to assure that these former oil exploration holes are not the source of a hazard to future site inhabitants.” Therefore, as provided in the Mitigation Measures section below, “...a site plan review should be requested from DOGGR to determine if any re-abandonment work or mitigation is necessary.”

According to Carlin Environmental Consulting, Inc.’s current Phase I Environmental Site Assessment, there is no documented evidence that conditions of the two wells identified in the previous Phase I site assessment conducted for the Project site have changed. Therefore, Carlin Environmental Consulting, Inc.’s “...recommendation remains unchanged.”

4.9.2 ***REGULATORY FRAMEWORK***

Federal Regulations

Federal Toxic Substances Control Act of 1976 and the Resource Conservation and Recovery Act of 1976

The Federal Toxic Substances Control Act of 1976 and the Resource Conservation and Recovery Act of 1976 created a program administered by the United States EPA for regulation of generation, transport, treatment, storage and disposal of hazardous waste. Congress amended the Recovery Act in 1984 by passing the Hazardous and Solid Waste Act, which affirmed and extended the “cradle-to-grave” system of regulating hazardous wastes and which prohibited use of particular techniques for disposal of some hazardous wastes. Congress also enacted the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) – the “Superfund” – on December 11, 1980. CERCLA provided broad federal authority to respond directly to releases or threatened releases of hazardous substances that may endanger public health or the environment. CERCLA also established requirements pertaining to closed and abandoned hazardous waste sites, provided for liability of persons responsible for releases of hazardous

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waste at those sites, and established a trust fund to provide for cleanup of hazardous waste sites when no responsible party could be identified. CERCLA further enabled revision of the National Contingency Plan, which provided guidelines and procedures needed to respond to releases and threatened releases of hazardous materials, and established the National Priorities List. The Superfund Amendments and Reauthorization Act amended CERCLA on October 17, 1986.

Resource Conservation and Recovery Act

The Resource Conservation and Recovery Act (RCRA) gives the EPA authority to control hazardous waste from the “cradle-to-grave.” This includes generation, transport, treatment, storage and disposal of hazardous waste. RCRA also establishes a framework for management of non-hazardous solid wastes. The 1986 amendments to RCRA enabled the EPA to address environmental problems that could result from underground tanks storing petroleum and other hazardous substances. The Federal Hazardous and Solid Waste Amendments are the 1984 amendments to RCRA that focused on waste minimization and phasing out land disposal of hazardous waste and corrective action for releases. Some of the other mandates of this law include increased enforcement authority for EPA, more stringent hazardous waste management standards, and a comprehensive underground storage tank program.

Hazardous Materials Transportation Act

The Hazardous Materials Transportation Act (HMTA) of 1975 empowered the Secretary of Transportation to designate as hazardous material any “particular quantity or form” of a material that may pose an unreasonable risk to health and safety or property. The HMTA preempts state and local governmental requirements that are inconsistent with the statute, unless that requirement affords an equal or greater level of protection to the public than the HMTA requirement.

Hazardous Materials Transformation Uniform Safety Act of 1990

The Hazardous Materials Transformation Uniform Safety Act clarifies the maze of conflicting state, local and federal regulations. This requires the Secretary of Transportation to promulgate regulations for the safe transport of hazardous material in intrastate, interstate, and foreign commerce. The Secretary also retains authority to designate materials as hazardous when they pose unreasonable risks to health, safety or property. The statute includes provisions to encourage uniformity among different state and local highway routing regulations, to develop criteria for issuance of federal permits to motor carriers of hazardous materials, and to regulate transport of radioactive materials.

Occupational Safety and Health Act

Congress passed the Occupational and Safety Health Act (OSHA) to ensure worker and workplace safety. The Congressional goal was to make sure employers provide their workers a place of employment free from recognized hazards to safety and health, such as exposure to toxic chemicals, excessive noise levels, mechanical dangers, heat or cold stress, or unsanitary conditions. To establish standards for workplace health and safety, OSHA also created the National Institute for Occupational Safety and Health as the research institution for OSHA.

State Regulations

California State Department of Transportation

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The California State Department of Transportation (Caltrans) regulates transport of hazardous materials and explosives through Palmdale. Transporters of hazardous waste are required to be certified by Caltrans and manifests are required to track the hazardous waste. The Los Angeles County Fire Department is responsible for responding to hazardous materials spills and accidents at all locations within the City of Palmdale except at the United States Air Force (USAF) Plant 42, where the Air Force Fire Department is the corresponding responsible agency.

California State Division of Oil, Gas and Geothermal Resources

The California State Division of Oil, Gas and Geothermal Resources (DOGGR) is the State agency responsible for supervising drilling, operation, maintenance, plugging and abandonment of oil, gas and geothermal wells. This Division's regulatory program promotes wise development of oil, natural gas and geothermal resources in California through sound engineering practices, pollution prevention, and assurance of public safety. The DOGGR recommends avoidance of building over or near plugged and abandoned wells or re-plugging wells using methods that comply with the Division's standards.

California State Department of Toxic Substances Control

The California State Department of Toxic Substances Control (DTSC) is responsible for restoration, protection and enhancement of the environment as well as ensuring public health, environmental quality and economic vitality through regulation of hazardous waste treatment and disposal, conducting clean-ups of toxic spills, and developing and promoting pollution prevention methods. The DTSC implements programs that oversee clean-ups, prevent toxic materials releases by ensuring waste is properly generated, handled, transported, stored and disposed. In addition, the DTSC enforces laws regulating such actions, promotes pollution reduction, encourages recycling and reuse, conducts toxicological evaluations, and involves the public in decision-making. Furthermore, the DTSC oversees citing and clean-up of schools.

California Government Code (Section 65962.5)

The California Government Code (Section 65962.5) requires the DTSC, State Department of Health Services, the State Water Resources Control Board, and the California Integrated Waste Management Board to assemble and update lists of hazardous waste sites and hazardous waste properties within California on an annual basis. The California Secretary for Environmental Protection distributes the annually prepared lists to each city and county in which such sites are located. Prior to approval of a development project by a jurisdictional lead agency, an Applicant must consult the lists to determine that a Project is not listed.

California Code of Regulations, Titles 22 and 26

A variety of California Code of Regulations (CCR) titles address regulations and requirements for generators of hazardous waste. Title 22 contains detailed compliance requirements for hazardous waste generators, transporters, and facilities for treatment, storage and disposal. According to RCRA, California is a fully-authorized state and therefore most regulations have been duplicated and integrated into Title 22. Title 22 regulates a wider range of waste types and waste management activities than does RCRA.

To aid the regulated community, California has compiled hazardous materials, waste, and toxics-regulated regulations from CCR Titles 3, 8, 13, 17, 19, 22, 23, 24 and 27 into one consolidated listing (CCR Title 26 [Toxics]). However, the hazardous waste regulations are still commonly referred to collectively as "Title 22." CCR Title 26 regulates transportation of hazardous materials and wastes. The California Highway Patrol and Caltrans enforce federal and State regulations and respond to hazardous materials transport

emergencies. Emergency responses are coordinated as necessary between federal, State and local governmental authorities and private entities through a State-mandated Emergency Response Plan.

California State Occupational Safety and Health Administration and the California State Plan

The California State Occupational Safety and Health Administration (Cal/OSHA) is the primary State agency responsible for worker safety in handling and use of chemicals in the work place. Cal/OSHA standards are generally more stringent than federal regulations. Employers are required to monitor worker exposure to listed hazardous substances and to notify workers of exposure (Title 8 of the California Code of Regulations, Sections 337-340). Cal/OSHA regulations specify requirements for employee training, availability of safety equipment, accident prevention programs, and hazardous substance exposure warnings.

California Hazardous Waste Control Law

The Hazardous Waste Control Law is the primary hazardous waste statute in California. This law implements RCRA as a “cradle-to-grave” waste management system in the State. The law specifies that generators have the primary duty to determine whether their wastes are hazardous and to ensure proper management of their wastes. In addition, the law establishes criteria for reuse and recycling of hazardous wastes used or reuse as raw materials. The law exceeds federal requirements by mandating source reduction planning and broadening requirements for permitting facilities that treat hazardous waste, and regulates a number of waste types and waste management activities not covered by federal law.

Local Regulations

Los Angeles County Fire Department Health and Hazardous Materials Division

The Los Angeles County Fire Department Health and Hazardous Materials Division is the agency responsible for regulating and monitoring hazardous material use and storage in all unincorporated areas and most incorporated areas within Los Angeles County. Its mission is to protect the public health and the environment throughout Los Angeles County from accidental releases and improper handling, storage, transport and disposal of hazardous materials and wastes through coordinated efforts of inspections, emergency response, enforcement and site mitigation oversight. This Fire Department Division is a Certified Unified Program Agency responsible for administering hazardous materials programs within Los Angeles County.

City of Palmdale General Plan (Palmdale 2045)

A General Plan Consistency Assessment of Palmdale 2045 Goals and Policies relevant to the Quail Valley Project Hazards and Hazardous Materials analysis is contained in Appendix A of this EIR.

Safety Element

The Palmdale 2045 Safety Element is intended to guide development by reducing levels of risk posed by natural and man-made hazards within the City. The Safety Element provides an outline of natural and man-made hazards that will affect existing development and provides guidelines for protecting residents from injury and death. The Safety Element also identifies present conditions and public concerns, establishes policies and standards for improved public safety, and plans for protection from potential disasters. This Element serves the following purposes focused on minimizing physical harm, social disruptions, and

economic disruptions.

- The Safety Element fulfills the California State Planning and Zoning Law and State Government Code Section 65302(g) regulations as a State mandated element of the General Plan.
- The Safety Element informs the public of City public safety goals, objectives and policies for development and provides a comprehensive risk management program to serve as a guide for day-to-day decisions of City staff.
- The Safety Element evaluates the seismic, flood, geologic, wildfire and urban fire hazards in the City of Palmdale in addition to aircraft accident potential, hazardous materials and crime. In addition, the Element seeks to eliminate or reduce risks to public safety through planning for prevention of hazardous situations and for provision of emergency services.

Policy SE-1.5:	Local Hazard Mitigation Plan. Implement the policies and mitigation strategies outlined within the Palmdale Local Hazard Mitigation Plan.
Goal SE-2:	Minimize Public Health, Safety, and Welfare Impacts Resulting from Wildfire Hazards.
Policy SE-2-1:	Critical Facilities. Prohibit new public or critical facilities in Very High Fire Hazard Severity Zones, except when other options do not exist.
Policy SE-2.3:	Wildland Development. Require that developments located in VHRSZ incorporate and enforce standards for construction, including a fuel modification program (i.e., brush clearance, planting of fire-retardant vegetation) to reduce the threat of wildfires, accounting for any increased risk related to climate change.
Policy SE-2.4:	Landscaped Buffer Zones. Provide fire-resistant landscaped buffer zones between high-risk fire hazard areas and urban development with fire clearance located on private land and maintained by the property owner(s).
Policy SE-2.5:	Maintain Firesafe Zones. Require property owners to clear brush and high fuel vegetation and maintain firesafe zones (a minimum distance of 30 feet from the structure or to the property line, whichever is closer) to reduce the risk of fires. For structures located within a Very High Fire Hazard Severity Zone, the required brush clearance distance is 200 feet from structures to the property line.
Policy SE-2.10:	Water System Requirements. Require all new development to be served by a water system that meets applicable fire flow requirements.
Policy SE-2.12:	Fire Protection Plans. Require fire protection plans for all new development in the VHFSZ.
Goal SE-3:	Minimize Risks Associated with the Transport, Storage, Use, and Disposal of Hazardous Materials.
Policy SE-3.3:	Soil and Groundwater Cleanup. Require clean-up of soil and/or groundwater containing hazardous materials exceeding regulatory action levels to the

satisfaction of the agency having jurisdiction prior to granting permits for new development.

- Goal SE-5:** **Minimize Damage from Catastrophic Failure of Infrastructure.**
- Policy SE-5.1:** **Evaluate Inundation Hazards.** As appropriate, evaluate inundation hazards related to the potential rupture of the following when reviewing development proposals: California Aqueduct, Palmdale Dam, Littlerock Dams and/or proposed basins.
- Goal SE-6:** **Minimize Impacts to Public Safety and Property Resulting from Aircraft Accidents.**
- Policy SE-6.1:** **Consistent Development with Department of Defense.** Require all development to be consistent with Department of Defense regulations as outlined in the Air Force Plant 42 Air Installation Compatibility Use Zone (AICUZ) Report and comply with applicable FAA regulations that affect development in the Accident Potential Zones.
- Policy SE-6.2:** **Linear Corridor in Accident Potential Zones.** Through the design review process, ensure that new buildings are located in a manner that will promote clear linear corridors through the developed area in any Accident Potential Zones.
- Goal SE-7:** **Ensure Safe Evacuation of Residents in the Event of an Emergency Requiring Evacuation.**
- Policy SE-7.5:** **Evacuation in VHFSZ and HRSZ.** Require developers proposing development on properties within VHFSZ and HFSZ areas to evaluate and provide adequate evacuation routes.
- Goal SE-8:** **Improve Disaster Preparedness in the Event of an Emergency.**

4.9.3 *THRESHOLDS FOR DETERMINING SIGNIFICANCE*

According to Appendix G of the CEQA Guidelines, a project will normally have a significant adverse environmental impact due to hazards and hazardous materials if it would:

- Threshold HAZ-1** Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials.
- Threshold HAZ -2** 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.
- Threshold HAZ -3** Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school.

- Threshold HAZ -4** 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, create a significant hazard to the public or the environment.
- Threshold HAZ -5** 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 result in a safety hazard for people residing or working in the project area.
- Threshold HAZ -6** Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan.
- Threshold HAZ -7** Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires.

4.9.4 ENVIRONMENTAL IMPACT

Impact Analysis

- Threshold HAZ-1** Would the Project create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?

Less Than Significant Impact.

A hazardous material is any material that because of its quality, concentration or physical or chemical characteristics, poses a significant potential hazard to human health or safety or to the environment. Large users and transporters of hazardous materials are monitored and regulated by the Federal EPA and other Federal, State and County regulatory agencies, such as the State Department of Toxic Substance Control, the Los Angeles County Department of Health and Hazardous Materials and the Los Angeles County Fire Department.

Project Development

Small amounts of hazardous materials used during Project development for tasks such as rock blasting, grading, and construction will be transported to and used on the Project site. These materials are also likely to be stored on the Project site since Project development will occur over as many as 13 phases. All construction-related materials, including any hazardous materials, will be required to be used, handled, and transported in compliance with federal, State and County requirements, and will be subject to oversight by the Los Angeles County Fire Department and provisions of the Palmdale 2045 Safety Element. Adherence to these regulatory requirements would ensure any potential impacts related to the use or storage of hazardous materials associated with Project development would be less than significant.

Project Operation

Operation of the Project involves the occupation of single-family, estate and potentially multi-family residences, as well as use of Project recreational amenities. Residential uses do not require storage or use of large quantities of acutely hazardous materials. Rather, future residents generally will keep and use small amounts of household maintenance and cleaning materials and landscape maintenance products. Use of such products would not result in a significant risk or hazard to the public health and safety or the

environment. Therefore, the resultant level of impact would be less than significant.

Off-Site Transportation of Hazardous Materials and Waste

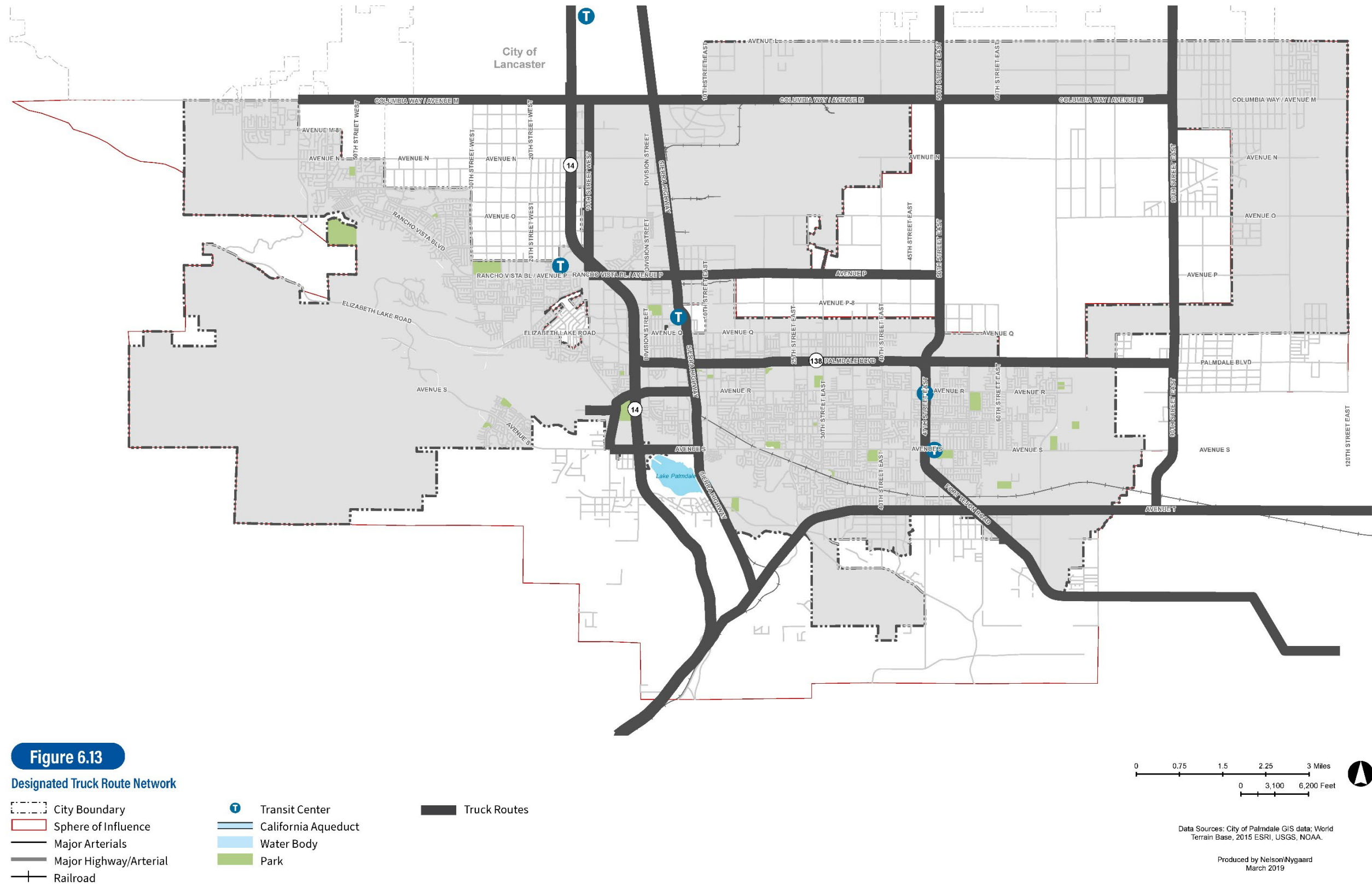
As noted in the Palmdale 2045, the City Ordinance regulates vehicles exceeding 10,000 pounds gross weight and prohibits their use on undesignated City streets, except when delivering or otherwise servicing uses on such streets. Although City streets and Los Angeles County areas are not generally designated as hazardous materials/waste transportation routes, the City of Palmdale or the County of Los Angeles may grant a permit for such transport on a case-by-case basis. The Caltrans regulates the transport of hazardous materials and explosives through the City of Palmdale. Caltrans must certify transporters of hazardous waste; hazardous manifests are required to be tracked by Caltrans. The Los Angeles County Fire Department is responsible for responding to hazardous materials accidents within the City of Palmdale, except at USAF Plant 42.

Due to short-term risks to public health and the environment associated with hazardous waste management during transport of waste, specific Commercial Hazardous Wastes Shipping Routes are designated to minimize the distance wastes are transported and the proximity of the transport to vulnerable land uses. The following **Exhibit 4.9-1 (Designated Truck Routes)** indicates the two designated truck routes closest to the Project site are Avenue S from Tierra Subida Avenue to Sierra Highway, and State Route 14 through the City limits, which are at least 2,500 feet from the Project site. Due to this distance, the resultant level of impact due to the potential risk or hazard to the Project's occupants or environment would be less than significant. Figure 4.9-1 below depicts designated truck routes, as indicated in the Palmdale 2045 Circulation and Mobility Element.

Vehicles that weigh more than 10,000 pounds are required to use the following truck routes:

- 10th Street West from Rancho Vista Boulevard/Avenue P to Columbia Way
- Sierra Highway from SR-14 to Columbia Way (Avenue M)
- 50th Street East from Palmdale Boulevard to Avenue L
- Columbia Way (Avenue M) from 70th Street West to 90th Street East
- Rancho Vista Boulevard/Avenue P from 10th Street West to 90th Street East
- City Ranch Road, Rayburn Road, and Avenue R from the Palmdale Landfill to Sierra Highway
- Avenue S from Tierra Subida Avenue to Sierra Highway
- Pearblossom Highway from Sierra Highway to Fort Tejon Road (State Route 138)
- Avenue T from Fort Tejon Road (State Route 138) to 90th Street East
- Palmdale Boulevard from State Route-14 to 90th Street East
- State Route-14 through the City limits
- Tierra Subida Avenue from Avenue S to Rayburn Road
- Fort Tejon Road (State Route 138) from 75th Street East to 47th Street East
- 47th Street East (State Route 138) from Fort Tejon Road to Palmdale Boulevard
- 90th Street East from Avenue T to Avenue L

EXHIBIT 4.9-1 – EXISTING DESIGNATED TRUCK ROUTES



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Environmental Impacts – Hazards and Hazardous Materials

Threshold HAZ-2 Would the Project 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?

Less Than Significant Impact with Mitigation Incorporated.

Project development will involve tasks such as grading with a minimal potential for blasting, and general construction to develop 730 residential units on the approximately 878.1-acre property. As indicated in **Threshold HAZ-1** above, small amounts of hazardous materials (e.g., paint, weed control) are generally used during the development of a residential project. In addition, households will likely hold and use some hazardous materials for cleaning and landscape maintenance. It is unlikely that during Project operation the small amounts of household and landscape maintenance products would result in accidental explosions or releases of hazardous substances. Compliance with the City of Palmdale emergency response plan requirements will ensure any impact related to a reasonably foreseeable upset and accident involving the release of hazardous materials into the environment will be less than significant.

The Project site has been largely vacant, except for existing utility facilities and dirt roadway access. Based on a review of a current California Division of Oil, Gas and Geothermal Resources (DOGGR) oil well location map, two oil wells, Raymond D. Weller and Silver Leaf Oil Company's "Realty Title Co.," have existed near the northwestern boundary of the Project site. Both wells are reported as abandoned and plugged dry-holes in 1950. Carlin Environmental Consulting Inc. reviewed records for the wells online. The Raymond D. Weller well is located approximately 1,300 feet south and 1,900 feet west of the northeastern corner of Tovey Avenue and Avenue S, very close to the northern boundary of the Project site. The Project site is adjacent to Special Studies Zones for the Nadeau Fault and the San, Andreas Fault. The Nadeau Fault is located approximately 500 feet north of the Project site and is a branch of the San Andreas Fault that is approximately 3,000 feet north of the Project site. These faults are considered active. Hazardous materials may be released into the environment and exposure to strong shaking may result from seismic activity. However, with implementation of **Mitigation Measures MM-HAZ-1, MM-HAZ-2, and MM-HAZ-3** this impact will be reduced to a less than significant level. These Mitigation Measures would require removal of subsurface soil contamination that may be discovered during Project grading activities, California Department of Oil, Gas and Geothermal Resources review of precise locations of oil wells, and notification of any minor spills and casing/slugs from spent ammunition.

Threshold HAZ-3 Would the Project emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?

No Impact.

No existing or proposed schools are located within one-quarter mile of the proposed Project. The nearest school is Anaverde Hills School, which is located over three-quarters of a mile northwest of the Project site. Therefore, Project development and operation would not emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school. No impact would result.

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Threshold HAZ-4 Would the Project 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, create a significant hazard to the public or the environment?

Less Than Significant Impact with Mitigation Incorporated.

The Project site is not included on a list of hazardous materials sites. The Antelope Valley Public Landfill, a Class III Landfill, is located approximately one-half mile from the Project site. It is not upgradient from the Project site. No leaks have been reported for the 380-gallon underground storage tank on the Landfill site.

However, as previously indicated, based on a review of a current California Division of Oil, Gas and Geothermal Resources (DOGGR) oil well location map, two oil wells, Raymond D. Weller and Silver Leaf Oil Company's "Realty Title Co.," have existed near the northwestern boundary of the Project site. Both wells are reported as abandoned and plugged dry-holes in 1950. Carlin Environmental Consulting, Inc. reviewed records for the wells online. The Raymond D. Weller well is located approximately 1,300 feet south and 1,900 feet west of the northeastern corner of Tovey Avenue and Avenue S, very close to the northern boundary of the Project site. Available records indicated this well was not plugged; rather, it was left open for water well usage by the property owner at the time. It was reported that a steel plate was welded to the top of the casing, which extends three feet above the ground surface. However, the site investigation did not note this condition.

The Silver Leaf Oil Company well is located approximately 1,600 feet south and 1,900 feet west of the northeast corner of Tovey Avenue and Avenue S. Available records indicated that this well was abandoned and filled in and a twenty-foot-thick cement plug was set at the surface and covered with a steel plate. A site investigation at the time did not note any steel plate. The well "appears to be located within the [Project] site boundary."

The previous Phase I Assessment of the Project site noted that "it may be required to re-abandon the wells to current DOGGR standards. Attempts should be made to determine the precise location of the wells to ensure the safety of any future inhabitants of the area." The term "dry hole" merely means that conditions in the hole were not found to be economically suitable for oil and/or natural gas production. Therefore, Carlin Environmental Consulting, Inc. states that "it is possible that oil and gas were found in any dry hole. Thus, it will be necessary to assure that these former oil exploration holes are not the source of a hazard to future site inhabitants." Therefore, per the recommendations provided in **Mitigation Measure MM-HAZ-3** below, "...a site plan review should be requested from DOGGR to determine if any re-abandonment work or mitigation is necessary."

According to Carlin Environmental Consulting, Inc.'s current Phase I Environmental Site Assessment, there is no documented evidence that conditions of the two wells identified in the previous Phase I site assessment conducted for the Project site have changed. Therefore, Carlin Environmental Consulting, Inc.'s "...recommendation remains unchanged." The resultant level of impact after Mitigation implementation will be less than significant.

Threshold HAZ-5 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?

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The Project site is located approximately three miles southwest of the Palmdale Regional Airport. The Project site is located outside the Airport Influence Area (as well as outside the 70 and 65 CNEL contour areas). Therefore, the Project will not result in a safety hazard for people working in the Project area and no significant impact would occur.

Threshold HAZ-6 Would the Project impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?

Less Than Significant Impact.

Project development and operation would not impair or physically interfere with any City-adopted emergency management plan or evacuation plan. Designated evacuation routes and emergency ingress and egress would not be obstructed by Project development or operation. Project development will include construction of the following off-site improvements:

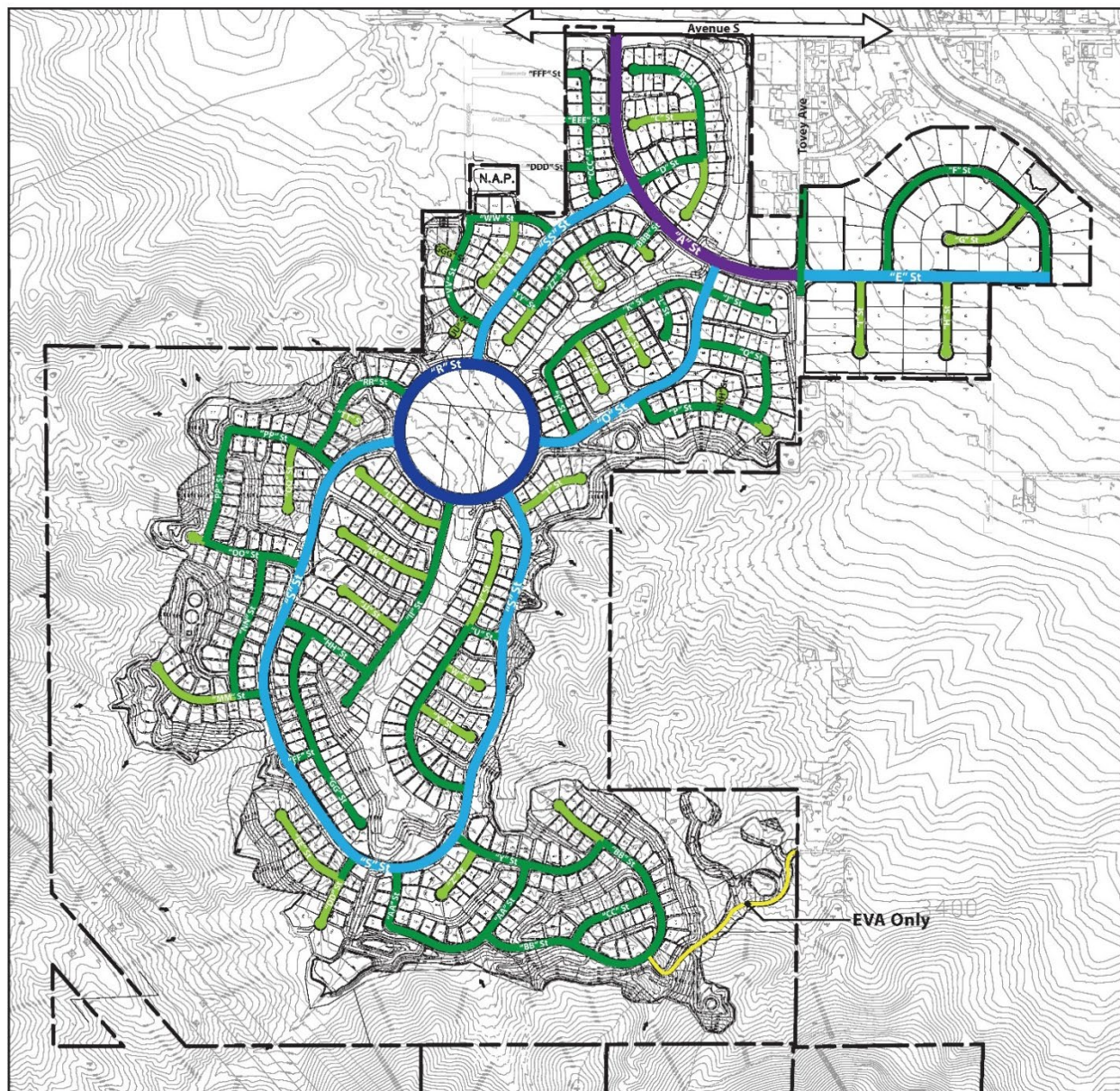
Exhibit 4.9-2 (Circulation Plan) depicts access points, roadways internal to the Project, and vehicular gates within the Project site. Primary ingress and egress to the Project will be via a new signalized intersection at Avenue S, approximately 1.2 miles west of SR-14. Project development will include modification of the median strip of Avenue S to accept a left-turn lane from westbound lanes. The Project will include a roundabout along Tovey Avenue to slow traffic entering and leaving the Project. The internal roadway network serving the Project will be comprised of private streets. The Project street network consists of a series of curvilinear connector and local streets and traffic calming roundabouts.

Construction of these Project Design Features will facilitate emergency response to, and evacuation from, the Project site and the Project vicinity. Therefore, impacts would be less than significant.

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EXHIBIT 4.9-2 – CIRCULATION PLAN



Legend

Major Arterial	64' Connector Street	EVA Only
92' Connector Street	60' Local Street	
79' Connector Street	58' Cul-de-Sac	

Threshold HAZ-7 Would the Project expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?

Less Than Significant Impact with Mitigation Incorporated.

The majority of the Project site is located within an August, 2018-identified CalFire-designated High Fire Hazard Safety Zone and within a State Responsibility Area. Much of the Project site is located in a Very High Fire Hazard Safety Zone as depicted on the Los Angeles online mapping system. Small portions of the Project site are located within a designated High Fire Hazard Area, as depicted on the Los Angeles County online mapping system.

Project development will include construction of water tanks that will enhance water supply capabilities on the Project site and in the Project area through the tanks gravity system. This system is superior to the existing hydraulic pump system under which the existing upper Tovey Avenue and the related existing fire hydrants are served.

Development of the Proposed project would reduce the amount of wildland fuel on the project site and replace it with residential homes. Therefore, the risk of wildland fires would be reduced in this area. However, urban fires could pose a public safety threat, which are caused by faulty wiring or mechanical equipment, combustible construction materials, the absence of fire alarms and sprinkler systems, human accidents with appliances and equipment, and careless use of cigarettes and matches. The Los Angeles County Fire Department establishes standards for building design and construction requiring the provision of resources such as adequate water supply for firefighting, fire retardant construction, and minimum street clearances. The Los Angeles County Fire Department will require fire protection plans, greenbelts, special access roads, fuel modification zones, and non-combustible construction techniques, per current requirements. Compliance with these requirements and with the Palmdale 2045 policies would ensure the risk of exposure of people or structures, directly or indirectly, in combination with Project water system design and implementation of **Mitigation Measure MM-HAZ-4 (MM-WF-1)**, which requires submittal of a Fuel Modification Plan to the City for approval, would ensure Project development and Project operation impact related to risk of loss, injury or death involving fires would be reduced to a less than significant level.

Development on the LAFCO-approved non-Quail Valley properties proposed for annexation would require site-specific environmental analysis of potential impacts pertaining to CEQA-identified Hazards and Hazardous Materials topics for analysis. The non-Quail Valley areas within the overall annexation boundary include vacant lots, lots with existing housing, and the proposed Falcon Glen project area. As the Falcon Glen project is undergoing a separate approval process, the Hazard and Hazardous Materials impacts of that project will be addressed as part of that project review. The Falcon Glen property area is currently vacant land.

4.9.5 CUMULATIVE IMPACTS

The Project Applicant/Developer would be required to comply with all federal, State and County regulations that would ensure proper use, storage and disposal of hazardous substances that may be used during Project development tasks including rock demolition, grading, and construction. The Los Angeles County Fire Department and Los Angeles County Department of Environmental Health would exercise review and permitting requirements for any such use. In addition, other developments in the Project vicinity

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that propose construction with the potential for use, storage or transport of hazardous materials would be required to comply with applicable federal, State and County/City regulations and would be subject to further review of the County Fire Department and County Department of Environmental Health. As a result, the cumulative potential for the release of toxic substances or hazardous materials into the environment through accidents or due to routine transport, use or disposal of such materials would be reduced to a less than significant level.

No existing or proposed schools are located within one-quarter mile of the proposed Project. If any of the future projects located within the vicinity of the Proposed project is located within one-quarter mile of an existing or proposed school, those projects would be required to comply with all federal, State and County regulations to ensure Project development and operation would not emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste. Therefore, no cumulatively significant hazards/hazardous materials impact on any existing or future schools located within one-quarter mile of the Project site would result.

The Project site is not located on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5. However, no evidence of pesticides or herbicides was found on the Project site during investigation associated with production of the Phase I Environmental Assessment. In the event that hazardous materials are encountered beneath the ground surface during grading or construction activities, the materials would be handled and disposed of in accordance with regulatory requirements. Similarly, any future projects within the vicinity of the Project site that are on the list of hazardous materials sites would be required to have its hazardous materials handled and disposed of in accordance with regulatory requirements. Therefore, there are no cumulatively significant hazardous materials impacts associated with a listed hazardous materials site.

Project development and operation would not introduce any land use to the approximately 878.1-acre Project site that would conflict with the Palmdale Regional Airport Land Use Compatibility Plan. Any future project that is located within the vicinity of the Project site and within the vicinity of the Palmdale Regional Airport Land Use Compatibility Plan would have to comply with the Palmdale Regional Airport Land Use Compatibility Plan. Therefore, cumulatively considerable impacts pertaining to airport-related hazards would be less than significant. The Project site is not located within the vicinity of any private airstrips or helipads. Therefore, Project development does not have the potential to result in cumulatively significant impacts with such facilities.

The Project site does not contain any emergency facilities and does not serve as an emergency evacuation route. Project development would improve evacuation of the vicinity as needed by improving adjacent roadways. There is no potential for the Project to contribute to any cumulative impacts pertaining to an adopted emergency response plan or emergency evacuation plan.

The land south of the Project site is located within a Los Angeles County Very High Fire Risk Designation area. However, Project design strongly considers the future residents' safety. Required adherence to Los Angeles County and City of Palmdale construction and operation requirements will ensure that Project residents and structures will not be exposed to extreme dangers from wildland fires. The Project design assumes construction of multiple water reservoirs that will enhance water supply facilities in the area. In addition, as future projects within the Project's vicinity are developed, the amount of wildland fuel will decrease. Therefore, cumulative impacts due to wildland fires will be less than significant.

Development on the LAFCO-approved non-Quail Valley properties proposed for annexation would require site-specific environmental analysis of potential cumulative impacts pertaining to CEQA-identified Hazards and Hazardous Materials topics for analysis.

4.9.6 *LEVEL OF SIGNIFICANCE BEFORE MITIGATION*

Carlin Environmental Consulting, Inc.'s investigation of the Project site included a site investigation visit to observe existing conditions, review of federal, State and local databases, review of historical aerial and topographic maps, and review of available online regulatory databases. The following conclusions support a determination that the level of significance before mitigation is less than significant or that any identified potentially significant impact will be reduced to a less than significant level with implementation of identified Mitigation Measures MM-HAZ-1 through MM-HAZ-5 as identified in section 4.9.7 below.

- Unlike previous site investigations, no abandoned vehicles were observed during the site visit. One small collection of dumped materials was observed near the northern portion of the Project site, near Avenue S. The dumped material is considered a nuisance and “not a significant environmental concern.”
- Due to the inaccessibility of certain portions of the Project site, “it is unlikely that any significant quantities of illegally dumped materials are present in these portions. No hazardous materials were noted along these trails ... but because many of these trails have been in existence for more than fifty years, it is possible that materials that could pose a threat may have been disposed of at the Site sometime in the past.”
- Two historical oil wells are located near the northern boundary of the Project site. These wells were drilled and abandoned in 1950. Both were dry holes that did not produce any oil.
- “No other areas of concern were noted during CEC’s [Carlin Environmental Consulting, Inc.] inspection and review of records for the subject site. It is CEC’s opinion that the environmental findings of this investigation are relatively minor and although some relatively small volumes of soil contamination may be discovered during future development, specifically during grading activities, it is unlikely that any finding will be significant in volume.”

4.9.7 *MITIGATION MEASURES*

With incorporation of the following Mitigation Measures, the potential for all identified impacts will be reduced to a less than significant level.

MM-HAZ-1 – If evidence of subsurface soil contamination is discovered during future soil moving activities, the soil shall be properly removed from the Project site and transported to an appropriate off-site facility under the direction of a qualified environmental consulting firm.

MM-HAZ-2 – A site plan review should be requested from the California Division of Oil, Gas and Geothermal Resources to determine if any investigations, re-abandonment or mitigation is required. Documentation of the precise locations of the oil wells will be required as one of the initial steps in the

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abandonment/documentation process with the Division. It is likely the California Division of Oil, Gas and Geothermal Resources will require that the wells be re-abandoned to current standards.

MM-HAZ-3 – Soil technicians associated with future grading activities should be informed that minor spills could be discovered, as well as casing and slugs from spent ammunition. If any are observed, a properly experienced environmental consulting firm should be contacted to recommend appropriate action.

MM-HAZ-4 – Prior to issuance of any building permits, the Applicant/Developer shall submit a Fuel Modification Plan to the City of Palmdale Community Development Director and Public Works Director for review and approval in consultation with the Los Angeles Fire Department. The Fuel Modification Plan must be in substantial conformance with the City Council-approved Quail Valley Planned Development Fuel Modification Plan.

4.9.8 *LEVEL OF SIGNIFICANCE AFTER MITIGATION*

The level of impact of Project development and Project operation relating to Hazards and Hazardous Materials will remain less than significant after implementing the Mitigation Measures indicated in **Section 4.9.7 (Mitigation Measures)**.

4.10 Hydrology and Water Quality

Information for this section was derived from the following: City of Palmdale General Plan, "Palmdale 2045"; Los Angeles County General Plan 2035 (October 6, 2015); Stantec, "Hydrology Study for Tentative Tract Map No. 65813, City of Palmdale, County of Los Angeles," (October 26, 2006, revised September 23 2016, revised December 20, 2017, addendum September 24, 2018, update memorandum "Reference: Quail Valley Hydrology Study" October 30, 2023); Cannon, "SB610 Water Supply Assessment – Quail Valley Tentative Tract 65813" (December 4, 2019); Palmdale Water District, "Water Supply Assessment – Quail Valley Development Project," Letter December 18, 2019; Extension Letter May 3, 2022, Extension Letter October 17, 2023 ; and, the Quail Valley Planned Development Project plans.

The October 30, 2023 Stantec Memo referencing the earlier Quail Valley Hydrology Study states that the Hydrology Study (December 20, 2017) and the subsequent Addendum 1 "remain accurate with respect to the proposed Tentative Tract Map, dated 10/30/2023. Since 2018 only minor design updates have occurred for this project which do not adversely affect the findings of the Hydrology Study."

4.10.1 ENVIRONMENTAL SETTING

Existing Conditions

The Project site consists of a generally north-south trending valley area. The north end of the site is within the broad valley floor, and the southern end of the project site is located within the steep hillside of a generally east-west trending ridgeline. An unnamed intermittent stream trends north through the central portion of the Project site.

The California Aqueduct is located along the northeast boundary of the Project site, Anaverde Creek is located approximately 3,000 feet north of the site, and Lake Palmdale is located approximately one mile east of the site.

The Project site is located within the Antelope Valley groundwater basin. The upper, southern portion of the site is primarily in the recharge zone of this basin. The groundwater within the lower portion of the site is highly variable based on seasonal rainfall. It is indicated as within 30 feet of the ground surface in the lower central valley floor. The steady deep groundwater table is likely hundreds of feet below the ground surface.

4.10.2 REGULATORY FRAMEWORK

Federal Regulations

Clean Water Act

The Clean Water Act (CWA) was enacted in 1948 and was originally called the Federal Water Pollution Control Act. In 1972, it was substantially reorganized, expanded, and recognized as the "Clean Water Act." The CWA establishes the basic structure for regulating discharges of pollutants into the waters of the United States and regulating quality standards for surface waters. Under the CWA, the U.S. Environmental

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Protection Agency (EPA) has implemented pollution control programs such as setting wastewater standards for industry and water quality standards for all contaminants in surface water. The CWA made it unlawful to discharge any pollutant from a point source into navigable waters, unless a National Pollutant Discharge Elimination System (NPDES) permit is obtained. The U.S. EPA defines point sources as discrete conveyances such as pipes or man-made ditches.

The provisions of the CWA applicable to the proposed Project are as follows, which also apply to all construction sites of over one acre in size:

- CWA Section 401 requires federal agencies to obtain a Water Quality Certification from states, territories, and Indian tribes before issuing permits that would result in increased pollutant loads to a water body. A Section 401 certification can be issued only if increased pollutant loads would not cause or contribute to exceedances of water quality standards; and
- CWA Section 402 authorizes the NPDES permit program that covers point sources of pollution discharging to a water body. The NPDES program also requires operators of construction sites one acre or larger to prepare a Stormwater Pollution Prevention Plan (SWPPP) for construction activities and obtain authorization to discharge storm water under an NPDES construction stormwater permit.

Federal Emergency Management Agency

To protect the public from flood hazards, FEMA maps local floodways and flood zones. Through its flood hazard mapping program, FEMA identifies flood hazards, assesses flood risks, and partners with states and communities to provide accurate flood hazard and risk data to guide them to mitigation actions. Flood hazard mapping is an important part of the National Flood Insurance Program (NFIP), as it is the basis of the NFIP regulations and flood insurance requirements. FEMA maintains and updates data through FIRMs and risk assessments. FIRMs include statistical information such as data for river flow, storm tides, hydrologic/hydraulic analyses and rainfall and topographic surveys.

State Regulations

California Water Code, Division 7 (Porter-Cologne Water Quality Control Act)

The California Water Code (including the Porter-Cologne Water Quality Control Act (Division 7) is the principal state law regulating water quality in California. The Porter-Cologne Water Quality Control Act establishes a comprehensive program to protect water quality and the beneficial uses of water, and applies to both surface and groundwater.

The State Water Resources Control Board adopts statewide water quality control plans and its nine Regional Water Quality Control Boards (RWQCBs) are required to develop and adopt regional water quality control plans (“basin plans”) that conform to state water quality policy. In California, water quality standards are established by the nine RWQCBs. The Project site is located in the jurisdictional area of the Lahontan Regional Water Quality Control Board (LRWQCB); therefore, the Water Quality Control Plan for the Lahontan Region is applicable to the Project site and surrounding vicinity, which designates beneficial uses of water bodies to be protected and establishes water quality objectives.

The State Implementation Policy (SIP) applies to discharges of toxic pollutants into the inland surface waters, enclosed bays, and estuaries of California subject to regulation under the State’s Porter-Cologne

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Water Quality Control Act and the federal CWA. Such regulation may occur through the issuance of NPDES permits or other relevant regulatory approaches. The SIP establishes a standardized approach for permitting discharges of toxic pollutants to non-ocean surface waters in a manner that promotes statewide consistency.

California Toxics Rule (40 CFR 131.37)

“Water Quality Standards; Establishment of Numeric Criteria for Priority Toxic Pollutants for the State of California,” also known as the California Toxics Rule, was published in the Federal Register on May 18, 2000. The final rule promulgates: numeric aquatic life for 23 priority toxic pollutants; numeric human health criteria for 57 priority toxic pollutants; and a compliance schedule provision which authorizes the State to issue schedules of compliance for new or revised NPDES permit limits based on the federal criteria when certain conditions are met. The EPA promulgated this rule to fill in the gap in California water quality standards that was created in 1994 when a State court overturned the State’s water quality control plans which contained water quality criteria for priority toxic pollutants. Thus, the State of California was without numeric water quality criteria for many priority toxic pollutants as required by the CAA, necessitating this action by the EPA. The federal criteria are legally applicable in the State of California for inland surface waters, enclosed bays and estuaries for all purposes and programs under the CAA.

The California Toxics Rule standards differ from federal water quality criteria in that they are enforceable. Federal criteria are non-enforceable, science-based thresholds that can be used in development of enforceable state water quality standards.

Non-Point Source Pollution Control Program

Nonpoint Source (NPS) pollution does not originate from regulated point sources and comes from many diffuse sources. NPS pollution occurs when rainfall flows off the land, roads, buildings, and other features of the landscape. This diffuse runoff carries pollutants into drainage ditches, lakes, rivers, wetlands, bays, and aquifers. The CWA requires states to develop a program to protect the quality of water resources from the adverse effects of NPS water pollution. The NPS Program aims to minimize NPS pollution from land use activities in agriculture, urban development, forestry, recreational boating and marinas, hydromodification and wetlands. The NPS Program goal is to achieve water quality goals and maintain beneficial uses.

California Department of Fish and Game Code

Pursuant to Division 2, Chapter 6, Section 1602 of the California Fish and Game Code, the California Department of Fish and Wildlife (CDFW) regulates all diversions, obstructions, or changes to the natural flow or bed, channel, or bank of any river, stream, or lake, which supports fish or wildlife. CDFW requires an entity to notify CDFW of any proposed activity that may modify a river, stream, or lake if the activity will:

- Substantially divert or obstruct the natural flow of any river, stream, or lake;
- Substantially change or use any material from the bed, channel, or bank of any river, stream or lake; or,
- Deposit or dispose of debris, waste, or other material containing crumbled, flakes, or ground pavement where it may pass into any river, stream or lake.

This notification requirement applies to any work undertaken in or near a river, stream, or lake that flows

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at least intermittently through a bed or channel. It may also apply to work undertaken within the floodplain of a body of water.

Sustainable Groundwater Management Act

On September 16, 2014, Governor Jerry Brown signed into law a three-bill legislative package, composed of AB 1739, SB 1168 and SB 1319, collectively known as the Sustainable Groundwater Management Act to manage the State's groundwater.

Lahontan Regional Water Quality Control Board

The City of Palmdale and the Project site lie within the jurisdiction of the LRWQCB. Water quality standards and control measures for surface and ground waters of the Lahontan Region are contained in the Water Quality Control Plan for the Lahontan Region (Basin Plan), which took effect in 1995. The Basin Plan designates beneficial uses for water bodies and establishes water quality objectives, waste discharge prohibitions, and other implementation measures to protect those beneficial uses. State water quality standards also include a Non-Degradation Policy. Water quality control measures include Total Maximum Daily Loads (TMDLs), which are often, but not always, adopted as Basin Plan amendments.

Palmdale Water District

Palmdale Water District (PWD) provides water service to the portion of the Project site that is located slightly northerly of the central community recreation facility. The balance of the Project site is neither within the PWD nor the Los Angeles County Waterworks spheres of influence. Los Angeles County Waterworks has declined interest in serving the Project. The portion of the Project not within the boundary of PWD is located within Antelope Valley East Kern Water District's State Water Supply Contract Service Areas (see Exhibit 4.19-2). Based on the Project design, 304 residential lots are within the PWD boundary and 406 lots are within Antelope Valley East Kern's Wholesale Water District. PWD and Antelope Valley East Kern Water District are coordinating to support establishment of an imported water supply exchange agreement to provide retail water service by PWD to the Project portion located in Antelope Valley East Kern Water District's boundary.

Since Project development will include more than 500 dwelling units, it is required under State law to provide a SB 610 Water Supply Assessment to the City of Palmdale. The water requirements of the entire Project were analyzed by Canon Corp. in concert with input and review by PWD. PWD subsequently approved the Water Supply Assessment and provided SB 610 confirmation to the City. A copy of the confirmation is provided in the Appendix. The Water Supply Assessment documents sources of water supply, quantifies water demands, evaluates drought impacts, and provides a comparison of water supply and demand that is the basis for an assessment of water supply sufficiency. As a result, the PWD has determined that the District has sufficient water available to service the Project demand. The Water Supply Assessment prepared for the Project indicates that "...it is anticipated that existing supplies in combination with identified future and potential water supply opportunities will enable PWD to meet all future water demands which includes the Quail Valley development." The District has extended the Water Supply Assessment through December 20, 2024, by letter dated October 17, 2023.

Local Regulations

City of Palmdale General Plan (Palmdale 2045)

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A General Plan Consistency Assessment of the following Palmdale 2045 Goals and Policies relevant to the Quail Valley Project Hydrology and Water Quality analysis is contained in Appendix A of this EIR.

Conservation Element

Goal CON-5: Protect the Quality and Quantity of Local Water Resources.

Policy CON-5.2: Ground Water Recharge. Ensure that no mineral resource recovery activities extend below the groundwater table.

Policy CON-5.4: Flood Control Measures. Maximize groundwater recharge capabilities with flood control measures.

Goal CON-6: Minimize the Impacts of Urban Development on Groundwater Supplies.

Policy CON-6.1: Encourage Natural Recharge. Restrict building coverage and total impervious area in the vicinity of natural recharge areas.

Policy CON-6.3: Reduce Street Runoff. Design streets to incorporate vegetation, soil, and engineered systems to slow, filter, and cleanse stormwater runoff.

Goal CON-7: Maintain and Further the City's Commitment to Long-Term Water Management Within the Antelope Valley by Planning for the Conservation and Managed Use of Water Resources, Including Groundwater, Imported Water, and Reclaimed Water.

Policy CON-7.1: Reclaimed Water Irrigation. Assess and implement, when and where feasible, reclaimed water for landscape irrigation.

Policy CON-7.2: Water Run-Off Capture. Work with local water purveyors to assess the potential for capturing local run-off and utilization of imported water (water banking) for groundwater recharge within the Planning Area.

Public Facilities, Services, and Infrastructure Element

Policy PFSI-3.4: Drainage Facilities. Through the development review process, reserve land in appropriate locations for construction of drainage facilities.

Policy PFSI-3.6: Code Compliance. All private sewage disposal systems must comply with the requirements of the City of Palmdale Plumbing Code, the Los Angeles County Health Department, and Lahontan Regional Water Quality Control Board and any Memorandum of Understanding between these agencies concerning private sewage disposal systems.

Policy PFSI-3.13: Low Impact Development. Require new development to minimize storm water runoff and pollutant exposure by incorporating low impact development (LID) measures and appropriate best management practices (BMP) consistent with the National Pollution Discharge Elimination System (NPDES).

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- Goal PSFI-4:** **Maximize the Use of Infrastructure Facilities through Appropriate Land Use Strategies.**
- Policy PFSI-4.2:** **Utilize Existing Infrastructure.** Encourage development, which fully utilizes existing infrastructure systems, while decreasing the need for costly extensions of infrastructure into undeveloped areas.
- Policy PFSI-4.3:** **Infrastructure Evaluation.** Evaluate infrastructure facilities and service levels within developed areas, which annex to the City, and promote programs to retrofit street, drainage and sewer improvements where warranted.
- Policy PFSI-4.4:** **Cluster Development.** Encourage clustering of development where appropriate, to maximize use of infrastructure.
- Policy PSFI-5.1:** **Development Priorities.** Prioritize development in areas that have existing horizontal infrastructure (roads, sewer, water, drainage, etc.).
- Policy PFSI-5.2:** **On-Site Infrastructure.** Require all new development, including major modifications to existing development, to construct required on-site infrastructure improvements pursuant to City standards.
- Policy PFSI-5.3:** **Off-Site Fair Share Contribution.** Require all new development, including major modifications to existing development, to construct or provide a fair share contribution toward construction of required off-site improvements, needed to support the project. This includes a fair share contribution toward development of regional master facility plans for roads, sewer, water, drainage, schools, libraries, parks, fire, and other community facilities, prior to granting approval of development applications.
- Policy PFSI-5.7:** **Adjacent Development Integration.** Require that individual development projects integrate with adjacent development with respect to backbone infrastructure (streets, sewer, water, and drainage). If adjacent property is undeveloped, a conceptual plan should be prepared to show that the pending development will allow for future integration and development of adjacent properties in a manner which is reasonable from a design, construction, and cost standpoint.

Safety Element

- Goal SE-4:** **Minimize Impacts to Public Safety and/or Property as a Result of Flooding.**
- Policy SE-4.1:** **Floodplain Management Ordinance.** Require development in designated flood hazard areas to meet standards outlined in the City's Floodplain Management Ordinance and related criteria in the City's Engineering Design Standards.
- Policy SE-4.2:** **Drainage Management Plan.** Implement the City's drainage management plan through the capital improvement program and development review process.
- Policy SE-4.3:** **National Pollutant Discharge Elimination System and Low Impact**

Development. Ensure that new development meets National Pollutant Discharge Elimination System (NPDES) and associated Low Impact Development (LIK) standards that limit peak runoff to pre-development rates.

4.10.3 THRESHOLDS FOR DETERMINING SIGNIFICANCE

According to Appendix G of the CEQA Guidelines, a project will normally have a significant adverse environmental impact on hydrology and water quality if it would:

- Threshold WQ-1** Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality.
- Threshold WQ-2** Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin.
- Threshold WQ-3** 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;
 - ii. substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site;
 - 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,
 - iv. impede or redirect flood flows.
- Threshold WQ-4** In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation.
- Threshold WQ-5** Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan.

4.10.4 ENVIRONMENTAL IMPACT

Impact Analysis

- Threshold WQ-1** Would the Project violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?

Less Than Significant Impact.

Construction of the Project would involve ground-disturbing activities and use of heavy machinery that could release hazardous materials, including sediments and fuels. However, compliance with State and City of Palmdale requirements, construction permits, and implementation of construction Best Management Practices (BMP) will prevent violations of water quality standards and waste discharge requirements. Additionally, compliance with post-construction BMP will also prevent violations of water quality

standards and waste discharge requirements.

Threshold WQ-2 Would the Project substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?

Less Than Significant Impact.

The geologic study prepared for the proposed Project indicated that according to the State of California, the historic high groundwater level near the Project site has been mapped at a depth of approximately eight feet. Exploratory borings conducted for the geologic study encountered groundwater at a depth ranging between approximately 32 and 45 feet. The minimum depth of groundwater at the Project site was within 22 feet in the last 10 years. Groundwater level, localized zones of perched water and increased soil moisture content fluctuations should be anticipated during and following the rainy season. Irrigation of landscaped areas on or adjacent to the Project site can also cause a fluctuation of local groundwater levels. However, use of dry wells as part of Project development will mitigate loss of groundwater infiltration resulting from Project development. Based on research and observed conditions, groundwater is not expected to impact Project development (grading and construction) and the resultant impact of Project development and operation would be less than significant.

Threshold WQ-3 Would the Project 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;
- ii. substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site;
- 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,
- iv. impede or redirect flood flows.

Less Than Significant Impact.

The existing drainage pattern will be modified during Project development. The Quail Valley Planned Development Plan depicts a number of debris basins at natural intersections of various natural drainage areas. As shown on **Exhibit 4.10-1 (Conceptual Drainage Plan)**, the primary drainage will be conveyed within the street curb area to positioned storm drain lines, and from the lines to a large storm drain line in the QV Public Park, and terminate in an open detention basin adjacent to Avenue S. Drainage from the detention basin will be conveyed via the existing box culvert beneath Avenue S to the north. Some low volume and nuisance water will be conveyed through the storm drain system and treated via biofiltration in the QV Public Park and through a series of dry wells that are noted in detail in the Hydrology Study prepared for the Project. A secondary drainage facility and discharge location will occur at the northwest corner of the Project site. This interim drainage facility will be converted to graded residential lots upon completion of regional downstream off-site drainage facilities in a manner stipulated in the Hydrology Study prepared for the Project.

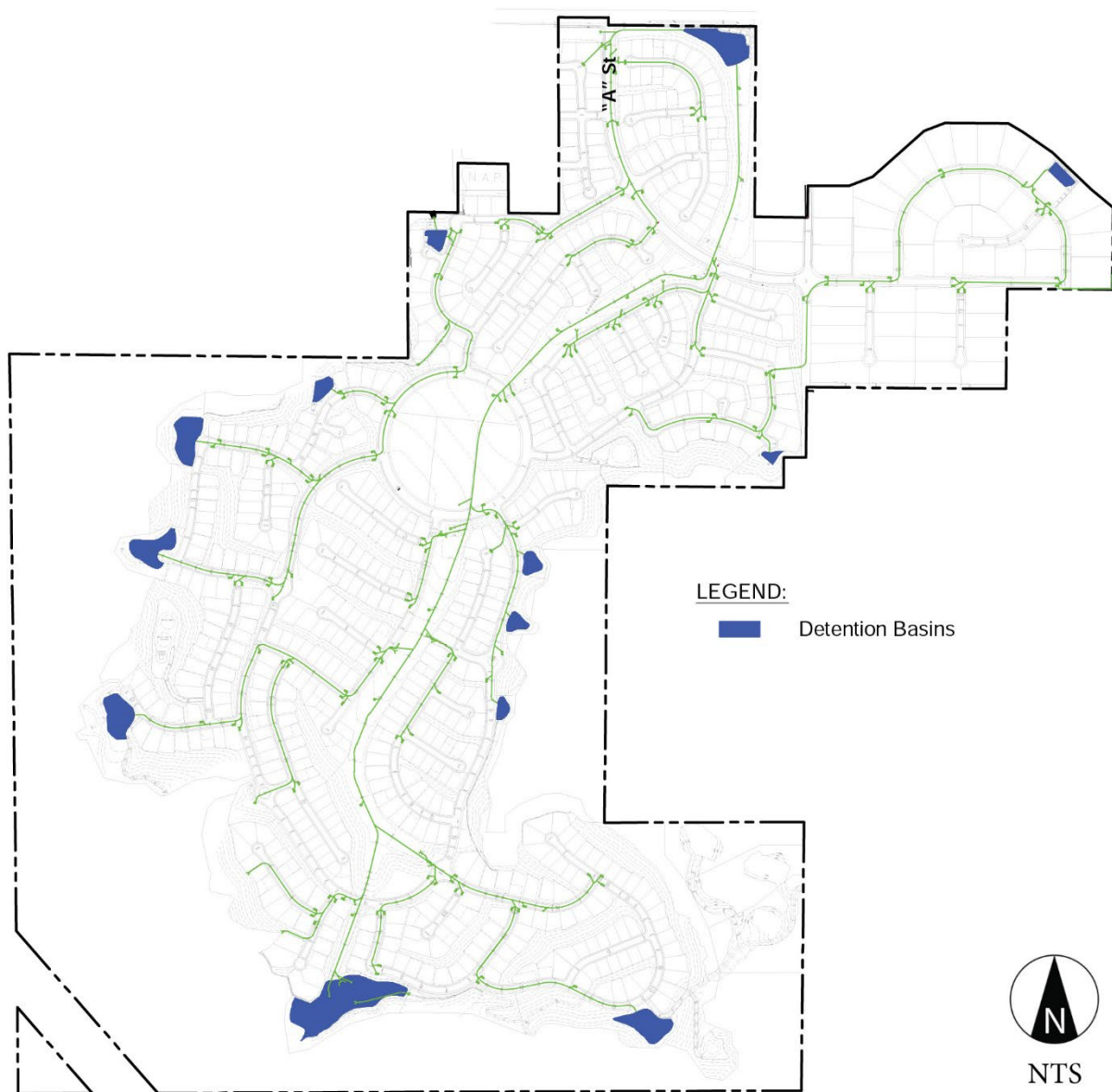
Drainage in the lower northeast portion of the Project site (Planning Area 2 and a portion of Planning Area 3) in which the proposed one-acre equestrian lots will be located, will be conveyed within the street curb area to located storm drain lines before discharging into a detention basin at the northeast boundary of

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Planning Area 2. This drainage will be conveyed under the aqueduct via an existing storm drain line. The three five-acre rural lots located in Planning Area 10 in the southeast corner of the Project site will not significantly alter existing drainage in this area. These lots are sufficiently large to accommodate drainage changes within each individual lot.

EXHIBIT 4.10-1 – CONCEPTUAL DRAINAGE PLAN



Substantial Erosion / Siltation

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Project landscaping, grading in compliance with City of Palmdale Hillside Grading Ordinance requirements, and impervious surfaces will ensure siltation and soil erosion within Area A will be minimized. The Project's residential component will be clustered in lower elevations on the Project site and the height of manufactured slopes will be minimized to the extent feasible to lessen erosion.

Substantial Rate / Volume of Surface Runoff

As indicated in the Hydrology Study prepared for the Project, the rate of surface runoff will increase somewhat due to the replacement of natural surfaces with impervious surfaces. However, there are three detention basins proposed as part of Project development: the westerly detention basin; central detention basin; and, the easterly detention basin. All three basins meet or exceed the 15 percent reduction in predevelopment peak flows that are required by City of Palmdale standards. In addition, flows leaving the basins to existing downstream drainage infrastructure will be reduced in comparison to the predevelopment flow condition. Therefore, the volume of runoff would not exceed the capacities of existing or Project stormwater drainage systems. All runoff would be accommodated adequately and no flooding would occur on- or off-site.

Creation of Runoff Water

The majority of runoff water created by the proposed Project would be from landscape irrigation throughout the project site. However, as previously stated, the volume of runoff would not exceed the capacities of existing or Project stormwater drainage systems. Therefore, all runoff would be accommodated adequately and no flooding would occur on- or off-site.

Impede / Redirect Flood Flows

Project development grading will be designed to maintain the general direction of flood flows throughout Area A. The Quail Valley Planned Development Plan for Area A also encourages the retention of natural drainage patterns and is designed to reduce water use in slope re-planting. Area B will remain in its natural state. Therefore, the resultant Project development impact related to secondary impacts from altered drainage patterns will be less than significant.

Threshold WQ-4 In flood hazard, tsunami, or seiche zones, would the Project risk release of pollutants due to project inundation?

Less Than Significant Impact.

The Project site is 20 miles inland from the Pacific Ocean and therefore is not in danger of exposure to a tsunami or a seiche. As a result, no pollutants would be released due to tsunami or seiche proximity. According to the FEMA Flood Zone Maps (2020), the majority of the Project site is located within Flood Zone D; that is, within an area with Flood Risk due to a nearby Levee, approximately three and one-half miles northwest of the Project site. Development of the Project would replace much of the natural surface in Area A with impervious surfaces and would entail development of improved drainage. Project improvements and compliance with City of Palmdale regulations would ensure any potential impact related to a flood hazard would be maintained at a less than significant level.

Threshold WQ-5 i. Would the Project conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?

Less Than Significant Impact.

Use of dry wells as part of Project development will ensure loss of groundwater infiltration will be less than significant. The Project site detention basins will be designed so peak flow rates for the Project development condition are reduced to less than the bulk peak flow rates of the existing undeveloped Project site. Also, flows will not exceed the design capacity of the existing culverts. Furthermore, riprap pads and/or energy dissipators will be provided to lower the velocity and scouring in the natural terrain of the Project site and in the Project development condition. The resultant level of impact is less than significant.

- ii. Creation or Contribution of Runoff Water that Exceeds Capacity of Existing/Planned Stormwater Drainage Systems or Provides Substantial Additional Sources of Polluted Runoff:

Less than Significant Impact.

Project development will contribute runoff water into stormwater drainage systems. However, proposed storm drain conveyance system improvements that are part of Project development will be located and sized in compliance with the Master Drainage Plan for the Project site and area. Project development will convert natural drainage surfaces on the Project site to impervious surfaces and will alter existing drainage patterns. However, post-Project development peak flows will be less than pre-development flows in the 2-year, 5-year, and 10-year return periods.

- iii. Impede/Redirect Flood Flows:

Less than Significant Impact.

Project development grading is designed to maintain the general direction of flood flows throughout Area A and to encourage retention of natural drainage patterns to reduce water use in slope re-planting. Area B will remain in its natural state.

- iv. Risk Release of Pollutants Due to Project Inundation in Flood Hazard, Tsunami, or Seiche Zones:

No Impact.

The Project site is not located within a flood hazard, tsunami, or seiche zone.

- v. Conflict with/Obstruct Water Quality Control Plan or Sustainable Groundwater Management Plan Implementation:

Less than Significant Impact.

Use of dry wells will ensure loss of groundwater infiltration will be minimized to the extent feasible. Project detention basins will be designed to peak flow rates for Project development conditions will be reduced to less than the bulk peak flow rates of the existing undeveloped Project site. Flows will not exceed design capacity of existing culverts and riprap pads and/or energy dissipators will be provided to lower velocity and scouring in the Project site's natural terrain and in the post-development condition.

Development on the LAFCO-approved non-Quail Valley properties proposed for annexation would require site-specific environmental analysis of potential impacts pertaining to CEQA-identified Hydrology and Water Quality topics for analysis. The non-Quail Valley areas within the overall annexation boundary include vacant lots, lots with existing housing, and the proposed Falcon Glen project area. Additional residential development in the Falcon Glen project area could add as many as 975 dwelling units and 3,510 residents, which could affect drainage patterns on the Annexation sites. As the Falcon Glen project is undergoing a separate approval process, the Hydrology and Water Quality impacts of that project will be addressed as part of that project review. The Falcon Glen property area is currently vacant land.

4.10.5 CUMULATIVE IMPACTS

Pursuant to State Water Resources Control Board and Regional Water Quality Control Board requirements, all construction projects that disturb one or more acres of land are required to obtain a NPDES permit and obtain coverage for construction activities. A site-specific Stormwater Pollution Prevention Plan is required to be developed and implemented for all development projects to obtain coverage. This Plan must identify potential pollutants on the site and identify and implement an effective combination of erosion control and sediment control measures to reduce or eliminate discharge of pollutants to surface water from stormwater and non-stormwater discharges. By complying with these regulatory requirements, the Project contribution to water quality impacts during construction would not be cumulatively considerable.

The Project and other projects within the Project site vicinity would be required to prepare site-specific Water Quality Management Plans and incorporate Best Management Practices into Project designs as necessary to ensure runoff does not substantially contribute to existing water quality violations. Therefore, in the long-term, single-family residential uses on the proposed Project site would not contribute to cumulatively considerable water quality impacts.

Project development will increase impervious surfaces on the Project site. However, Project design will incorporate design features and storm drain improvements that will ensure no increased runoff will occur. The PWD will provide water to the Project and to other developments in the Project site vicinity. The Project storm drain improvements would have sufficient capacity to accommodate and convey Project-generated stormwater runoff. All development within the Project vicinity is required to demonstrate storm drain capacity is available to accommodate anticipated stormwater flows. Therefore, cumulative impacts would be less than significant and the Project contribution of flows thereby would be less than cumulatively considerable.

Although Project development and the development of other projects within the vicinity of the Project site would alter existing drainage patterns through the alteration of existing ground contours, developments would be required to comply with Federal, State and City regulations to minimize stormwater pollution during construction. Grading plans would be required to be designed to prevent undue soil erosion. Development projects would be required to prepare SWPPP and Water Quality Management Plans to ensure substantial soil erosion and/or sedimentation would not occur during temporary construction conditions or in the long-term. In that the Project and other existing and planned developments would be required to comply with Federal, State and City regulations, Project development and operation would not result in a cumulatively considerable impact to erosion or siltation.

Development on the LAFCO-approved non-Quail Valley properties proposed for annexation would require site-specific environmental analysis of potential impacts pertaining to CEQA-identified Hydrology and

Water Quality topics for analysis. The non-Quail Valley areas within the overall annexation boundary include vacant lots, lots with existing housing, and the proposed Falcon Glen project area. Additional residential development in the Falcon Glen project area could add as many as 975 dwelling units and 3,510 residents, which could affect drainage patterns on the Annexation sites. As the Falcon Glen project is undergoing a separate approval process, the Hydrology and Water Quality impacts of that project would be addressed as part of that project review. The Falcon Glen property area is currently vacant land.

4.10.6 LEVEL OF SIGNIFICANCE BEFORE MITIGATION

Project design and associated Best Management Practices (BMPs) are intended to, and will, limit impacts and facilitate a less than significant impact to hydrology and water quality.

4.10.7 MITIGATION MEASURES

No Mitigation Measures are required beyond the Project design features and adherence to the Best Management Practices stipulated in the Hydrology Study prepared for the Project.

4.10.8 LEVEL OF SIGNIFICANCE AFTER MITIGATION

As previously stated, no Mitigation Measures are required beyond the Project design features and adherence to the Best Management Practices stipulated in the Hydrology Study prepared for the Project. Project development and operation would remain a less than significant impact to hydrology and water quality.

4.11 Land Use and Planning

Information for this section was derived from the following: City of Palmdale General Plan, "Palmdale 2045"; Los Angeles County General Plan; City of Palmdale Municipal Code; and the Quail Valley Planned Development Project plans.

4.11.1 ENVIRONMENTAL SETTING

Existing Land Uses

The Project site is comprised of two principal land areas: Area A represents the northerly approximate 670 acres and is located adjacent to Avenue S, while Area B contains the southerly approximate 210 acres situated in the higher elevations of the foothills including a portion of the ridgeline of the Sierra Pelona Mountains. The Project site is currently vacant land, crossed by a series of dirt roadways. As previously discussed, several wildfires have burned portions of the central and southern areas of the site, removing a significant amount of the native vegetation. Area A comprises a gently sloping valley, surrounded on three sides by natural hillsides. The central and northern portions of Area A consist of lowland foothills dominated by big sagebrush scrub, rabbitbrush scrub, Mojave mixed woody scrub, non-native vegetation, and disturbed/developed areas. Several dirt roadways, primarily for access to existing power transmission facilities, traverse the open space in Area A and extend into Area B. Area B comprises a major portion of the natural grade that forms the backdrop of the City of Palmdale's southern skyline.

Surrounding Land Uses

The majority of the surrounding property to the west and south is undeveloped. The Anaverde Nuevo Specific Plan Area, also known as the City Ranch Specific Plan area, consists of residential uses and lies approximately one mile northwest of the proposed Project along Avenue S. There are numerous rural single-family residences separated by open space beginning approximately one quarter miles south of the Area B southern boundary. A small group of single-family residences also occurs along the site's northeastern edge at Tovey Road. Additionally, rural residential development occurs along the easterly and southeasterly edge of the Project site. The California Aqueduct is located to the north and east of the site. The open land to the west is crisscrossed with dirt roads and trails.

Existing General Plan Land Use Designations and Zoning Designations

The Project site is located within unincorporated Los Angeles County, within the City of Palmdale Sphere of Influence, and will be annexed into the City of Palmdale. Thereby, the Project site carries City of Palmdale Land Use and Pre-Zoning designations. The City of Palmdale pre-annexation General Plan designation for the Project site Area A is SFR1 (Single Family Residential – 0-2 dwelling units per acre), with the exception of a small area in the northeast portion of the Project site, east of Tovey Avenue between Avenue S and Sierra Ancha Drive and all of Area B, which carries a pre-annexation General Plan designation of LDR (Low Density Residential – 0-1 dwelling unit per acre). The City pre-annexation zoning designation for the majority of the Project site is SFR1-PZ; zoning for the portion in the northeast Project site and Area B is LDR-PZ. Reference **Exhibit 2-6 (Existing Land Use and Zoning)** and **2-7 (Proposed Land Use and Zoning)**, which depicts these designations.

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As shown on Exhibit 1-4, Proposed Land Use & Zoning, upon approval of the Planned Development and completion of the annexation process, the “Prezone” designations will no longer be applicable, and the proposed zoning designations will be SFR1 (Single Family Residential 1 – Up to 2 du/ac) and the General Plan designations. A Planned Development designation will be applied to the entire project area.

In addition to the Land Use and Zoning designations, and the elements of the Planned Development document, the property is also subject to the City’s Hillside Management Ordinance (Article 17-100 of the Zoning Code). Under the Hillside Management Ordinance, the entire density of Area B will be transferred to Area A.

The area comprising the balance of the central round circle area (excluding the Quail Valley HOA Recreation Center), which includes approximately 10.1-acres, is designated for future development. This development can be either single-family detached, single-family attached, or combination thereof. See Section 3, Project Description, and Section 7, Development Standards, of the Planned Development Plan for additional information regarding this area.

Further discussion of the density transfer and land use consistency is discussed in more detail in the following Section 1.23, Palmdale Land Use and Zoning Consistency, and Section 2, Existing Conditions, of the Planned Development Plan.

Surrounding General Plan Land Use Designations and Zoning Designations

Parcels surrounding the property are largely unincorporated County lands. The existing Palmdale 2045 general plan designations for properties surrounding the site are also shown on **Exhibit 2-6** and primarily consist of LDR (Up to 1 dwelling unit per acre) to the east, south, and west; SFR3 (Single Family Residential 3 - 0-6 dwelling units per acre) for a parcel to the north; and SP-Anaverde Nuevo (Anaverde Specific Plan) for property farther to the northwest. Existing zoning designations for property surrounding the Project site consist primarily of Prezone PZ-LDR (PZ-LDR) to the south, east, and west, PZ-SFR3 across Avenue S to the north, and SP-Anaverde Nuevo farther to the northwest.

4.11.2 REGULATORY FRAMEWORK

Regional Regulations

Southern California Association of Governments (SCAG) Connect SoCal

The Southern California Association of Governments (SCAG) updates Regional Transportation Plan/Sustainable Communities Strategy visionary plan for the future of the region every four years. The current (2022) visionary plan is named Connect SoCal, and contains strategies that meet Federal and State requirements for infrastructure and sustainable planning. Strategies pertaining to housing, mobility, the economy, and the environment are addressed. Connect SoCal’s “Core Vision” center on maintaining and better managing the existing transportation network for moving people and goods, while expanding mobility choices by locating housing, jobs, and transit closer together and increasing investment in transit and complete streets.

Goals and Guiding Principles

Connect SoCal goals are grouped into four categories: economy; mobility; environment; and,

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healthy/complete communities. Connect SoCal establishes goals related to housing, transportation technologies, equity, and resilience to adequately reflect the increasing importance of these topics in the region. Where possible, goals have been developed to link to potential performance measures and targets. Federal policy also requires SCAG to establish performance measures and targets in Connect SoCal. As required under MAP-21/FAST Act, in 2016 and 2017 the Federal Highway Administration (FHWA) issued national performance measures and guidelines for use in establishing Statewide and regional performance targets.

Connect SoCal Goals

1. Encourage regional economic prosperity and global competitiveness
2. Improve mobility, accessibility, reliability, and travel safety for people and goods
3. Enhance the preservation, security, and resilience of the regional transportation system
4. Increase person and goods movement and travel choices within the transportation system
5. Support greenhouse gas emissions and improve air quality
6. Support healthy and equitable communities
7. Adapt to a changing climate and support an integrated regional development pattern and transportation network
8. Leverage new transportation technologies and data-driven solutions that result in more efficient travel
9. Encourage development of diverse housing types in areas that are supported by multiple transportation options
10. Promote conservation of natural and agricultural lands and restoration of habitats

Connect SoCal Guiding Principles

1. Base transportation investments on adopted regional performance indicators and MAP-21/FAST Act regional targets
2. Place high priority for transportation funding in the region on projects and programs that improve mobility, accessibility, reliability, and safety, and that preserve the existing transportation system
3. Assure that land use and growth strategies recognize local input, promote sustainable transportation options, and support equitable and adaptable communities
4. Encourage RTP/SCS investments and strategies that collectively result in reduced non-recurrent congestion and demand for single occupancy vehicle use, by leveraging new transportation technologies and expanding travel choices
5. Encourage transportation investments that will result in improved air quality and public health, and reduced greenhouse gas emissions
6. Monitor progress on all aspects of the Plan, including the timely implementation of projects, programs, and strategies
7. Regionally, transportation investments should reflect best-known science regarding climate change vulnerability, in order to design for long term resilience

Spheres of Influence

Connect SoCal states the following:

“Connect SoCal encourages future unincorporated county growth be prioritized within existing SOIs [Spheres of Influence] to discourage urban sprawl and the premature conversion of agricultural and natural lands, support alignment of policies across jurisdictions, and rehabilitate and utilize existing infrastructure.”

Local Regulations

City of Palmdale General Plan (Palmdale 2045)

A Consistency Assessment of Palmdale 2045 Goals and Policies relevant to the Quail Valley Project Land Use and Planning analysis is contained in **Appendix A** of this EIR. Following are Palmdale 2045 Goals and Policies relevant to the Quail Valley Project.

Land Use and Community Design Element

- Goal LUD-1:** **Complete Neighborhoods where residents can reach daily amenities, local retail, services, parks, and public facilities within a short 20-minute walk.**
- Policy LUD-1.1:** **Balanced Land Uses.** Maintain a balanced land use pattern to support a broad range of housing choices, retail businesses, employment opportunities, educational and cultural institutions, entertainment spaces, and other supportive uses within long-established Palmdale neighborhoods and new growth areas.
- Policy LUD-1.2:** **New Complete Neighborhoods.** Facilitate the construction of new mixed-use neighborhoods that are well connected to services, transit, amenities, public buildings, and parks and recreational facilities.
- Policy LUD-1.3:** **Access to Amenities.** Strive to create development patterns such that the majority of residents are within twenty minutes or less walking distance of a variety of neighborhood-serving uses in Village Centers, such as parks, grocery stores, restaurants, places of worship, cafes, dry cleaners, laundromats, banks, hair care, pharmacies, civic uses, and similar uses.
- Goal LUD-3:** **A City with high-quality services and facilities in all neighborhoods.**
- Policy LUD-5.8:** **Transfer of Development.** Require clustered single family and multifamily development in less constrained areas, transferring density from areas constrained by seismic, drainage, rights-of-way, or other conditions based on technical studies.
- Goal LUD-20:** **Modified and existing Specific Plans strive to relate to and integrate with adjacent existing and future land uses.**
- Policy LUD-20.3:** **Planned Developments.** Encourage the creation of new Village Centers in Planned Development (PD) areas, including Quail Valley PD, Joshua Ranch PD, Aero PD, and The Strate PD.
- Goal LUD-21:** **New Specific Plans are implemented through development of new neighborhoods that are connected, sustainable, diverse, and clustered.**
- Policy LUD-21.2:** **Clustered Development.** Require rural neighborhoods and clustered development in steeper and topographically constrained areas and use these development types to preserve significant natural amenities.
- Goal LUD-24:** **Maintain the character of rural areas.**

Policy LUD-24.1: **Appropriate Densities.** Avoid designating land for higher density uses where prevailing existing development patterns are rural residential with lot sizes of one acre or more.

Policy LUD-24.6: **Potential Annexation.** Consider annexation as a last resort option and only as a logical extension of the City boundaries as neighboring properties are annexed and adjacent properties are developed. Before initiating annexation, evaluate the fiscal, infrastructural and land use impacts of proposed annexations to the City, as well as the desires of inhabitants within the areas to be annexed.

Parks, Recreation and Open Space Element

Goal PR-8: **Preserve significant natural and constructed open space areas that give the city its distinct form and identity.**

Policy PR-8.1: **Greenbelt Program.** Establish a greenbelt program to create a network of open spaces on the city's periphery.

Policy PR-8.3: **Open Space Linkages.** Create a network of open space by creating linkages wherever possible, especially to and from residential neighborhoods.

Policy PR-8.5: **Location and Retain Open Spaces.** Utilize the City's discretionary land use approval process to locate and retain areas for use as open space through dedication or other legal means. Develop criteria and guidelines to identify areas that should be protected.

Policy PR-8.6: **Integrate Natural Hazards to Open Spaces.** Integrate natural hazard areas, such as floodways, seismic fault zones, and unstable soils, among others into the open space network to ensure public health, safety and welfare while preserving open space.

Conservation Element

Goal CON-2: **Preserve designated natural hillsides and ridgelines in the Planning Area, to maintain the aesthetic character of the Antelope Valley.**

Policy CON-2.1: **Hillside Land Management.** Establish a systematic approach to the management of land uses and development in hillside areas.

Policy CON-2.2: **Natural Ridgelines.** Retain the integrity of the natural ridgelines of Ritter Ridge, Portal Ridge, Verde Ridge, the Ana Verde Hills, the Sierra Pelona Mountains, and the lower foothills of the San Gabriel Mountains.

Policy CON-2.3: **Density Transfers.** Encourage density transfers where appropriate so that the density of development respects and is reflective of the natural terrain.

Policy CON-2.4: **Development in Suitable Locations.** Facilitate development in more suitable locations while retaining significant natural slopes and areas of environmental

sensitivity as natural open space.

4.11.3 ***THRESHOLDS FOR DETERMINING SIGNIFICANCE***

According to Appendix G of the CEQA Guidelines, a project will have a significant adverse environmental impact on Land Use and Planning if it would:

Threshold LU-1 Physically divide an established community.

Threshold LU-2 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.

4.11.4 ***ENVIRONMENTAL IMPACT***

Impact Analysis

Threshold LU-1 Would the Project physically divide an established community?

Less Than Significant Impact.

Annexation

The Project includes a request to annex the Project site, together with various adjacent parcels, consistent with the City Sphere of Influence/planning area boundary. The Project site is not contiguous with the City corporate boundary, although Avenue S is owned by the City and is directly adjacent to the Project site. **Exhibit 2-3 (Annexation Boundary)** depicts the properties proposed for annexation. The proposed annexation boundary currently includes 211 assessor parcels, (53 parcels within the property and 158 additional parcels within unincorporated Los Angeles County), totaling approximately 1,310 acres. There are existing residences within the proposed annexation area northwesterly of the Avenue S and 7th Street West intersection. The balance of the annexation area is vacant of development. Annexation of the 211 parcels would provide continuity of the City area/boundary and avoid creation of an “island” of unincorporated Los Angeles County territory.

The non-Quail Valley areas within the overall annexation boundary include vacant lots, lots with existing housing, and the proposed Falcon Glen project area. The annexation area includes the approximate 162.45-acre Falcon Glen project site, which is located in unincorporated Los Angeles County northerly of the Quail Valley Project site, across Avenue S. The Falcon Glen Assessor’s Parcel Numbers are 3004-014-001, 004, 005, 008, 009, 012, 018, and 3004-014-023 through 031. The City has established pre-zoning for the Falcon Glen project site, as depicted on the City Zoning Map (June 29, 2023). Additional residential development in the Falcon Glen project area could add as many as 975 dwelling units and 3,510 residents. The Falcon Glen project area is currently vacant land.

Exhibit 1-5 (Annexation Boundary) in the Planned Development document and **Exhibit 2-3 (Annexation Boundary)** in this Environmental Impact Report include the Falcon Glen project area and other parcels bordering and near the Quail Valley Project site. This document encompasses an Annexation area briefly analyzed in topical regions most relevant to LAFCO. **Exhibits 2-3A through 2-3D** depict several potential

annexation area boundary alternatives that LAFCO may consider in its deliberation about the determination of the final Annexation area boundary. A reduction in the Annexation area arising from LAFCO's final decision would result in fewer or less substantial environmental impacts.

Annexation areas would develop according to residential use designations assigned to properties within the City of Palmdale General Plan Land Use Element and/or any Planned Development Plan, including any project eventually approved for the Falcon Glen project site.

Proposed Development Concept

The requested discretionary changes would facilitate the development of a master planned community in multiple phases (depending on market conditions) that would contain up to 730 single-family residences on six different lot sizes on approximately 878.1 acres. **Exhibit 2-4 (Planned Development Plan)** depicts the areas to be subdivided (approximately 483 acres) and the areas to remain permanently undeveloped (approximately 395 acres). The existing City of Palmdale General Plan land use designation for the approximately 210-acre Area B is LDR (Minimum one-acre lot size), with a density transfer of approximately 63 residential units from Area B to Area A. This will ensure Area B will remain as a long-term undeveloped open space area. This also allows a clustered residential development design within Area A that will preserve hillsides and mountain vistas pursuant to the City of Palmdale Hillside Management Ordinance.

The Project would include the following:

- 647 single-family lots;
- 51 equestrian estate lots;
- 3 large rural lots;
- Approximately 10 acres reserved for the future development of as many as 29 dwelling units (single-family detached, single-family attached, or a combination of both);
- 1 residual residential lot in the northwesterly portion of the Project northerly of Lot 722 (as depicted on Tentative Tract Map 65813);
- Approximately 3-acre QV HOA Recreation Center; and
- An extensive approximate 24-acre QV Public Park and trail system.

Table 2-1 of Section 2.0 (Project Description) provides a summary of all the proposed land uses, dwelling units, acres and density within the Project site.

The Project's proposed Annexation would allow Project development as proposed and would be consistent with the scale of existing residential developments that are within the vicinity of the Project site. Should the City of Palmdale approve Palmdale 2045 prior to consideration of this Project, the proposed General Plan Amendment and Zone Change would be unnecessary.

Furthermore, a similar intensity of development is contemplated for the vacant areas bordering the Project site to the west and to the northeast. Therefore, development and operation of the Project site would not physically divide an established community and the level of impact would be less than significant.

Threshold LU-2 Would the Project 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?

No Impact.

This EIR is intended to serve as the CEQA compliance document for all necessary approvals related to the development of the Project. The City of Palmdale has identified the following discretionary approvals associated with implementation of the proposed Project.

- *Annexation to the City of Palmdale.* Proposed annexation to the City of Palmdale which currently includes 211 assessor parcels, 53 parcels of which are within the Quail Valley Project site. The entire annexation area occupies approximately 1,310 acres.
- *Planned Development.* A Planned Development is requested for the Project Area B to the development envelope within Area A. The approval of a Planned Development would also facilitate the clustering of the allowable units into smaller lot sizes in order to retain the maximum amount of open space in the Project. The overall development density would still be consistent with the proposed General Plan density limit of 0-2 dwelling units per acre for a portion of the property and LDR for the balance of the property. According to the Palmdale Municipal Code (Section 17.16.160) “Planned Development” shall mean the planning, construction or implementation and operation of any use or structure, or a combination of uses and structures, based on a comprehensive and complete design or plan treating the entire complex of land, structures, and uses as a single project.
- *Tentative Tract Map (Builder Map).* A tentative tract map (TTM 65813) is proposed for the subdivision of the property within Area A including the creation of a total of 730 single family residential lots, as well as lots for streets, common areas, a Community Recreation Facility, trails and open space.
- *Site Plan Review.* Design review and approval of the Community Recreation Facility site, water tanks, and pumping facilities will be necessary once more detailed plans and specifications are available.
- *Wastewater District Annexation and potential Sphere of Influence Amendment.* Annexation and potential Sphere of Influence Amendment of a portion of the Project site and adjacent land area to be included in the boundary of the Los Angeles County Sanitation District for wastewater services to the subject property.
- *Regional Water Quality Control Board (RWQCB) Permits.* Permits for the National Pollution Discharge Elimination System (NPDES) process, including a Storm Water Pollution Prevention Plan (SWPP).
- *Antelope Valley Air Quality Management District (AVAQMD) Permits.* Permits as needed for construction and operation of equipment, including grading.
- *City of Palmdale Permits.* Various permits and approvals for roadway, flood control, and other improvements are required.
- *Landscape Lighting & Maintenance District (LLMD) / Maintenance Districts.* Formation of a LLMD or annexation into existing maintenance districts through the City of Palmdale in order to create a long-term maintenance funding source for the trail system, public landscaping, drainage facilities and Avenue S parkways and medians.

Community Facilities District (CFD). Formation of a proposed CFD through the City of Palmdale as a funding mechanism for the major public facilities and infrastructure required to serve the Project.

4.11.5 CUMULATIVE IMPACTS

According to the City of Palmdale, there are 14 projects that are “in the pipeline” within approximately two miles of the approximately 878.1-acre Project site. Total build out of these projects will comprise of the following: 9,477 single-family detached residential units; 2,823 single-family attached residential units; 2,080 multi-family residential units; and 1,161,135 square feet of commercial space. The proposed Project would add 701 single-family detached residential units with an additional 29 single-family detached or multi-family residential units, depending on market demand. The Project site has an existing General Plan land use designation and a Zoning designation that allows for residential development on the approximately 878.1-acre property. Project development together with other existing and planned projects within two miles of the Project site would gradually result in the continuing conversion of large open space areas to an urbanized environment dominated by residential and residential-supporting land uses. None of the future projects nor the Project would disrupt or divide the physical arrangement of the Project vicinity, which is largely residential. In addition, the Planned Development document and Tentative Tract Map for Project will secure large portions of the Annexation area as preserved natural open space. The resultant cumulative impact to Land Use and Planning would be less than significant.

Development on the LAFCO-approved non-Quail Valley properties proposed for annexation would require site-specific environmental analysis of potential cumulative impacts pertaining to CEQA-identified Land Use and Planning topics for analysis. Additional residential development in Falcon Glen could add as many as 975 dwelling units and 3,510 residents. The Falcon Glen property area is currently vacant land. .

4.11.6 LEVEL OF SIGNIFICANCE BEFORE MITIGATION

Project development would not contribute to any significant impacts related to Land Use and Planning in that its proposal would be consistent with contemplated City of Palmdale residential usage for the annexation area and would serve to continue the single-family residential development pattern of the surrounding area. In addition, Project design is in compliance with City of Palmdale Municipal Code requirements pertaining to grading, drainage, and habitat preservation. Therefore, the Project’s contribution to any Land Use and Planning impacts would be less than significant and no mitigation measures are required.

The Project will be required to obtain an approved Streambed Alteration Agreement and potentially an Incidental Take Permit for Joshua Trees, as described in detail in the Biological Resources Section (Section 4.4) of this document.

4.11.7 MITIGATION MEASURES

No Mitigation Measures are required because the level of impact due to Project development and Project operation related to Land Use and Planning will be less than significant.

4.11.8 LEVEL OF SIGNIFICANCE AFTER MITIGATION

Mitigation measures are not necessary and the level of impact due to Project development and operation related to Land Use and Planning would remain less than significant impact.

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4.12 Mineral Resources

Information in this section was derived from the following: City of Palmdale General Plan, "Palmdale 2045"; City of Palmdale Municipal Code; Los Angeles County General Plan 2035 (October 6, 2015); and the Quail Valley Planned Development Project plans.

4.12.1 ENVIRONMENTAL SETTING

The approximately 878.1-acre vacant Project site is located in the Anaverde Valley, along the southern flank of the greater Antelope Valley adjacent to the southerly City boundary. This area is the western-most portion of the Mojave Desert. The Anaverde Valley is bounded by Ritter Ridge to the north and by the Sierra Pelona foothills to the south. Project site elevations range from approximately 1,940 to 3,400 feet above sea level.

The Project site does not have any known mineral resource nor is it zoned for any mineral resource extraction.

4.12.2 EXISTING REGULATIONS & STANDARD CONDITIONS**Local Regulations***City of Palmdale General Plan (Palmdale 2045)*

A General Plan Consistency Assessment of Palmdale 2045 Goals and Policies, relevant to the Quail Valley Mineral Resource analysis is contained in Appendix A of this EIR.

There are no Palmdale 2045 Goals or Policies that pertain to Mineral Resources that are applicable to the proposed project. The Project site is not designated as a Mineral Resource/Recovery Zone and contains no Mineral Resources other than two capped oil wells.

4.12.3 THRESHOLDS FOR DETERMINING SIGNIFICANCE

Appendix G of the CEQA Guidelines contains the Initial Study Environmental Checklist Form used during preparation of the Initial Study. The Initial Study includes questions pertaining to mineral resources regarding whether the project would result in any of the following.

- | | |
|------------------------|--|
| Threshold MIN-1 | 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. |
| Threshold MIN-2 | 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. |

4.12.4 ENVIRONMENTAL IMPACT

Impact Analysis

Threshold MIN-1 Would the Project 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?

No Impact.

The closest mineral resource site is the Little Rock Creek Sector which is located approximately 8 miles east of the Project site. This Sector is designated Mineral Resource Zone – 2 (MRZ-2) which indicates that significant mineral deposits are present. However, the Project site itself does not have a known mineral resource nor is it zoned for any mineral resource extraction. Therefore, Project development would not result in the loss of availability of a known mineral resource that would be of value to the region or to residents of the State of California and there would be no impact.

Threshold MIN-2 Would the Project 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?

No Impact.

The Project site does not have any known mineral resources. Therefore, Project development will not result in the loss of availability of a locally-important mineral resource recovery site delineated on the City of Palmdale General Plan and there would be no impact.

Development on the LAFCO-approved non-Quail Valley properties proposed for annexation would require site-specific environmental analysis of potential impacts pertaining to CEQA-identified Mineral Resources topics for analysis. The non-Quail Valley areas within the overall annexation boundary include vacant lots, lots with existing housing, and the proposed Falcon Glen project area.

4.12.5 CUMULATIVE IMPACTS

As indicated above, Project development would not result in any impacts to a known mineral resource or expose people or property to hazards from abandoned mines or quarries. The Project therefore would not result in a cumulatively considerable impact.

Development on the LAFCO-approved non-Quail Valley properties proposed for annexation would require site-specific environmental analysis of potential cumulative impacts pertaining to CEQA-identified Mineral Resources topics for analysis.

4.12.6 LEVEL OF SIGNIFICANCE BEFORE MITIGATION

Project development and operation will result in no impact to Mineral Resources.

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4.12.7 MITIGATION MEASURES

No Mitigation Measures are required.

4.12.8 LEVEL OF SIGNIFICANCE AFTER MITIGATION

Project development and operation will result in no impacts to Mineral Resources.

4.13 Noise

Information for this section was derived from the following: City of Palmdale General Plan, “Palmdale 2045”; Los Angeles County General Plan; City of Palmdale Municipal Code; Landrum & Brown, “Noise Assessment for: Quail Valley Development, City of Palmdale (December 12, 2017); Landrum and Brown, “Noise Assessment for: Quail Valley Development, City of Palmdale (January 16, 2018); Landrum and Brown, “Validity of Noise, Greenhouse Gas, and Air Quality Studies for Quail Valley Residential Project” (August 18, 2023); and, the Quail Valley Planned Development plans.

The 2023 Landrum and Brown update to the Noise Study originally conducted for the Project stated as follows: “The Noise Assessment Report projects future noise exposure in 2026. This report is valid for the Quail Valley Residential Development project because it was conducted using accepted methods and procedures, and the data and analysis methods are current.”

Noise Fundamentals

Sound is any disturbance propagated in an elastic medium, which may be a gas, liquid, or solid. The sound is perceived by vibration of the eardrum in the audible frequency range due to incremental variation in air pressure. Noise is defined as “unwanted sound.” That is, sound becomes unwanted when it interferes with normal activities, when it causes actual physical harm, or when it has adverse effects on health. Sound is described technically in terms of its loudness and frequency (pitch). Because of the wide range of sound pressures to which the ear responds, sound pressures are commonly stated in terms of the ratio of the measured quantity (sound pressure) to a reference quantity. The quantity is given in a logarithmic form and is said to be a level in decibels (dB). In terms of human response to noise, a sound 10 dB higher than another is judged to be twice as loud; 20 dB higher four times as loud. Everyday sounds normally range from 30 dB (very quiet) to 100 dB (very loud). Another important aspect of noise is the duration of the sound and the way sound is described and distributed in time.

Sound levels decrease as a function of distance from the source as a result of wave divergence, atmospheric absorption, and ground attenuation. As a sound wave travels away from the source the sound energy is dispersed over a greater area, thereby dispersing the sound power of the wave. Atmospheric absorption also influences levels received. The greater the distance traveled, the greater the influence and the resultant fluctuations. The degree of absorption is a function of frequency of the sound as well as humidity and temperature of the air. Turbulence and gradients of wind, temperature and humidity play a significant role in determining the degree of attenuation. Intervening topography also can have a substantial effect on noise levels.

In response to known effects of noise, criteria have been established to help protect public health and safety, and to prevent disruption of certain human activities. The criteria are based on such known impacts of noise on people as hearing loss, speech interference, sleep interference, physiological responses, and annoyance. The following describe and discuss each of these potential noise impacts on people:

Hearing Loss: The potential for noise induced hearing loss is more commonly associated with occupational noise exposures in heavy industry or very noisy work environments. Noise levels in neighborhoods are not sufficiently loud to cause hearing loss.

Speech Interference: Speech Interference is one of the primary concerns in environmental noise problems.

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Normal conversational speech in the range of 60-65 dBA and any noise in this range or louder may interfere with speech. There are specific methods of describing speech interference as a function of distance between speaker, listener and voice level.

Sleep Interference: Sleep Interference is a major concern due to traffic noise. Sleep disturbance studies have identified interior noise levels that have the potential to cause sleep disturbance. Sleep disturbance does not necessarily mean awakening from sleep, but can refer to altering the pattern and stages of sleep.

Physiological Responses: Physiological Responses are those measurable effects of noise that are realized as changes in pulse rate and blood pressure. While such effects can be induced and observed, the extent is unknown to which these physiological responses cause harm or are signs of harm.

Annoyance: Annoyance is the most difficult of all noise responses to describe. Annoyance is a very individual characteristic and can vary widely from person to person. What one person considers tolerable can be quite unbearable to another person of equal hearing capability. Several factors are related to the level of community annoyance, including the following:

- Fear associated with noise producing activities;
- Socio-economic status and educational level;
- Perception that those affected are being unfairly treated;
- Attitudes regarding the usefulness of the noise-producing activity; and,
- Belief that the noise source can be controlled.

Noise Assessment Metrics

Most noise assessment metrics use the A-Weighted noise level to quantify noise impacts on humans. A-Weighting is a frequency weighting that accounts for human sensitivity to different frequencies. Noise metrics can be divided into two categories: single event and cumulative. Single-event metrics describe the noise levels from an individual event (e.g., heavy equipment pass-by). Cumulative metrics average the total noise over a specific time period (typically one or 24 hours) for community noise problems. Cumulative noise metrics such as Community Noise Equivalent Level (CNEL) correspond best with human response to noise.

Several noise exposure metrics have been developed for measurement of community noise to account for the following: (1) parameters of noise that have been shown to contribute to effects of noise on humans; (2) variety of noises found in the environment; (3) variations in noise levels that occur as a person moves through the environment; and (4) variations associated with the time of day. A number of noise exposure metrics have been developed to account for the observation that the potential for a noise to impact people is dependent on the total acoustical energy content of the noise. In California, two environmental noise exposure metrics are commonly used: (Equivalent Noise Level, or Leq; and Community Noise Equivalent Level (CNEL), which are described as follows.

Leq: Leq is the sound level that corresponds to a steady-state sound level containing the same total energy as a time-varying signal over a given sample period. Leq is the “energy” average noise level during the time period of the sample and can be measured for any time period (typically one hour). This one-hour noise level also can be referred to as the Hourly Noise Level (HNL), which is the energy sum of all events and background noise levels that occur during that time period.

CNEL: Community Noise Equivalent Level is the predominant rating scale now used. The CNEL scale

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represents a time weighted 24-hour average noise level based on the A-weighted decibel. Time-weighted refers to noise that occurs during certain sensitive time periods is penalized for occurring at these periods. The evening time period (7:00 p.m.-10:00 p.m.) penalizes noises by 5dBA; nighttime (10:00 p.m.-7:00 a.m.) noises are penalized by 10 dBA. A CNEL noise level may be reported as a “CNEL of 60 dBA,” “60 dBA CNEL,” or simply “60 CNEL.”

Ldn: Ldn is the day-night scale and is similar to the CNEL scale except that evening noises are not penalized. It is a measure of the overall noise experienced during the entire day. The time-weighted refers to noise that occurs during certain sensitive time periods being penalized for occurring at these times. In the Ldn scale, those noise levels that occur during the night are penalized by 10 dB, which was selected to attempt to account for increased human sensitivity to noise during the quieter period of a day.

L(percent): *L(percent)* is a statistical method of describing noise that accounts for variance in noise levels throughout a given measurement period. *L(percent)* is a way to express the noise level exceeded for a percentage of time in a given measurement period. This metric is used for most Noise Ordinance standards. As an example, most daytime County, State and City Noise Ordinances use an ordinance standard of 55 dBA for 30 minutes per hour or an L(50) level of 55 dBA or, the Noise Ordinance states that no noise level should exceed 55 dBA for more than 50 percent of a given period.

The State of California established a noise compatibility matrix which was adopted by the City of Palmdale to determine the compatibility of various land uses with appropriate noise exposure levels. These noise exposure levels are framed in guidelines termed as “normally acceptable,” “conditionally acceptable,” “normally unacceptable,” and “clearly unacceptable.” A land use exposed to Normally Acceptable noise levels indicates that the land use is compatible with the noise environment and no special noise insulation is required. If new construction is exposed to a Conditionally Acceptable noise level, a noise analysis typically is required to determine noise mitigation required to reduce noise levels to a compatible level. A noise analysis is required for new construction exposed to a Normally Unacceptable Noise Level in order to determine mitigation measures that will reduce noise levels to a compatible level. Generally, development is discouraged for land uses in Normally Unacceptable Noise Level areas. Proposed development exposed to Clearly Unacceptable Noise Levels generally should not be undertaken.

The following **Table 4.13-1 (City of Palmdale Noise Guidelines)**, which is presented in the Noise Background Report for Palmdale 2045 (General Plan Update) as Table 13.3.

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Table 4.13-1 – City of Palmdale Noise Guidelines			
Land Use	Maximum Acceptable Exterior Noise Levels	Maximum Acceptable Interior Noise Levels	Scale
Residential	65	45	dBA CNEL
Commercial	Noise level which does not jeopardize health, safety, and welfare of visitors	55	Leq
Institutional	Noise level which does not jeopardize health, safety, and welfare of visitors	45	Leq
Industrial	Noise level which does not jeopardize health, safety, and welfare of visitors	65	Leq
Land Use	Maximum Acceptable Exterior Noise Levels	Maximum Acceptable Interior Noise Levels	Scale

Vibration

Ground-borne vibration associated with vehicular traffic are generally overshadowed by vibration generated by heavy trucks that roll over the same uneven roadway surfaces. However, due to the rapid drop-off rate of ground-borne vibration and the short duration of the associated events, vehicular traffic-induced ground-borne vibration is rarely perceptible beyond the roadway right-of-way and rarely results in vibration levels that cause damage to buildings in the vicinity. While vehicular traffic is rarely perceptible, construction has the potential to result in varying degrees of temporary ground vibration, depending on the specific construction activities and equipment used.

Table 4.13-2 (Vibration Source Levels for Construction Equipment) summarizes ground vibration levels associated with various types of construction equipment.

Table 4.13-2 – Vibration Source Levels for Construction Equipment	
Equipment	PPV (in/sec) at 25 feet
Small Bulldozer	0.003
Jackhammer	0.035
Loaded Trucks	0.076
Large Bulldozer	0.089

Source: Transit Noise and Vibration Impact Assessment Manual prepared by the Federal Transit Administration dated 2018.

4.13.1 ENVIRONMENTAL SETTING

Existing Roadway Noise Levels

The Noise Assessment prepared for the proposed Project computed projected highway noise levels using the Highway Noise Model published by the Federal Highway Administration (“FHWA Highway Traffic Noise Prediction Model,” FHWA-RD-77-108, December, 1978). The FHWA Model uses traffic volume, vehicle mix, vehicle speed and roadway geometry to compute the “equivalent noise level.” CNEL contours are found by calculating distances to the 60 dB, 65 dB, and 70 dB CNEL contours. The Noise Assessment used traffic volumes and estimated speeds to estimate noise levels in terms of CNEL. The Traffic Impact

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Analysis prepared for the Project provided Existing, Future, With Project, and Without Project traffic volumes used in the Noise Assessment.

The following **Table 4.13-3 (Existing Roadway Traffic Noise Levels)** indicates distances to the existing CNEL contours for the major roadways in the vicinity of the Project site. High noise levels that either approach or exceed 65 dB CNEL occur along Elizabeth Lake Road, Palmdale Boulevard, Highland Street, Tierra Subida Avenue, and Avenue S.

Table 4.13-3 – Existing Roadway Traffic Noise Levels				
Roadway and Segment	dB CNEL at 100 feet from Roadway Centerline	Distance to CNEL Contour from Centerline of Roadway (feet)		
		70 CNEL	65 CNEL	60 CNEL
Elizabeth Lake Road				
West of Ranch Center Drive	59	RW	40	85
Ranch Center Drive to Highland Street	59.6	RW	44	95
Highland Street to 10 th Street West	65.7	52	112	240
East of 10 th Street West	64.9	46	98	211
Palmdale Boulevard				
West of SR-14 Southbound Ramps	66	54	116	250
East of SR-14 Northbound Ramps	66.1	55	118	254
Highland Street				
North of Elizabeth Lake Road	62.1	30	64	137
Tierra Subida Ave./10 th St. West				
North of Elizabeth Lake Road	65.4	49	106	228
Elizabeth Lake Road to Avenue Q-8	65.4	49	107	230
Avenue Q-8 to 5 th Street West	64.7	44	95	205
5 th Street West to Rayburn Road	65.3	49	105	226
Rayburn Road to Avenue S	63.9	39	84	182
Avenue S to Barrel Springs Road	57.5	15	31	68
South of Barrel Strings Road	41.5	RW	RW	RW
Avenue S				
West of Parkwood Drive	53.9	RW	RW	39
Parkwood Drive to The Groves	58.8	RW	39	84
The Groves to Project Entrance	64	40	86	186
Project Entrance to Tovey Avenue	64.1	40	87	187
Tovey Avenue to 7 th Street West	63.2	35	76	164
7 th Street West to Tierra Subida Ave.	63.4	36	78	168
Tierra Subida Ave. to SR-14 Southbound Ramps	64.7	44	96	206
SR-14 Northbound Ramps to 5 th Street East	67.4	67	145	313
East of 5 th Street East	67.7	70	151	326

Note: RW-Noise Contour falls within roadway right-of-way.

Source: Noise Assessment for: Quail Valley Development, City of Palmdale prepared by Landrum & Brown dated January 16, 2018.

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4.13.2 REGULATORY FRAMEWORK

To limit population exposure to physically and/or psychologically damaging as well as intrusive noise levels, the Federal government, the State of California, various county governments, and most municipalities in the State have established standards and ordinances to control noise. In most areas, automobile and truck traffic is the major source of environmental noise. Traffic activity generally produces an average sound level that remains constant with time. Air and rail traffic and commercial and industrial activities are also major sources of noise in some areas. Federal, State and local agencies regulate different aspects of environmental noise. Federal and State agencies generally set noise standards for mobile sources such as aircraft and motor vehicles, while regulation of stationary sources is left to local agencies.

State Regulations

The State of California regulates freeway noise, sets standards for sound transmission, provides occupational noise control criteria, identifies noise standards, and provides guidance for local land use compatibility. State law requires each city and county adopt a General Plan that includes a Noise Element.

The 2016 State of California Green Building Standards Code contains mandatory measures for non-residential building construction. These noise standards are applied to new construction in California for controlling interior noise levels resulting from exterior noise sources. The regulations specify acoustical studies must be prepared when non-residential structures are developed in areas where exterior noise levels exceed 65 dBA CNEL, such as within a noise contour of an airport, freeway, railroad, and other areas where noise contours are not readily available.

Local Regulations

City of Palmdale General Plan (Palmdale 2045)

A General Plan Consistency Assessment of Palmdale 2045 Goals and Policies, relevant to the Quail Valley Noise analysis is contained in Appendix A of this EIR. Following are Palmdale 2045 Goals and Policies relevant to the Quail Valley Project.

Military Compatibility Element

Goal MC-3: **Protect residents from excessive noise and protect Plant 42 from noise complaints by preventing incompatible land uses from encroaching upon the site.**

Policy MC-3.1: **Noise and Overflight Compliance.** Ensure that all new land use proposals comply with the noise and overflight policies of the most recent AICUZ for Plant 42.

Noise Element

Goal N-1: **Minimize Resident Exposure to Excessive Noise.**

Policy N-1.2: **Restrict Land Uses.** Restrict noise sensitive land uses near existing or future air, rail, or highway transportation noise sources unless mitigation measures have been incorporated into the design of the project to reduce the noise levels at the noise

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sensitive land use to less than 65 dBA CNEL at all exterior living spaces including but not limited to, single-family yards and multi-family patios, balconies, pool areas, cook-out areas and related private recreation areas.

Policy N-1.4: **Noise Abatement strategies.** Explore the use of noise abatement strategies such as natural barriers, sound walls, and other buffers to mitigate excessive noise.

Goal N-2: **Maintain Acceptable Noise Environments Throughout the City.**

Policy N-2.2: **Restrict Construction Activities.** Restrict construction activities in the vicinity of sensitive receptors during the evening, early morning, and weekends and holidays.

Policy N-2-3: **Maintain Acceptable Noise.** Utilize any or all the following measures to maintain acceptable noise environments throughout the city:

- Control of noise at its source, including noise barriers and other muffling devices built into the noise source.
- Provision of buffer areas and/or wide setbacks between the noise source and other development.
- Reduction of densities, where practical, adjacent to the noise source (freeway, airport, railroad).
- Use of sound insulation, blank walls, double paned windows and other design or architectural techniques to reduce interior noise levels.
- Designation of appropriate land uses adjacent to known noise sources.

City of Palmdale Noise Ordinance

The City of Palmdale Noise Ordinance governs operational noise generated at one property that may impact an adjacent property within the City of Palmdale. This Ordinance does not regulate noise from transportation sources. Palmdale Municipal Code Chapter 9.18 describes as follows:

- A. It shall be unlawful for any person to willfully make or continue, or cause or permit to be made or continued, any loud, unnecessary, or unusual noise which unreasonably disturbs the peace and quiet of any neighborhood or which causes discomfort or annoyance to any reasonable person of normal sensitiveness residing in the area.
- B. The characteristics and conditions, which may be considered in determining whether such noise violates the provisions of this section, shall include, but not be limited to, the following:
 1. The volume of the noise;
 2. The intensity of the noise;
 3. Whether the nature of the noise is usual or unusual;
 4. Whether the origin of the noise is natural or unnatural;
 5. The volume and intensity of the background noise, if any;
 6. The proximity of the noise to sleeping facilities;
 7. The nature and zoning of the area within which the noise emanates;
 8. The density of the inhabitation of the area within which the noise emanates;
 9. The time of the day or night the noise occurs;
 10. The duration of the noise;

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11. Whether the noise is recurrent, intermittent, or constant; and
12. Whether the noise is produced by a commercial or noncommercial activity. (Ord. 1332 § 1, 2007)

Section 8.28.030 PMC regulates construction noise and prohibits noise generated by construction activities between 8:00 p.m. and 6:30 a.m. Monday through Saturday, and at any time on Sundays. The PMC does not include specific noise level limits for construction activities.

County of Los Angeles Noise Ordinance

Portions of the Project site are located directly adjacent to properties within Los Angeles County. These properties are protected by noise level limits as established in the County of Los Angeles Noise Ordinance. Sections 12.08.440 (A) and (B) of the County of Los Angeles Noise Ordinance states the following with respect to construction noise:

- A. Operating or causing the operation of any tools or equipment used in construction, drilling, repair, alteration or demolition work between weekday hours of 7:00 p.m. and 7:00 a.m., or at any time on Sundays or holidays, such that the sound therefrom creates a noise disturbance across a residential or commercial real-property line, except for emergency work of public service utilities or by variance issued by the health officer is prohibited.
- B. Noise restrictions at Affected Structures. The contractor shall conduct construction activities in such a manner that the maximum noise levels at the affected buildings will not exceed those listed in the following schedule.
 1. At Residential Structures.
 - a. Mobile Equipment. Maximum noise levels for nonscheduled, intermittent, short-term operation (less than ten days) of mobile equipment:
 - Single-family Residential – 75 dBA
 - Multi-family Residential – 80 dBA
 - Semi-residential/Commercial – 85 dBA
 - Daily, except Sundays and legal holidays, 7:00 a.m. to 8:00 p.m.
 - Single-family Residential – 60 dBA
 - Multi-family Residential – 64 dBA
 - Semi-residential/Commercial – 70 dBA
 - Daily, 8:00 p.m. to 7:00 a.m., and all-day Sunday and legal holidays

4.13.3 THRESHOLDS FOR DETERMINING SIGNIFICANCE

According to Appendix G of the CEQA Guidelines, a project will normally have significant adverse environmental impacts due to noise if it would result in:

Threshold NOI-1	Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan, noise ordinance, or applicable standards of other agencies.
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Threshold NOI-2 Generation of excessive ground-borne vibration or ground-borne noise levels.

Threshold NOI-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?

Noise Impact Criteria

Potential noise impacts are commonly divided into two groups; temporary (short-term) impacts and long-term impacts. Temporary noise impacts are usually associated with noise generated by Project development activities including demolition of existing structures, grading, and construction. Long-term noise impacts are divided into two types; impacts on surrounding land uses generated by the Project and those impacts that occur at the Project site.

Off-site impacts from short-term and long-term on-site activities are measured against the previously discussed City of Palmdale General Plan and Noise Ordinance criteria. Construction activities, together with any noise generating activities associated with Project operation, will be required to meet City Noise Ordinance standards.

Long-term off-site impacts from traffic noise are measured against the following two criteria, both of which must be met for a significant impact to be identified:

- 1) Project traffic must cause a substantial noise level increase (greater than three dB) on a roadway segment adjacent to a noise sensitive land use; and
- 2) The future noise level that will exist if the Project is completed must exceed the criteria level for the noise sensitive land use. In this case, the criteria level is 65 dB CNEL for residential land uses.

For community noise assessment, changes in noise levels greater than three dB are often identified as significant; changes less than 1 dB will not be discernible to local residents. In the range of one to three dB, residents who are very sensitive to noise may perceive a slight change. In laboratory testing situations, humans are able to detect noise level changes of slightly less than one dB. In a community noise situation, noise exposures occur over a long period of time and changes in noise levels occur over a period of years. Therefore, the level at which changes in community noise levels become discernible is likely to be a value greater than one dB, and three dB appears to be appropriate for most people. Therefore, the Noise Assessment conducted for the Project states “a project would normally have a significant impact on noise levels from project operations if the project causes the ambient noise level measured at the property line of affected uses to increase by three dBA CNEL.”

Long-term on-site impacts are measured against the noise compatibility matrix established by the State of California and adopted by the City of Palmdale. The land uses relevant to the proposed Project are previously listed in **Table 4.13-1 (City of Palmdale Land Use Compatibility Matrix)**. The standards for residential land uses state that the exterior noise exposure levels are normally acceptable up to 65 dB CNEL. The Noise Assessment conducted for the Project uses these noise standards to assess compatibility of the proposed uses with the noise environment.

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4.13.4 ENVIRONMENTAL IMPACT

Impact Analysis

Threshold NOI-1 Would the Project result in 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, noise ordinance, or applicable standards of other agencies?

Less Than Significant Impact with Mitigation Incorporated.

Short-Term Off-Site Impacts

Construction Noise

Construction noise represents a short-term impact on ambient noise levels. However, noise generated by construction equipment, including trucks, graders, bulldozers, concrete mixers and portable generators can reach high levels. Noise generated by demolition of any existing structures on the Project site and grading activities will have similar noise levels.

The peak noise level for most construction equipment is 80 to 95 dBA at a distance of 50 feet. Noise levels at greater distances would be less than this range. As an example, peak construction noise levels at 200 feet would be approximately 12 dB less and would range from 68 to 83 dBA.

Sensitive land uses closest to the Project site include the existing residences north of the Project site along Tovey Avenue and Hernandez Drive, south of Avenue S. These residences are approximately 50 feet from the Project construction zone. Based on this distance, the worst-case unmitigated peak (L_{max}) construction noise levels would be in the 80 to 95 dBA range adjacent to those residences on the westerly side of Tovey Avenue for very short periods of time. The average noise levels typically are five to 15 dB lower than the peak noise levels. Average noise levels (L_{eq}) at the nearby residences could be in the 65 to 80 dBA range, which are substantially above current noise levels expected in the Project area. Therefore, significant noise increases will occur due to construction activities. The Noise Assessment prepared for the proposed Project indicates that the resultant noise levels are higher than existing ambient conditions, "...but are not excessively high. This level of noise is common in many urban areas." Thereby, limiting construction activities to hours consistent with the PMC will be necessary and is required as provided in **Mitigation Measure MM-NOI-1** below.

Long-Term Off-Site Impacts

Traffic Noise – Existing Year 2016

Increased traffic caused by Project operation will result in increased traffic noise levels along roadways in the Project vicinity. The Traffic Assessment prepared for the Project utilized the FHWA noise model to determine traffic noise impacts due to the proposed Project. The following **Table 4.13-4 (Traffic Noise Level Increases – Existing (dB CNEL))** shows the increase in traffic noise levels on each of the roadway segments most affected by the proposed Project compared to the Existing (year 2016) scenario. These increases in noise levels are due to the difference between the Existing traffic volumes and the Existing Plus Project traffic volumes. The noise increase is due exclusively to the Project and represents the greatest increase that can be attributable to the Project. Courts have determined that examination of the Existing

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Plus Project Case represents the worst-case impact generated solely by the Project.

Table 4.13-4 – Traffic Noise Level Increases – Existing (dB CNEL)				
<i>Roadway and Segment</i>	Existing (2016) ADT	Project ADT	<i>Existing + Project ADT</i>	<i>Increase in Noise Level (dB)</i>
<i>Avenue S</i>				
<i>West of Parkwood Drive</i>	905	676	1,581	2.4
<i>Project Entrance to Tovey Avenue</i>	6,105	4,649	10,754	2.5
<i>Tovey Avenue to 7th Street West</i>	6,193	5,574	11,767	2.8
<i>7th Street West to Tierra Subida Avenue</i>	6,406	5,574	11,980	2.7
<i>Tovey Avenue</i>				
<i>South of Avenue S</i>	229	1,321	1,550	8.3

Source: Noise Assessment for: Quail Valley Development, City of Palmdale prepared by Landrum & Brown dated January 16, 2018.

As indicated in **Table 4.13-4**, the greatest increase in traffic noise due to the Project is along Tovey Avenue, south of Avenue S, which will see an increase of 8.3 dB. The existing noise exposure along this roadway segment is 39.6 dB CNEL at a 100-foot distance. The increase in noise due to the Project will raise the noise level to 47.9 dB CNEL at a 100-foot distance. Although the projected increase is significant (more than three dB), the resulting noise level will be less than 48 dB CNEL, which is well below the exterior noise standard of 65 dB CNEL. Therefore, the Noise Assessment indicates “there will be no significant off-site traffic noise impacts due directly to the project on this roadway.”

Other notable increases occur along Avenue S west of Parkwood Drive (an increase of 2.4 dB), along Avenue S between the Project entrance and Tovey Avenue (an increase of 2.5 dB), along Avenue S between Tovey Avenue and 7th Street West (an increase of 2.8 dB), and along Avenue S between 7th Street West and Tierra Subida Avenue (an increase of 2.7 dB). All other increases on other roadway segments are 1.5 dB or less. Since all increases on these roadway segments are less than 3dB, the data indicate that the Project by itself will not significantly impact noise levels along any roadway segments. Therefore, the Noise Assessment states “there will be no significant off-site traffic noise impacts due directly to the project.”

Traffic Noise – Opening Year 2026

The following **Table 4.13-5 (Traffic Noise Level Increases – Opening Year 2026 (dB CNEL))** shows the most significant traffic noise level increases in dB CNEL on each roadway segment affected by the Project for Opening Year 2026. The greatest increase in traffic noise due to the Project is along Tovey Avenue, south of Avenue S, which will see an increase of 7.6 dB. Existing noise exposure along this roadway segment is 39.6 dB CNEL at a distance of 100 feet. The increase in noise due to the Project and the increase in projected growth over the next six years will raise the noise level to 49.6 dB CNEL at a distance of 100 feet. Although the projected increase is significant (more than 3 dB), the resultant noise level will be less than 50 dB CNEL, which is well below the exterior noise standard of 65 dB CNEL. Therefore, the Noise Assessment prepared for the Project states “there will be no significant off-site traffic noise impacts due directly to the project on this roadway.”

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Table 4.13-5 – Traffic Noise Level Increases - Opening Year 2026 (dB CNEL)				
<i>Roadway and Segment</i>	Opening (2026) ADT	Project ADT	<i>Opening (2026) + Project ADT</i>	<i>Increase in Noise Level (dB)</i>
<i>Avenue S</i>				
<i>West of Parkwood Drive</i>	1,113	676	1,789	2.1
<i>Project Entrance to Tovey Avenue</i>	7,436	4,649	12,085	2.1
<i>Tovey Avenue to 7th Street West</i>	7,550	5,574	13,124	2.4
<i>7th Street West to Tierra Subida Avenue</i>	7,810	5,574	13,384	2.3
<i>Tovey Avenue</i>				
<i>South of Avenue S</i>	281	1,321	1,602	7.6

Source: Noise Assessment for: Quail Valley Development, City of Palmdale prepared by Landrum & Brown dated January 16, 2018.

As indicated in **Table 4.13-5**, other notable noise increases are along Avenue S, west of Parkwood Drive (2.1 dB), along Avenue S between the Project entrance and Tovey Avenue (2.1 dB), along Avenue S between Tovey Avenue and 7th Street West (2.4 dB), and along Avenue S between 7th Street West and Tierra Subida Avenue (2.3 dB). All increases on these roadway segments are less than three dB. All increases on other roadway segments are 1.2 dB or less. The Noise Assessment data indicate the Project by itself will not significantly impact noise levels along any roadway segments. Therefore, “there will be no significant off-site traffic noise impacts due directly to the project.”

Traffic Noise – Future Year 2035

The following **Table 4.13-6 (Traffic Noise Level Increases – Future Year 2035 (dB CNEL))** shows traffic noise level increases in dB CNEL on each roadway segment affected by the Project for the Future 2035 Plus Project scenario. The increase in noise level is the difference between the Future 2035 No Project traffic volumes and the Future 2035 Plus Project traffic volumes. As noted, the greatest increase in traffic noise due to the Project is along Tovey Avenue south of Avenue S, which will see an increase of 7.0 dB. Existing noise exposure along this roadway segment is 39.6 dB CNEL at a distance of 100 feet. The increase in noise due to the Project and the increase in projected growth until 2035 will raise the noise level to 49.8 dB CNEL at a distance of 100 feet. Although the projected increase is significant (more than three dB), the resulting noise level will be less than 50 dB CNEL. This increase is well below the exterior noise standard of 65 dB CNEL. Therefore, the Noise Assessment prepared for the Project states “...there will be no significant off-site traffic noise impacts due directly to the project.”

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Table 4.13-6 – Traffic Noise Level Increases – Future Year 2035 (dB CNEL)				
<i>Roadway and Segment</i>	Future (2035) ADT	Project ADT	<i>Future (2035) + Project ADT</i>	<i>Increase in Noise Level (dB)</i>
<i>Avenue S</i>				
<i>West of Parkwood Drive</i>	1,310	676	1,936	1.8
<i>Project Entrance to Tovey Avenue</i>	8,887	4,649	13,536	1.8
<i>Tovey Avenue to 7th Street West</i>	9,017	5,574	14,591	2.1
<i>7th Street West to Tierra Subida Avenue</i>	9,334	5,574	14,908	2.0
<i>Tovey Avenue</i>				
<i>South of Avenue S</i>	333	1,321	1,654	7.0

Source: Noise Assessment for: Quail Valley Development, City of Palmdale prepared by Landrum & Brown dated January 16, 2018.

As indicated in **Table 4.13-7**, other notable increases are along Avenue S west of Parkwood Drive (1.8 dB), along Avenue S between the Project entrance and Tovey Avenue (1.8 dB), along Avenue S between Tovey Avenue and 7th Street West (2.1 dB), and along Avenue S between 7th Street West and Tierra Subida Avenue (2.0 dB). However, all the increases on these roadway segments are less than 3 dB, and all increases on other roadway segments are 1.0 dB or less. The Noise Assessment data indicate the Project by itself will not significantly impact noise levels along any roadway segments. Therefore, “there will be no significant off-site traffic noise impacts due directly to the project.”

The following **Table 4.13-7 (Future (2035) With Project Traffic Noise Levels)** shows distances to the Future (2035) With Project CNEL contours for roadways in the Project vicinity. Values shown under the 60 dB, 65 dB and 70 dB CNEL columns represent the distance from the centerline of the roadway to the respective contour value. The CNEL at 100 feet from the roadway centerline is also shown. The contours do not consider the effect of any noise barriers or topography that may reduce traffic noise levels. In addition, this table shows that traffic noise levels along major roadways will continue to be the dominant noise sources in the Project area. High noise levels will continue to occur along Elizabeth Lake Road, Palmdale Boulevard, Tierra Subida Avenue, and Avenue S, “but will be affected little by the project.” As the Traffic Assessment for the Project states, “in summary, no significant off-site traffic noise impacts will occur with the proposed project nor will any significant cumulative traffic noise impacts occur.”

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Environmental Impacts – Noise

Table 4.13-7 – Future (2035) With Project Traffic Noise Levels

Roadway and Segment	dB CNEL at 100 feet from Roadway Centerline	Distance to CNEL Contour from Centerline of Roadway (feet)		
		70 CNEL	65 CNEL	60 CNEL
Elizabeth Lake Road				
West of Ranch Center Drive	60.9	25	54	116
Ranch Center Drive to Highland Street	61.8	29	61	132
Highland Street to 10 th Street West	66.9	63	135	290
East of 10 th Street West	66.5	59	127	273
Ranch Center Drive				
South of Elizabeth Lake Road	53.9	8	18	39
Highland Street				
North of Elizabeth Lake Road	63.8	39	83	180
Palmdale Boulevard				
West of SR-14 Southbound Ramps	67.6	70	150	323
East of SR-14 Northbound Ramps	67.7	70	152	326
Tierra Subida Ave./10 th St. West				
North of Elizabeth Lake Road	67.1	65	139	300
Elizabeth Lake Road to Avenue Q-8	67.3	66	143	307
Avenue Q-8 to 5 th Street West	66.6	60	129	277
5 th Street West to Rayburn Road	67.2	65	141	303
Rayburn Road to Avenue S	66.0	54	117	252
Avenue S to Barrel Springs Road	59.6	20	43	93
South of Barrel Strings Road	43.1	2	3	7
Avenue Q-8				
East of Tierra Subida Avenue	56.3	12	26	57
5 th Street West				
East of Tierra Subida Avenue	57.5	15	31	68
Rayburn Road				
East of Tierra Subida Avenue	60.6	24	51	109
Barrel Springs Road				
East of Tierra Subida Avenue	56.3	12	26	57
Avenue S				
West of Parkwood Drive	57.3	14	31	66
Parkwood Drive to The Groves	61.2	26	56	121
The Groves to Project Entrance	66.0	54	117	253
Project Entrance to Tovey Avenue	67.5	69	148	318
Tovey Avenue to 7 th Street West	66.9	62	135	290
7 th Street West to Tierra Subida Ave.	67.0	63	137	294
Tierra Subida Ave. to SR-14 Southbound Ramps	67.2	65	141	303
SR-14 Northbound Ramps to 5 th Street East	69.1	87	188	406
East of 5 th Street East	69.4	91	196	421
Parkwood Drive				
North of Avenue S	52.6	7	15	32
South of Avenue S	50.8	5	11	24
The Groves				
North of Avenue S	55.8	11	24	53

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Table 4.13-7 – Future (2035) With Project Traffic Noise Levels

Roadway and Segment	dB CNEL at 100 feet from Roadway Centerline	Distance to CNEL Contour from Centerline of Roadway (feet)		
		70 CNEL	65 CNEL	60 CNEL
South of Avenue S	52.3	7	14	31
<i>Project Entrance</i>				
South of Avenue S	0.0	0	0	0
<i>Tovey Avenue</i>				
South of Avenue S	48.2	4	8	16
<i>7th Street West</i>				
North of Avenue S	41.1	1	3	5
<i>5th Street East</i>				
North of Avenue S	61.0	25	54	116

Source: Noise Assessment for: Quail Valley Development, City of Palmdale prepared by Landrum & Brown dated January 16, 2018.

Long-Term On-Site Impacts

The nearest proposed residential lots along Avenue S would be located approximately 145 feet from the roadway centerline. The unmitigated traffic noise level at this distance is projected to be approximately 65.1 dB CNEL. Mitigation Measures would be required because this exterior noise level would exceed the exterior noise standard of 65 dB CNEL. **Mitigation Measure MM-NOI-2** is included below to reduce noise impacts to the appropriate exterior noise standard for these residential lots.

Threshold NOI-2 Would the Project result in generation of excessive ground-borne vibration or ground-borne noise levels?

Less Than Significant Impact.

Construction Vibration

Construction activity can result in varying degrees of ground vibration, depending on equipment and methods used, distance to the affected structures, and soil type. It is expected that ground-borne vibration from Project construction activities would cause only intermittent, localized intrusion. Project construction activities most likely to cause vibration impacts include the following:

- Heavy Construction Equipment – Although all heavy mobile construction equipment has the potential of causing at least some perceptible vibration while operating close to buildings, the vibration is usually short-term and is not of sufficient magnitude to cause building damage.
- Trucks – Trucks hauling building materials to construction sites can be sources of vibration intrusion if the haul routes pass through residential neighborhoods on streets with bumps or potholes; repairing bumps and potholes generally eliminates the problem.

The distances between the Project development footprint are sufficiently great to prevent nearby residences from experiencing excessive ground-borne vibration or ground-borne noise levels. The resultant impact of Project development and operation will be less than significant.

Threshold NOI-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

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airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?

No Impact.

The proposed Project site is not located within the vicinity of a private airstrip or an airport land use plan or within two miles of a public airport or public use airport. The Palmdale Regional Airport is 6.3 miles northeast of the Project site. Therefore, Project development and operation would not expose people residing or working in the Project area to excessive noise levels from airport use. No impact would result.

Development on the LAFCO-approved non-Quail Valley properties proposed for annexation would require site-specific environmental analysis of potential impacts pertaining to CEQA-identified short-term (construction-related project development) and long-term (project operational) Noise topics for analysis. The non-Quail Valley areas within the overall annexation boundary include vacant lots, lots with existing housing, and the proposed Falcon Glen project area. Additional residential development in the Falcon Glen project area could add as many as 975 dwelling units and 3,510 residents. As the Falcon Glen project is undergoing a separate approval process, the Noise impacts of that project will be addressed as part of that project review. The Falcon Glen property area is currently vacant land.

4.13.5 CUMULATIVE IMPACTS

The proposed Project is consistent with Objectives and Policies enumerated in each element of the City of Palmdale General Plan and as contained in this document. Furthermore, the cumulative noise impacts of this particular project, in combination with the existing noise environment, is not significant in relation to the CEQA Thresholds of Significance. Construction noise would be temporary in nature and limited to the duration of the construction schedule; days of construction; hours of construction; and varied components of construction. In addition, Project cumulative operational long-term noise impacts to the existing ambient environment would not expose any sensitive receptors to significant high noise levels.

According to the City of Palmdale, there are 14 projects that are “in the pipeline” within approximately two miles of the approximately 878.1-acre Project site. Total build out of these projects will comprise of the following: 9,477 single-family detached residential units; 2,823 single-family attached residential units; 2,080 multi-family residential units; and 1,161,135 square feet of commercial space. The proposed Project would add 701 single-family detached residential units with an additional 29 single-family detached or multi-family residential units, depending on market demand. Therefore, the proposed Project represents up to 7.2 percent of the total single-family detached residential units at build out; 5.6 percent of the total cumulative single-family (detached and attached residential units); and 4.8 percent of the total cumulative number of residential units. This indicates a commensurate increase in average daily trips due to Project operation. However, Project development and operation, together with these 14 future projects within the vicinity of the Project site, will be required to comply with State of California and City of Palmdale laws and ordinances pertaining to noise. Compliance will result in less than significant cumulatively considerable impacts pertaining to noise.

Development on the LAFCO-approved non-Quail Valley properties proposed for annexation would require site-specific environmental analysis of potential cumulative impacts pertaining to CEQA-identified Noise topics (particularly long-term project operational impacts) for analysis. Additional residential development in the Falcon Glen project area could add as many as 975 dwelling units and 3,510 residents. The Falcon

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Glen project is undergoing a separate approval process. The Noise cumulative impacts of that project will be addressed as part of that project review. The Falcon Glen property area is currently vacant land..

4.13.6 LEVEL OF SIGNIFICANCE BEFORE MITIGATION

Short-Term Impacts

Construction noise impacts would be significant without some form of mitigation. Compliance with the City of Palmdale Noise Ordinance limitations of construction hours, as indicated in **Mitigation Measure MM-NOI-1** below, will assist in limiting noise emanating from Project development.

Long-Term Off-Site Impacts

The Noise Assessment prepared for the Project discussed above shows that the Project will not result in any significant long-term off-site traffic noise impacts and therefore no Mitigation Measures are required.

Long-Term On-Site Impacts

Exterior noise impacts due to traffic noise to the proposed residential lots located closest to Avenue S would be significant without mitigation. **Mitigation Measure MM-NOI-2** is included below to reduce traffic-related noise impacts to the appropriate exterior noise standard for these residential lots.

4.13.7 MITIGATION MEASURES

Short-Term Impacts – Construction Noise

MM-NOI-1 All construction activities within 200 feet of the residences on the westerly side of Tovey Avenue shall be limited to the hours between 7:00 a.m. and 7:00 p.m., Monday through Saturday. Construction activities for the balance of the Project shall be limited to the hours of 6:30 a.m. and 8:00 p.m., Monday through Saturday. Construction shall be prohibited during all other time periods and all day on Sundays and legal holidays. The contractor shall conduct construction activities in such a manner that the maximum noise levels at the affected buildings will not exceed those listed in Section 12.08.440(B)(1) of the County of Los Angeles Noise Ordinance.

Long-Term On-Site Impacts – Roadway Noise

MM- NOI-2 Prior to issuance of building permits, an acoustical analysis or a detailed acoustical study, if warranted based on post-grading conditions, shall be prepared by a qualified acoustical consultant and submitted to the City of Palmdale. The report shall describe and quantify noise sources impacting the lots on the north side of the Project adjacent to Avenue S, and the measures required to meet the appropriate exterior noise standard at these lots.

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All requirements of the detailed acoustical study shall be implemented at identified stages of Project development or Project operation.

4.13.8 LEVEL OF SIGNIFICANCE AFTER MITIGATION

With the implementation of **Mitigation Measures NOI-1** and **NOI-2**, all noise impacts identified will be reduced to a less than significant level.

4.14 Population and Housing

Information in this section was derived from the following: City of Palmdale General Plan, “Palmdale 2045”; Los Angeles County General Plan 2035 (October 6, 2015); United States Census Bureau – City of Palmdale Quick Facts; Southern California Association of Governments, “Profile of the City of Palmdale” (May 2019); and the Quail Valley Planned Development Project plans.

4.14.1 ENVIRONMENTAL SETTING

Population

United States Census Bureau

The United States Census Bureau estimated the population of the City of Palmdale on July 1, 2022 was 163,463.

Assuming 3.60 persons per household (the 2022 Census number of persons per owner-occupied household in the City of Palmdale), the proposed Project would generate a population of 2,628 persons.

Southern California Association of Governments and the California Department of Finance

The City of Palmdale’s population in 2000 was 116,670 persons, according to data from the Southern California Association of Governments (SCAG) and the California State Department of Finance (DOF). Oftentimes, SCAG and DOF data differ slightly from corresponding United States Census data. Thereby, SCAG found (using California Department of Finance estimates) that between years 2000 and 2021, the total population of the City of Palmdale increased from 116,670 to 163,463 persons, which is an increase of 46,793 persons. During this 18-year period, the City experienced a growth rate of 42.7 percent, which was more than four times the population growth rate of Los Angeles County during that period.

The 2021 SCAG Local Profile dataset for the City of Palmdale estimated the 2020 total population of Palmdale to be 156,910, with an estimated average household size of 2.92 persons per the Census.gov 2017-2021 quick facts. According to this ratio, the Project would generate an additional residential population of 2,628 at build-out.

Housing Units

United States Census Bureau

The United States Census Bureau estimated the number of housing units in 2018 to be 47,320.

Southern California Association of Governments and the California Department of Finance

SCAG estimated the number of dwelling units in the City of Palmdale in the year 2018 was 47,055 dwelling units and the 2018 City population to be 158,905, which is a ratio of 3.38 persons per dwelling unit. Additionally, SCAG estimated that between years 2000 and 2018, the total number of households in the City of Palmdale increased by 9,595 units, or 28 percent.

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Environmental Impacts – Population and Housing

SCAG also indicated that the City of Palmdale issued 143 residential building permits in 2018. This figure is comprised of 62 permits that were issued for single-family units and 81 permits for multi-family residential units.

The following **Table 4.14-1 (Housing Types in 2018)** indicates the types of residential units comprising the City of Palmdale housing stock in 2018.

Table 4.14-1 – Housing Types in 2021		
<i>Housing Type</i>	<i>Number of Units</i>	<i>Percent of Total Units</i>
<i>Single-Family Detached</i>	<i>37,273</i>	<i>78.7%</i>
<i>Single-Family Attached (Condo)</i>	<i>854,854</i>	<i>1.8%</i>
<i>Multi-Family, 2-4 units</i>	<i>1,416</i>	<i>0.0% 2.9%</i>
<i>Multi-Family, 5+ units</i>	<i>5,653</i>	<i>11.9%</i>
<i>Mobile Home</i>	<i>2,157</i>	<i>4.5%</i>
<i>Total</i>	<i>47,353</i>	<i>100%</i>

Source: City of Palmdale Draft 2021-2029 Housing Element (September 3, 2021)

Palmdale is a relatively young community with almost 80 percent of its housing stock built after 1980, according to the 2013-2017 American Community Survey (ACS) estimates. Housing that is over 30 years old is typically likely to need rehabilitation including new plumbing, roof repairs, or other extensive needs. According to the ACS, approximately 53 percent of housing units in the City of Palmdale were built before 1990, and therefore are more likely to need rehabilitation or repairs done on these homes.

Employment

SCAG estimated the total number of jobs in the City of Palmdale was 37,206 in year 2017. That year, the Education sector was the largest job sector, accounting for 27.7 percent of total jobs in the City. Other major sectors included Retail (19.9 percent), Leisure (16.2 percent), and Professional (8.7 percent). Construction jobs involving building construction, heavy and civil engineering construction, and specialty trade contractors in the City accounted for 3.3 percent of the total employment in the City of Palmdale that year.

4.14.2 REGULATORY FRAMEWORK

Local Regulations

City of Palmdale General Plan (Palmdale 2045)

A General Plan Consistency Assessment of Palmdale 2045 Goals and Policies, relevant to the Quail Valley Population and Housing analysis is contained in **Appendix A** of this EIR. Following are Envision Palmdale 2045 Goals and Policies relevant to the Quail Valley Project.

Land Use and Community Design Element

Goal LUD-22: **Neighborhoods with a range of housing opportunities that allow people of all ages, abilities, socio-economic status, and family size to live in Palmdale.**

Policy LUD-22.5: **Varying Housing Types.** Encourage and allow a variety of housing types

developed at a range of densities to serve varying household types, including, but not limited to, single-family attached and detached, **accessory** dwelling units, multifamily apartments, townhomes, duplexes, triplexes, quadplexes, and condominiums.

Economic Development Element

Goal ED-5: **Diversify housing options for residents at different stages of life and ability, to continue making Palmdale an affordable place to live.**

Policy ED-5.2: **Supply and Diversity of Housing.** Increase the supply and diversity of housing options to support different types of households including seniors, young adults, families, empty nesters, individuals or families with special needs, and multi-generational families.

Equitable and Healthy Communities Element

GOAL EHC-6: **Promote neighborhoods with a range of housing opportunities that provide housing opportunities for people of all ages, abilities, socio-economic status, family structure and size.**

Policy EHC-6.2: **Housing Diversity.** Encourage a variety of housing types developed at a range of densities to serve varying household types, including, but not limited to, single-family attached and detached, accessory dwelling units, multi-family apartments, townhomes, duplexes, triplexes, quadplexes, and condominiums.

Policy EHC-6.3: **ADA Compliant Housing.** Facilitate housing for older adults, special needs groups, including the developmentally disabled, and non-traditional family groups by allowing a diverse range of housing configurations that are Americans with Disabilities Act (ADA) compliant and flexible.

Policy EHC-6.4: **Aging in Place.** Promote development of housing types that support multi-generational households and opportunities to age in place.

Goal EHC-7: **A City that preserves and expands its supply of affordable housing.**

Policy EHC-7.4: **Affordability Period.** Require that all units developed under any of the City affordable housing programs remain affordable for the longest possible time or at least 30 years.

Goal EHC-8: **A City that encourages the construction and maintenance of safe, sanitary, and health-promoting housing.**

Housing Element

Goal 1: **Promote the construction of a variety of residential development opportunities for all income groups.**

- Encourage the production of housing for all segments of the City's population, including all income levels (including extremely low-income households) and those with special needs.
- Encourage a variety of housing types such as single-family attached (townhomes), multi-family units, planned unit developments, mixed-use housing, and other housing types to fulfill regional housing needs.
- Encourage the development of new affordable units through the provision of incentives.
- Encourage the development of housing that is affordable to lower income groups in areas well served by public transportation, schools, retail, and other services.

Goal 4: Promote equal housing for all persons regardless of their special characteristics as protected under State and Federal fair housing laws

- Ensure that mixed income housing is focused in areas that have access to transit and resources, specifically in Residential Neighborhoods of RN2 and above and all the Mixed-Use Districts.
- Provide fair housing services that include public information, counseling, and investigation.

Goal 5: Facilitate adequate housing for households with special needs

- Permit a variety of housing types for seniors including dependent housing units and congregate housing with supportive services.
- Recognize the unique characteristics of elderly and disabled households and address the special needs of these households.
- Establish and maintain standards for units designated as senior units to ensure that they are accessible and convenient for older persons and persons with disabilities.

Goal 7: Increase access to safe and adequate housing for people with disabilities

- Ensure access for the disabled in residential, commercial, and public structures.
- Educate property managers about the reasonable accommodation provisions of the American s with Disabilities Act and Federal and State fair housing laws through the Partners Against Crime program and the fair housing services provider.

Goal 8: Implement energy and water conservation measures

- Ensure that energy and water conservation measures are included in all new development and redevelopment projects using an energy conservation checklist.
- Inform the public about retrofitting their homes with energy and water conservation measures.
- Incorporate native desert vegetation as a condition of approval for all proposed housing projects.

Goal 10: Promote neighborhood versatility by encouraging a mix of new housing alternatives to increase affordability and promote home ownership

- Encourage voluntary inclusionary housing by offering incentives to developers.
- Evaluate the feasibility of small lots, reduced setbacks or other modifications to reduce cost of development.
- Encourage mixed-use housing in designated areas along transportation corridors and other commercial areas.

4.14.3 THRESHOLDS FOR DETERMINING SIGNIFICANCE

According to Appendix G of the CEQA Guidelines, a project will normally have a significant adverse environmental impact on Population or Housing resources if it would:

- Threshold POP-1** 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).
- Threshold POP-2** Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere.

4.14.4 ENVIRONMENTAL IMPACT

Impact Analysis

- Threshold POP-1** Would the Project 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)?

Less Than Significant Impact.

The proposed Project would result in direct population growth within the City of Palmdale. The Project would develop up to 730 homes, which translates to a population of 2,628 residents when assuming 3.60 persons per household. When the Project population is added to the latest City population as estimated by the United States Census Bureau on July 1, 2019, the resulting population is 157,707 residents. This represents a 1.7 percent increase in total population in the City. For the purpose of developing the Regional Housing Needs Allocation (RHNA), SCAG's Growth Forecast for the City of Palmdale in the year 2045 is projected to be 61,798

- Threshold POP-2** Would the Project displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?

No Impact.

The Project site is currently vacant with no existing homes. Therefore, Project development and operation would not result in displacing any people or housing. No impact would result.

Development on the LAFCO-approved non-Quail Valley properties proposed for annexation would require site-specific environmental analysis of potential impacts pertaining to CEQA-identified Population and

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Housing topics for analysis. The non-Quail Valley areas within the overall annexation boundary include vacant lots, lots with existing housing, and the proposed Falcon Glen project area. It can be anticipated that residential development would occur in Annexation areas and thereby would result in direct growth of population in those areas to be annexed to the City of Palmdale. Additional residential development in the Falcon Glen project area could add as many as 975 dwelling units and 3,510 residents. This would necessitate construction of new or expanded infrastructure in the vicinity of the Annexation area, including multiple accesses to the Falcon Glen project site to its adjacent neighboring Anaverde Nuevo Specific Plan area, including continuing Cherry Blossom Street and Tangerine Street from Anaverde Nuevo to Falcon Glen. The Falcon Glen property area is currently vacant land..

4.14.5 CUMULATIVE IMPACTS

According to the City of Palmdale, there are 14 projects that are “in the pipeline” within approximately two miles of the 878.1-acre Quail Valley Project site. Total residential build out of these projects will comprise of the following: 9,477 single-family detached residential units; 2,823 single-family attached residential units; and 2,080 multi-family residential units. The proposed Project would add 701 single-family detached residential units with an additional 29 single-family detached or multi-family residential units, depending on market demand, for a grand total of 15,110 dwelling units. Based on an occupancy rate of 3.60 persons per household, the corresponding population would be 54,396 future residents. Based on the current levels reported by the Department of Finance, the Project would represent less than one percent of the increase in housing and population anticipated by the General Plan.

The City of Palmdale adopted EIR 11-01 (State Clearinghouse No. 2012011007) in conjunction with the City’s 5th cycle Housing Element. EIR 11-01 identified potential significant impacts related to Aesthetics and Light and Glare, Archaeology, Biology, Geology, Housing, Hydrology, Land Use, Paleontology, Population, and Public Health and Safety. The Planning Commission also approved a Statement of Overriding Considerations in conjunction with the original approval. City Planning staff reviewed EIR 11-01 to determine whether the 6th cycle Housing Element would trigger any conditions described in CEQA Guidelines Sections 15162, 15163, or 15164 and determined the draft 6th cycle Housing Element did not propose significant revisions to the 5th cycle Housing Element. In addition, staff determined there were no significant changes in circumstance than no new information of substantial importance that would involve new significant environmental impacts or that would increase the severity of previously identified significant impacts. Thereby, in accordance with CEQA Guidelines Section 15164 an addendum to EIR 11-01 was prepared and identified no new or additional significant environmental impacts that were not addressed previously in EIR 11-01.

Development on the LAFCO-approved non-Quail Valley properties proposed for annexation would require site-specific environmental analysis of potential cumulative impacts pertaining to CEQA-identified Population and Housing topics for analysis. It can be anticipated that residential development would occur in Annexation areas and, thereby, would result in direct growth of population in those areas to be annexed to the City of Palmdale. Additional residential development in Falcon Glen could add as many as 975 dwelling units and 3,510 residents. As a result, additional cumulative impacts on Population and Housing could result from proposed non-Quail Valley annexation areas. The Falcon Glen property area is currently vacant land..

4.14.6 LEVEL OF SIGNIFICANCE BEFORE MITIGATION

Project development and operation will result in a less than significant impact related to Population and Housing. Project development will assist the City of Palmdale to provide housing in furtherance of satisfying the City's RHNA requirements. Therefore, Project development and operation will result in a positive impact related to Population and Housing.

4.14.7 MITIGATION MEASURES

No Mitigation Measures are required.

4.14.8 LEVEL OF SIGNIFICANCE AFTER MITIGATION

Project development and operation will result in a less than significant impact related to Population and Housing. Project impact will be positive, and no Mitigation Measures are required, as indicated above.

4.15 Public Services

The analysis in this section is derived from the following: City of Palmdale General Plan, “Palmdale 2045”; Palmdale 2045 EIR; City of Palmdale Municipal Code; County of Los Angeles General Plan; communications with public services providers; City of Palmdale Public Safety & Community Relations, “Emergency Operations Plan Executive Summary” (2012); and the Quail Valley Planned Development Project Plans.

4.15.1 ENVIRONMENTAL SETTING**Fire Protection**

The Los Angeles County Fire Department (LACoFD) provides fire protection service for the City of Palmdale. The following **Table 4.15-1 (Los Angeles County Fire Department Stations Serving the City of Palmdale)** lists the five fire stations in the City of Palmdale that are operated by LACoFD and are categorized under the North Regional office, Division Five, within Battalions 11 and 17.

Table 4.15-1 – Los Angeles County Fire Department Stations Serving the City of Palmdale			
<i>Fire Station Number</i>	<i>Address</i>	<i>Staff</i>	<i>Equipment</i>
24	1050 West Rancho Vista Boulevard Palmdale, CA 93551	21 Firefighters	1 Engine 1 Quint
37	38318 East 9 th Street East Palmdale, CA 93550	15 Firefighters	1 Engine 1 Paramedic Squad
93	5624 East Avenue R Palmdale, CA 93550	21 Firefighters	(Battalion 17 Headquarters) 1 Engine 1 Paramedic Squad
131	2629 East Avenue S Palmdale, CA 93550	15 Firefighters	1 Engine 1 Paramedic Squad
136	3650 Bolz Ranch Road Palmdale, CA 93551	18 Firefighters	1 Engine 1 Urban Search and Rescue 1 Rescue Tender

Source: Dave Ponti, Captain, personal communication, September 2020.

Fire protection services are financed through property tax assessments. The LACoFD also receives mutual aid from the United States Forest Service. All manpower and resources of the Department support the fire stations in Palmdale.

The fire prevention office in the City of Lancaster and in the Palmdale City Hall is responsible for reviewing new development applications and building permits to ensure new construction projects adhere to Fire Code requirements which include fire retardant materials, water storage tanks, fire hydrants, sprinkler systems, fire alarms, and fire escapes. In addition, fire protection requires a ready source of water. Fire suppression water flow requirements are calculated together with domestic requirements to ensure adequate availability of water to meet domestic and emergency needs. Staff from individual fire stations conduct on-site inspections of new construction and conduct annual inspections of existing structures to ensure compliance with the Fire Code. The Fire Protection Office also conducts information programs for the community about fire safety and fire protection. Furthermore, the LACoFD receives mutual aid from the U.S. Forest

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Service. The Forest Service’s responsibilities include erosion control, watershed management, rare and endangered species, vegetation, fuel modification for Very High Fire Hazard Severity Zones, archaeological and cultural resources, and the County Oak Tree Ordinance.

As shown in the following **Table 4.15-2 (Average Incident Response Times for the City of Palmdale)** and according to the Palmdale 2045 EIR response times for structural fires, mobile property/vehicle fires, and heart attacks/chest pain have decreased and response times for grass fires, motor vehicle accidents and difficulty breathing have increased since 2015. However, all response times are within the LACoFD’s response time goal of four to six minutes for on scene arrival.

Table 4.15-2 – Average Incident Response Times for the City of Palmdale Los Angeles County Fire Department				
<i>Category</i>	<i>2015</i>	<i>2016</i>	<i>2017</i>	<i>2018</i>
<i>Structure Fire</i>	<i>4.82</i>	<i>4.48</i>	<i>4.66</i>	<i>4.55</i>
<i>Grass Fire</i>	<i>6.09</i>	<i>5.55</i>	<i>5.64</i>	<i>5.91</i>
<i>Mobile Property / Vehicle Fire</i>	<i>5.90</i>	<i>5.62</i>	<i>5.19</i>	<i>4.32</i>
<i>Motor Vehicle Accident</i>	<i>5.15</i>	<i>5.21</i>	<i>5.09</i>	<i>5.26</i>
<i>Heart Attack/Chest Pain</i>	<i>5.73</i>	<i>5.68</i>	<i>5.64</i>	<i>5.45</i>
<i>Difficulty Breathing</i>	<i>5.77</i>	<i>5.72</i>	<i>5.46</i>	<i>5.54</i>

Source: Los Angeles County Fire Department and Palmdale 2045 EIR

Law Enforcement

The Los Angeles County Sheriff’s Department contracts with the City of Palmdale to provide law enforcement services to the City. The Palmdale Sheriff’s Station is located at 750 East Avenue Q and serves the following 15 communities including Palmdale: Acton, Agua Dulce, Big Pines / Wrightwood, Green Valley, Juniper Hills, Lake Elizabeth, Lake Hughes, Leona Valley, Littlerock, Llano, Pearblossom, Sun Village, Valyermo, and Vasquez Rocks. The Station facilities occupy 11.5 acres and include a 47,000 square foot main building, a 7,800 square foot jail, an 8,399 square foot motor pool, and a storage building. The Sheriff’s Station is currently staffed by 247 personnel, including 192 sworn officers and 55 non-sworn personnel. Law enforcement planning generally assumes one to four officers per 1,500 population, with ratios decreasing as the population increases. In addition to population, police protection ratios consider the service area crime rate, size, resources and desired level of service. Based on the City’s estimated July 2021 population of 156,074 (as indicated in Table 1: Population Growth [2000-2021] of the draft 2021-2029 Housing Element), the ratio within the City of Palmdale is approximately 1.85 officers per 1,500 residents. The City of Palmdale conducts an annual review of its contract with the Sheriff’s Department to ensure services will be adequate for its needs.

During February 2020, the Palmdale Sheriff’s Department received a total of 4,973 calls. As shown on the following **Table 4.15-3 (Palmdale Sheriff’s Station’s Average Response Times (February 2020))**, the Sheriff’s Department’s response time goals and average response times per call type are listed. Given the Department’s geographically large jurisdictional area, Category 1: Emergency/911 Calls should be responded to within 10 minutes, Category 2: Priority Calls should be responded to within 20 minutes, and Category 3: Routine Calls should be responded to within 120 minutes. In the month of February 2020, the Sheriff’s Department surpassed each response time goal, with average response times being 5.1 minutes, 15.5 minutes, and 88.5 minutes, for each of the three call type categories, respectively.

Table 4.15-3 – Palmdale Sheriff's Station's Average Response Times (February 2020)		
<i>Call Type</i>	<i>Response Time Goal</i>	<i>Average Response Time</i>
<i>Category 1: Emergency/911 Call</i>	<i>10 Minutes</i>	<i>5.1 Minutes</i>
<i>Category 2: Priority Call</i>	<i>20 Minutes</i>	<i>15.5 Minutes</i>
<i>Category 3: Routine Call</i>	<i>120 Minutes</i>	<i>88.5 Minutes</i>

Source: Christina DeCarlo, Training and Scheduling, Palmdale Sheriff's Station, personal communication, September 2020.

Unincorporated areas surrounding the City receive traffic enforcement services from the California Highway Patrol. The Antelope Valley Office of the Highway Patrol is located at 2041 West Avenue "I" in Lancaster. The Highway Patrol is responsible for patrolling 30 miles of State Route -14 (SR-14) from Acton to the Kern County line and approximately 1,400 miles of roadways throughout the Antelope Valley. The Sheriff's Department and Highway Patrol provide emergency backup for one another.

Schools

Primary and secondary school facilities are provided throughout the City of Palmdale by several school districts and collegiate institutions. These districts include:

- *Palmdale School District* – The Palmdale School District serves the central developed core of the City and the Project site and Project vicinity, and has 17 elementary school sites, five middle/academy school sites, two dual immersion school sites and five specialty school sites;
- *Westside Union School District* – The Westside Union School District serves most of the western portion of Palmdale and has 13 campuses, 10 of which are elementary school sites and three of which are intermediate schools;
- *Antelope Valley Union High School District* – The Antelope Valley Union High School District serves the entirety of Palmdale and the Project site, and has nine high school campuses, three junior high school academies, three alternative high school campuses, and one adult education campus; and,
- *Antelope Valley Community College District* – Antelope Valley Community College is located in the City of Lancaster, and the District encompasses approximately 2,000 square miles, including the Project site.

In addition to traditional elementary education, the districts also offer resource specialist programs, and provide classes for children with special needs, courses in language and speech, home classes, and hospital classes.

Students residing at the proposed Project would attend public schools within the Palmdale School District for Transitional Kindergarten through Grade 8, and the Antelope Valley Union High School District for Grades 9 through 12. Seven elementary schools, three intermediate schools, and two high schools are located within five miles of the Project site.

As shown on the following **Table 4.15-4 (School Enrollment and Capacity (2022-2023))**, all Palmdale School District elementary schools located within five miles of the Project site have at least 392 seats available, for a total of 2,860 seats. The three Palmdale School District Middle Schools have at least 122 available seats at each school for a total of 337 available middle school seats. For the Antelope Valley

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Union High School District schools, current enrollment, and capacity at each individual school serving the Project site, a total 1,806 available high school seats.

Table 4.15-4 – School Enrollment and Capacity (2022-2023)			
<i>School</i>	<i>Enrollment</i>	<i>Maximum Capacity</i>	<i>Available Seats</i>
<i>Palmdale School District¹</i>			
<i>Summerwind Elementary (TK-5)</i>	588	990	402
<i>Ocotillo Elementary (TK-5)</i>	591	1,050	459
<i>Yucca Elementary (TK-5)</i>	466	1,020	554
<i>Palm Tree Elementary (TK-5)</i>	508	900	392
<i>Tumbleweed Elementary (TK-5)</i>	591	1,200	609
<i>Desert Rose Elementary (TK-5)</i>	610	1,200	5890
<i>Tamarisk Elementary (TK-5)</i>	730	1,140	410
<i>Elementary Schools Subtotal</i>	4,640	7,500	2,860
<i>David G. Millen Magnet Academy (6-8)</i>	953	1,290	337
<i>SAGE Magnet Academy (6-8)</i>	802	1,500	698
<i>Desert Willow Magnet Academy (6-8)</i>	664	1,110	446
<i>Middle Schools Subtotal</i>	3,073	3,900	827
<i>Elementary and Middle Schools Total</i>	14,216	22,800	8,584
<i>Antelope Valley Union High School District²</i>			
<i>Palmdale High School</i>	2,505	3,408	903
<i>Highland High School</i>	2,844	3,747	903
<i>High Schools Total</i>	5,349	7,155	1,806

Sources:

Koppel & Gruber, "Palmdale School District, School Fee Justification Study," March 13, 2020.

Niche.com Inc., "Palmdale School District," <https://www.niche.com/k12/search/best-schools/t/palmdale-dauphin-pa/>, 2023

California Department of Education, "School Plan for Student Achievement, SAGE Magnet Academy-Space Aeronautics Gateway to Exploration Academy," August 16, 2022

² Cooperative Strategies, "School Facilities Needs Analysis, Antelope Valley Union High School District," August 7, 2020.

Parks

The City of Palmdale Parks and Recreation Department maintains and operates programming of various parks and recreation facilities within Palmdale. In addition, the Parks and Recreation Department coordinates recreational activities within the City in cooperation with public agencies. These recreational activities include programs for children, youth, teens, adults and seniors offered on a regular basis.

Palmdale has 20 parks totaling 365 acres.

The following is a list of parks and their acreage in Palmdale.

- American Indian Little League Fields (5 acres)
- Anaverde Hills Park (6 acres)
- Arnie Quinones Park (10 acres)
- Desert Sands Park (20 acres)
- Domenic Massari Park (37 acres)
- Dr. Robert C. St. Claire Parkway (8 acres)
- Foothill Park (12 acres)
- Joe Davies Heritage Airpark (25 acres)
- Joshua Hills Park (4 acres)

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- Legacy Commons Park (1 acre)
- Manzanita Heights Park (4 acres)
- Marie Kerr Park (77 acres)
- Melville J. Courson Park (5 acres)
- Palmdale Oasis Park (29 acres)
- Palmdale Youth Pony League Fields (5 acres)
- Pelona Vista Park (76 acres)
- Poncitlan Square (2 acres)
- Sam Yellen Community Park and Dog Park (25 acres)
- Tejon Equestrian Park (20 acres)
- William J. McAdam Park (19 acres)

Library Services

The City operates the Palmdale City Library, located at 700 East Palmdale Boulevard. According to Library Director Robert Shupe, this library has a collection of 83,668 books and other materials in a building with a gross floor area of 12,790 square feet. The City Library offers book-lending privileges, audiovisual materials, internet access, periodicals, Palmdale historical information, an adult literacy program, computers, microfiche, maps, and videos. The Library is staffed by eight full-time employees and eight part-time employees. The City Library also has a Techmobile and KNOW Mobile to provide resources and services to the outlying, underserved areas of the community, as well as to deliver basic library services at City events, schools and other community outreach opportunities.

In 2017, the Palmdale City Library joined the Inland Library Network, which provides access to more than 3.5 million books, movies, and audiobooks from participating libraries located in Inyo County, Riverside County, and Moreno Valley; and individual libraries including Moorpark City Library, Murrieta Public Library, Simi Valley Public Library, and Upland Public Library. Patrons are able to search for and request materials via an online catalog, and pick up couriered materials at the Palmdale City Library at their convenience.

In addition to these services, there are five Los Angeles County branch libraries located nearby, including the Quartz Hill Library in Quartz Hill to the northwest, the Lancaster Library in Lancaster to the northeast, the Lake Los Angeles Library in Palmdale to the east, the Littlerock Library in Littlerock to the southeast, and the Acton Agua Dulce Library in Acton to the southwest.

Public Library Standards

There is no national standard for library size. However, generally library size should be 0.80 square feet per capita. Public library standards for library service are as follows:

1. The library site should be readily accessible to all residents. Travel time to the library should not exceed 15 minutes one-way by car. Where travel times to the library's principal facility exceed these limits, branches or outlets or alternative means of providing access (bookmobiles; books by mail) should be considered.
2. Quantitative criteria for standard space and service are:
 - a. 2.5 volumes per capita;
 - b. 8.5 periodicals per 1,000 population;
 - c. 0.5 staff per 1,000 population;

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- d. five reader's seats per 1,000 population;
- e. one parking space for every two adult seats, supplemented by additional parking space for all meeting rooms and staff;
- f. 125 square feet per staff for workroom space; and,
- g. 10 percent of the gross square footage of the library building should be devoted to storage space.

4.15.2 **REGULATORY FRAMEWORK**

Local Regulations

City of Palmdale Emergency Operations Plan

The City of Palmdale Emergency Operations Plan addresses the City's planned response and short-term recovery to extraordinary emergency/disaster situations associated with natural disasters, technological incidents, and national security emergencies. The Emergency Operations Plan does not address normal day-to-day emergencies or the well-established and routing procedures used in coping with such emergencies. Rather, operational concepts reflected in this plan focus on potential large-scale disasters that can generate unique situations regarding unusual responses. The Emergency Operations Plan is designed to include the City of Palmdale as part of the Los Angeles Operational Area, California Standardized Emergency Management System (SEMS) and National Incident Management System (NIMS). The Emergency Operations Plan provides basic planning information; City departments must prepare standard operating procedures. The Emergency Operations Plan is organized into two parts and an appendix. Part One (Basic Plan) contains the overall organizational and operational concepts relative to response and recovery, as well as an overview of potential hazards. Part Two (Emergency/Disaster Response Organization Functions) describes the emergency/disaster response organization, checklists and reference material. The Appendix is a restricted document that contains the emergency/disaster organization's notification numbers and other essential numbers.

The following are Emergency Operations Plan assumptions:

- The City of Palmdale is primarily responsible for emergency/disaster actions and will commit all available resources to save lives, minimize injury to persons, and minimize damage to property;
- The City of Palmdale will utilize SEMS and NIMS in emergency/disaster response operations;
- The Director of Emergency Services, the City Manager, will coordinate the City's disaster response in conformance with its Emergency Services Ordinance. The City of Palmdale will participate in the Los Angeles County Operational Area;
- The resources of the City of Palmdale will be made available to local agencies and citizens to cope with disasters affecting this area;
- The City will commit its resources to a reasonable degree before requesting mutual aid assistance; and,
- Mutual aid assistance will be requested when disaster relief requirements exceed the City's ability to meet them.

The stated Emergency/Disaster Management Goals are as follows:

- Provide effective life safety measures, reduce property loss and protect the environment;
- Provide for the rapid resumption of impacted businesses and community services; and
- Provide accurate documentation and records required for cost recovery efforts.

The SEMS/NIMS Emergency Operations Plan would be activated on the following:

- On the order of the Director of Emergency Services who is designated by the City of Palmdale Municipal Code, Chapter 2.28, provided that the existence or threatened existence of a Local Emergency has been proclaimed in accordance with the Ordinance;
- When the Governor has proclaimed a State of Emergency in an area including this jurisdiction;
- Automatically on the proclamation of a State of War Emergency as defined California Emergency Services Act (Chapter 7, Division 1, Title 2, California Government Code);
- A Presidential declaration of National Emergency; or
- Automatically on receipt of an attack warning or the observation of a nuclear detonation.

City of Palmdale General Plan (Palmdale 2045)

A Consistency Assessment of Palmdale 2045 Goals and Policies relevant to the Quail Valley Project Population and Housing analysis is contained in **Appendix A** of this EIR. Following are Palmdale 2045 Goals and Policies relevant to the Quail Valley Project.

Land Use and Community Design Element

Policy LUD-5.3: **Public Services in New Neighborhoods.** Require new developments to be designed for and provided with adequate public services and infrastructure. Require that these public facilities and services be provided concurrently with development to ensure a high quality of life for residents.

Public Facilities, Services, and Infrastructure Element

Goal PSFI-2: **Maintain Superior Public Safety Services to Protect the Community and Meet the Need of Residents, Businesses, and Visitors.**

Policy PFSI-2.1: **Response Times.** Maintain existing or superior average response times for fire and police services as the City's population expands.

Policy PFSI-2.4: **County Sheriff Coordination.** Coordinate with the Los Angeles County Sheriff's Department to ensure that service availability, resources, and staffing are appropriate for the community need.

Policy PFSI-2.5: **County Fire Coordination.** Coordinate with the Los Angeles County Fire Department to ensure that service availability, resources, and staffing is appropriate for the community need.

Policy PFSI-5.3: **Off-Site Fair Share Contribution.** Require all new development, including major modifications to existing development, to construct or provide a fair share contribution toward construction of required off-site improvements, needed to support the project. This includes a fair share contribution toward

development of regional master facility plans for roads, sewer, water, drainage, schools, libraries, parks, fire, and other community facilities, prior to granting approval of development applications.

Policy PFSI-5.7: **Adjacent Development Integration.** Require that individual development projects integrate with adjacent development with respect to backbone infrastructure (streets, sewer, water, and drainage). If adjacent property is undeveloped, a conceptual plan should be prepared to show that the pending development will allow for future integration and development of adjacent properties in a manner which is reasonable from a design, construction, and cost standpoint.

Safety Element

Policy SE-2.9: **Development Requirements.** As part of the city's development review process, require that all new buildings and facilities comply with Los Angeles County, state, and federal regulatory standards such as the California Building and Fire Codes as well as other applicable fire safety standards and work with the Fire Department to ensure the provision of adequate fire stations, personnel, and equipment to meet the City's needs over time.

Policy SE-2.10: **Water System Requirements.** Require all new development to be served by a water system that meets applicable fire flow requirements.

Policy SE-8.4: **Legible Signs.** Require all residences and businesses to maintain visible and clearly legible signs and/or street numbers to shorten the response times of emergency personnel.

Goal SE-9: **Improve Public Safety.**

Policy SE-10.3: **Maximize Safety and Security.** Through the development review process, ensure that sites are designed in order to maximize safety and security, considering such factors as visibility, lighting, emergency access, legibility of street numbers, and fencing.

Policy SE-10.3: **Maximize Safety and Security.** Through the development review process, ensure that sites are designed in order to maximize safety and security, considering such factors as visibility, lighting, emergency access, legibility of street numbers, and fencing.

4.15.3 THRESHOLDS FOR DETERMINING SIGNIFICANCE

According to Appendix G of the CEQA Guidelines, a project will normally have a significant adverse environmental impact on public services if it would:

Threshold PS-1 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 serviced ratios, response times or other performance objectives for any of the following public services: Fire Protection; Police Protection; Schools; Parks; or Other Public Facilities.

4.15.4 ENVIRONMENTAL IMPACT

Impact Analysis

Threshold PS-1 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 serviced ratios, response times or other performance objectives for any of the following public services: Fire Protection; Police Protection; Schools; Parks; Other Public Facilities?

Less Than Significant Impact.

Fire Protection

Project development and operation would increase fire protection and emergency needs typical of a residential project. These services would include responses to structural fires, garbage bin fires, vehicle fires, and electrical fires. As indicated in Section 4.9 (Hazards and Hazardous Materials) of this EIR, residential and recreational nature of the Project would generally not involve hazardous uses or activities not associated with general residential development that would cause fires or result in serious injury.

In addition, the Project site has been largely vacant, except for existing utility facilities and dirt roadway access. Based on a review of a current California Division of Oil, Gas and Geothermal Resources (DOGGR) oil well location map, two oil wells, Raymond D. Weller and Silver Leaf Oil Company's "Realty Title Co.," have existed near the northwestern boundary of the Project site. Both wells are reported as abandoned and plugged dry-holes in 1950. Carlin Environmental Consulting Inc. reviewed records for the wells online. The Raymond D. Weller well is located approximately 1,300 feet south and 1,900 feet west of the northeastern corner of Tovey Avenue and Avenue S, very close to the northern boundary of the Project site. The Project site is adjacent to Special Studies Zones for the Nadeau Fault and the San, Andreas Fault. The Nadeau Fault is located approximately 500 feet north of the Project site and is a branch of the San Andreas Fault that is approximately 3,000 feet north of the Project site. These faults are considered active. Hazardous materials may be released into the environment and exposure to strong shaking may result from seismic activity. However, with implementation of **Mitigation Measures MM-HAZ-1, MM-HAZ-2, and MM-HAZ-3** this impact will be reduced to a less than significant level. These Mitigation Measures would require removal of subsurface soil contamination that may be discovered during Project grading activities, California Department of Oil, Gas and Geothermal Resources review of precise locations of oil wells, and notification of any minor spills and casing/slugs from spent ammunition. This topic is discussed in detail in Section 4.9 (Hazards and Hazardous Materials) of this EIR. It is important to recognize that for this EIR Section, it is determined that no new fire protection facilities would need to be constructed. Hence, no Mitigation Measures are provided that apply strictly to this Threshold of Significance.

The Quail Valley property is located within the Very High Fire Hazard Severity Zone. The project has

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been designed to incorporate direct vehicular access to almost every portion of the project perimeter. Where direct vehicular traffic is not provided, access is provided by incorporation of existing, utility company maintained, dirt roadways and short distance direct access from improved roadways. Additionally, the project is developed primarily in the lower, central portion of the valley, thereby locating housing at the downhill side of the open space areas.

The Quail Valley community will comply with all health and safety regulations and requirements of the City of Palmdale and the LA Fire Department pertaining to wildfire hazards. Among these, the project will incorporate and enforce standards for construction, including a Fuel Modification Program (i.e., brush clearance, planting of fire-retardant vegetation) to reduce the threat of wildfires. A project specific Fire Protection Plan will analyze and provide recommendations for establishing Firesafe Zones. Though specific elements of the program are to be determined in coordination with the City and with LA County Fire Department based on site specific conditions, it is anticipated that a three-tiered Fuel Modification Program (with Zone A: near house conditions being the most fire resistive zone, followed by Zone B: Wet zone; then Zone C: brush modification zone) could be one method of achievement. A 200-foot overall buffer zone is not unusual. There are site conditions which will influence the Fire Protection Plan. For instance, a portion of the project (in Planning Area 2) backs up directly to the California Aqueduct. Fire conditions at the rear of these lots will not have the same as conditions as lots backing onto open space.

The proposed Project would also be subject to provisions of the following:

- Uniform Fire Code and local amendments; and Titles 19, 22, and 27 of the California Safety Code Regulations;
- Los Angeles Fire Department regulations, including brush clearance requirements;
- Palmdale Municipal Code; and,
- National Fire Prevention Association Standards.

Uniform Fire Code requirements pertain to fire-safety features such as appropriate all-weather emergency access, adequate fire flow, and fire hydrant spacing. Additionally, the Project proposes multiple new on-site water reservoirs that would enhance existing hydraulic pump facilities during prolonged fire response requirements for the area. Compliance with all applicable fire codes would reduce the potential for fire hazards on the Project site.

Although LACoFD response times in the City are considered adequate, project operation would increase the number of calls for service. However, payments of Development Impact Fees would enable the LACoFD to acquire new facilities, equipment, and personnel needed to accommodate new demand from ongoing regional development. In addition, property taxes generated from the 730-dwelling unit Project would be available to fund additional fire protection and emergency services and would assist in maintaining adequate fire and emergency services. Therefore, potential impacts to fire protection due to Project development and Project operation would be less than significant.

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Law Enforcement

Project operation would result in an increase in demand for law enforcement services. The proposed Project would generate calls for service from the Palmdale Sheriff's Station that are typical of residential uses, such as calls relating to burglary, theft, larceny, vandalism, robbery and assault. However, Project development and operation would generate property taxes that would be deposited into the City General Fund and thereby assist in paying for maintaining adequate law enforcement and staffing levels. As a result, it is a reasonable anticipation that the City of Palmdale would maintain an adequate level of law enforcement service as long as the City and the County of Los Angeles maintain service agreements. The increased demand for law enforcement service caused by Project operation can be met through allocation of revenues generated by the Project through existing sources and resultant impacts on law enforcement services would be less than significant.

In addition, Project development and operation would contribute to an increased demand for California Highway Patrol services on nearby highways due to increased vehicular traffic generated by the Project. However, increased revenues from additional motor vehicle registration fees would increase funding for the California Highway Patrol (CHP) and could be allocated by the State CHP office to the Antelope Valley Station to meet future demands. Thereby, Project operation would not degrade the current service level and impacts to California Highway Patrol services would be less than significant.

Schools

The Palmdale School District (Grades K through eight) and the Antelope Valley Union High School District (Grades 9 through 12) will serve the Project. As previously discussed, collectively there are 2,860 elementary school seats and 827 middle school seats available at the seven Palmdale School District elementary and three middle schools located within five miles of the Project site. There are 903 high school seats available at the Antelope Valley Union High School District schools. As shown on **Table 4.15-5 (Student Generation)**, the Palmdale School District's student generation rate for elementary school students is 0.2678 students per single family detached unit and 0.1294 middle school students per single family detached unit. The Antelope Valley Union High School District student generation rate is 0.2169 high school students per single family detached unit. These generation rates equate to a total Project generation of 291 students to attend Palmdale School District schools and 159 students to attend high schools in the Antelope Valley Union High School District at full Project build out. Based on these numbers, there is ample capacity at both school districts to accommodate the proposed Project's students at full Project build out and impacts to schools would be less than significant.

Table 4.15-5 – Student Generation			
<i>School Level</i>	<i>Single Family Detached Units</i>	<i>Student Generation Rate</i>	<i>Students</i>
<i>Palmdale School District¹</i>			
<i>Elementary School (TK-5)</i>	<i>730</i>	<i>0.2678</i>	<i>196 Elementary School Students</i>
<i>Middle School (6-8)</i>	<i>730</i>	<i>0.1294</i>	<i>95 Middle School Students</i>
<i>Total PSD Students</i>			<i>291 PSD Students</i>
<i>Antelope Valley Union High School District²</i>			
<i>High School (9-12)</i>	<i>730</i>	<i>0.2169</i>	<i>159 High School Students</i>
<i>Total AVUHSD Students</i>			<i>159 AVUSD Students</i>

Source:

¹ Koppel & Gruber, "Palmdale School District, School Fee Justification Study," March 13, 2020.

² Cooperative Strategies, "School Facilities Needs Analysis, Antelope Valley Union High School District," August 7, 2020.

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Additionally, the proposed Project would be required to pay impact fees authorized under Education Code Section 17620 and Government Code Sections 65995, 65995.5, 65995.6 and 65995.7, as amended November 4, 1998. These fees are subject to review annually and would be collected prior to the issuance of building permits. The impact fees for residential developments are based on square footage of each residence. Payment of the applicable impact fees would ensure any Project impact to schools would be less than significant.

Parks

The Project involves development of 730 residential units. A population per unit ratio of 3.6 persons per dwelling unit (Southern California Association of Governments ratio) would mean that annexation of Quail Valley to the City of Palmdale would add 2,628 persons to the City population. That is, at Project buildout, assuming no other residential projects were to be built out, there would be a need for an additional 13.14 acres of parkland. The Project exceeds this requirement.

The Project proposes approximately 395 acres of open space. As shown on **Exhibit 4.16-2 (Amenity Plan)**; **Exhibit 4.16-4 (Conceptual Trail Plan)**, and **Exhibit 4.16-3 (Conceptual QV HOA Recreation Center)**, the proposed Project will contain a 26.4-acre “Quail Valley Public Park” that extends though the length of the project site, including over 13.1 acres of “active” use area, including turf play areas, a small amphitheater, benches, picnic tables, play structures, walkways and bridges, shade and gathering locations, a restroom, trash facilities, two dog parks, an extensive exercise course, and three ADA and EV dedicated parking lots, and an additional 118 designated parking spots specifically dedicated to park parking. There also are an additional 13.3 acres of other passive use areas within the QV Public Park. A prime component of the Quail Valley Public Park and the project overall is a 12-foot-wide decomposed granite multi-purpose trail that is an extension of the Antelope Valley Backbone Trail system. This multi-purpose trail is 11,056 linear feet in length. The trail continues beyond the park in both directions providing a connection at Avenue S at the north end of the project and extending beyond the park into the hills at the southern end of the development. The multi-purpose trail extends another 2300 feet from the park to Avenue S at the north end and at the southern ends extends past the park to connect to existing dirt roadways at the south extending the public access another 2,760 linear feet (another half-mile) into the hills. The 26.4-acre Public Park exceeds the City’s 13.14-acre park and recreation requirement. The park contains over 13.1 acres of “Active” use areas coupled with an additional 13.4 acres of passive use. In addition, the Antelope Valley Backbone Trail extends beyond the park in both directions,

In addition to the backbone trail and the park, in the southern hills, the project includes an additional 12,701 lineal feet of 5-foot-wide semi-improved hillside trails. These trails are modelled after the nearby Palmdale Hills Trail. Using the 20’ overall easement width, these trails provide another 5.83 acres of active recreational use.

As shown on **Exhibit 4.16-2 (Conceptual QV HOA Recreation Center)**, the project includes a 3.2-acre private HOA Recreation Center. The Recreation Center will contain the following: Multi-Use Building; Pool; Spa; Barbeque Counter; Raised Viewing Platform with Shade;; Open Play Lawn; Play Areas; Picnic Area; Covered Seating Area; Shade Area; Event Area Lawn; Bocce Ball Court; three pickleball courts; and, 24-space Parking Lot. This HOA Recreation Center is for the use of the Quail Valley residents and is not counted toward the project recreation acreage requirements.

Library Services

Project operation would increase demand for library facilities. The Palmdale City Library does not meet

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the standard of service recognized in the City General Plan. Therefore, Project operation would contribute to the existing deficiency. However, additional library services are available to Project residents through the Los Angeles County Library system. Although Project operation would increase the demand on the Palmdale City Library facility, the Project developer(s) must pay fees to fund additional library services within the City Library system. As a result, Project-related impacts related to library services would be reduced to a less than significant level.

Non-Quail Valley Annexation Area

The non-Quail Valley areas within the overall annexation boundary include vacant lots, lots with existing housing, and the proposed Falcon Glen project area. Residential development and related increases in population and housing in areas proposed for annexation to the City of Palmdale that are not within the Quail Valley Project site would increase demand for fire protection (the Annexation area is located within a Very High Fire Hazard Severity Zone) and emergency services, law enforcement service, school attendance, park usage, and library usage. Additional residential development in the Falcon Glen project area could add as many as 975 dwelling units and 3,510 residents. Site-specific analyses for non-Quail Valley annexation properties and related projects would need to be conducted to determine levels of impacts to Public Services and appropriate mitigation (if required), including elements such as Development Impact Fees or construction of new public facilities and/or expansion of existing public facilities that would provide services for the non-Quail Valley Annexation area. As the Falcon Glen project is undergoing a separate approval process, the Public Services impacts of that project would be addressed as part of that project review. The Falcon Glen property area is currently vacant land.

4.15.5 CUMULATIVE IMPACTS

Fire Protection

Project build out, in combination with other existing and potential projects, would increase demand for fire protection and emergency services. The volume and types of calls for service would depend on the nature of the developments. Palmdale 2045 contains Goals and Policies that would mitigate the cumulative impacts on fire protection and emergency services. Project development and operation of future projects would generate revenue in the form of property taxes, and sales tax. A portion of those fees would accrue to the City of Palmdale General Fund and would be allocated toward funding needed fire protection and emergency services. Other measures such as bond issuance, land dedications, Development Impact Fees, and assessment districts are also available to fund fire protection and emergency services.

All future projects in the City of Palmdale are subject to Uniform Fire Code provisions and local amendments as well as Titles 19, 22, and 27 of the California Safety Code Regulations, the Palmdale Municipal Code, Los Angeles Fire Department requirements, and National Fire Prevention Association Standards. Each project will be required to include specific design features such as appropriate all-weather emergency access, adequate fire flow, and hydrant spacing. Therefore, cumulative impacts related to fire protection and emergency services would be less than significant.

Law Enforcement

Project development, together with nearby existing development and foreseeable development in the

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Project vicinity, would increase demand for law enforcement services. The volume and types of calls for service would vary based on types of land uses and other factors. Future development would generate property tax revenue, sales tax revenue, and development impact fees. A portion of this revenue would accrue to the City General Fund and be allotted to fund necessary law enforcement protection services. Bond issues, land dedications and assessment districts would also be available to fund law enforcement services. Therefore, cumulative impacts to law enforcement services would be less than significant.

Demand for California Highway Patrol services would increase due to cumulative traffic increases along area highways. Increased revenue generated by cumulative development, such as motor vehicle registration fees paid by new residents and businesses, would provide funding for additional staff and equipment for the California Highway Patrol in the Antelope Valley area to meet future demands. These funding sources and allocation procedures would maintain the current level of California Highway Patrol service. Therefore, the cumulative impacts would be less than significant.

Schools

Build out of projects in the vicinity of the Project site would increase the number of students who would attend Palmdale public schools. This would result in an increase over the existing student enrollment within the Palmdale School District and the Antelope Valley Union High School District. New school facilities could be required. Consequently, cumulative impacts on schools in Palmdale would be significant and would remain so if new school facilities are not developed as needed. Each future residential and commercial project is required to pay school impact fees to fund construction and operation of schools. The fees would be used to build new facilities in accordance with provisions in the City of Palmdale General Plan. Payment of school impact fees is considered full mitigation for impacts on schools. Therefore, cumulative impacts would be reduced to a less than significant level.

Parks

Although Project development will add 2,628 residents to the City and thereby generate additional demand for and use of parks, the Project contains acreage in excess of its park requirement. It is likely Project residents will prefer accessing and using Project park and recreational facilities due to the proximity of the QV Public Park and the private HOA Recreation Center. Since Project roadways are public, and because of its unique trail, exercise and gathering facilities, residents from outside Quail Valley will use the QV Public Park. Other residential projects in the vicinity of Quail Valley will be required to provide parks and/or park impact fees. The resultant level of cumulative impact would be less than significant.

Libraries

Build out of projects in the vicinity of the Project site would cumulatively increase demand for library services. Increased revenue in the form of property taxes, sales tax and development fees would in part provide additional funding for library services. Also, bond issuance, land dedications and assessment districts would be available for funding library services. A significant cumulative impact on library services would result without measures to purchase new materials and to construct new facilities. New development is required to pay development impact fees. Such funding would reduce the cumulative impact to library services to a less than significant level.

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Non-Quail Valley Annexation Area

Residential development in areas proposed for annexation to the City of Palmdale that are not within the Quail Valley Project site would increase demand for Public Services such as fire protection (the Annexation area is located within a Very High Fire Hazard Severity Zone) and emergency services, law enforcement service, school attendance, park usage, and library usage. Additional residential development in the Falcon Glen project area could add as many as 975 dwelling units and 3,510 residents. The Falcon Glen property area is currently vacant land. Site-specific analyses for non-Quail Valley annexation properties and related projects would need to be conducted to determine levels of cumulative impacts and appropriate mitigation (if required), including elements such as Development Impact Fees or construction of new public facilities and/or expansion of existing public facilities that would provide services for the non-Quail Valley Annexation area.

4.15.6 LEVEL OF SIGNIFICANCE BEFORE MITIGATION

Project operation will result in increased demand for fire protection and emergency services, law enforcement services, and library services. These impacts would be potentially significant prior to mitigation.

4.15.7 MITIGATION MEASURES

No Mitigation Measures are required.

4.15.8 LEVEL OF SIGNIFICANCE AFTER MITIGATION

Project operation impacts to fire protection and emergency service, law enforcement service, schools, and libraries will be less than significant.

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4.16 Recreation

Information in this section was derived from the following: City of Palmdale General Plan, “Palmdale 2045”; City of Palmdale Parks and Recreation Master Plan; City of Palmdale Municipal Code; Los Angeles County General Plan 2035 (October 6, 2015); and the Quail Valley Planned Development Project plans.

4.16.1 ENVIRONMENTAL SETTING

The City of Palmdale Parks and Recreation Department maintains and operates programming of various parks and recreation facilities within Palmdale. In addition, the Parks and Recreation Department coordinates recreational activities within the City in cooperation with public agencies. These recreational activities include programs for children, youth, teens, adults and seniors offered on a regular basis.

According to Palmdale 2045, Palmdale has 365 acres of existing parkland, which does not include the area of Ritter Ranch that lies partially within the City limits. There are three classifications of parks within the City of Palmdale: Mini-parks, which are facilities that occupy three or fewer acres; Neighborhood parks which occupy three to seven acres; and Community parks which are five to 50 or more acres in size.

City Parks

The following is a list of Community Parks in the City of Palmdale. Refer to **Exhibit 4.16-1 (Public Services)** for their respective locations:

- Anaverde Hills Park (6 acres)
- Arnie Quinones Park (10 acres; 3 developed acres)
- Desert Sands Park (20 acres)
- Domenic Massari Park (38 acres)
- Foothill Park (12 acres)
- Joshua Hills Park (4 acres)
- Manzanita Heights Park (4 acres)
- Marie Kerr Park (77 acres)
- Melville J. Courson Park (5 acres)
- Palmdale Oasis Park (29 acres)
- Pelona Vista Park (76 acres)
- Rancho Vista Neighborhood Park (4 acres)
- Sam Yellen Community Park and Dog Park (25 acres; 12 developed acres)
- Tejon Equestrian Park (20 acres)
- William J. McAdam Park (19 acres)

Greenways

- Doctor Robert C. St. Clair Parkway (8 acres)
- Legacy Commons Park (1 acre)
- Poncitlan Square (2 acres)

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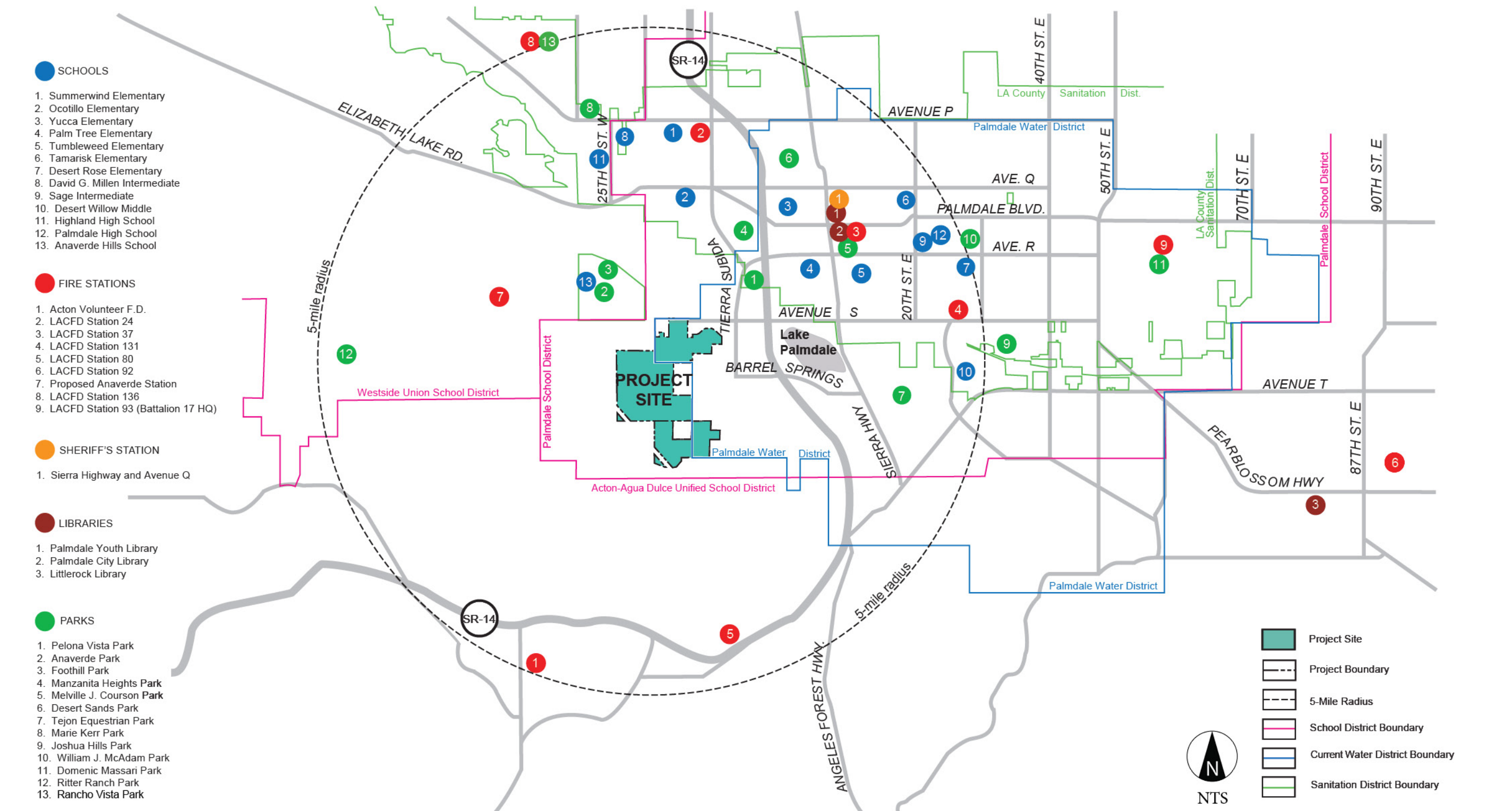
Special use Parks

- American Indian Little League Fields (5 acres)
- Palmdale Pony League Baseball Fields (5 acres)

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EXHIBIT 4.16-1 – PUBLIC SERVICES



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City Recreational Facilities

In addition to the parks, the City owns or operates the following recreational facilities:

- American Indian Little League Fields
- Chimbole Cultural Center
- Barrel Springs Trail and Equestrian Area
- Best of the West Softball Complex (located at Marie Kerr Park)
- Dry Town Water Park (located at Palmdale Oasis Park)
- Joe Davies Heritage Airpark
- Legacy Commons for Active Seniors
- Palmdale Amphitheater (located at Marie Kerr Park)
- Palmdale Playhouse
- Palmdale Youth Pony League Fields

Other Public Recreational Facilities

Other recreational facilities in Palmdale and in the vicinity of the Project site include school athletic fields and the Palmdale Pony Youth Baseball Field which is owned by the Antelope Valley Union High School District.

County Parks, Natural Areas, Nature Centers and Wildlife Sanctuaries

Los Angeles County has several neighborhood and community parks located in unincorporated portions of the Antelope Valley.

Additionally, nearby Los Angeles County Natural Areas, Nature Centers and Wildlife Sanctuaries include:

- Devil's Punchbowl Natural Area and Nature Center
- Vasquez Rocks Natural Area and Nature Center
- Acton Wash Wildlife Sanctuary
- Alpine Butte Wildlife Sanctuary
- Big Rock Wash Wildlife Sanctuary
- Butte Valley Wildflower Sanctuary
- Carl O. Gerhardt Wildlife Sanctuary
- Jack Rabbit Flats Wildlife Sanctuary
- Phacelia Wildlife Sanctuary
- Prime Desert Woodland Preserve

State Parks

The nearest State parks to the Project site include the Antelope Valley California Poppy State Natural Reserve, the Antelope Valley Indian Museum State Historic Park, and the Saddleback Butte State Park.

United States Forest Service Open Space

The Angeles National Forest covers over 600,000 acres of public lands in the Transverse Range which includes portions of the San Gabriel and Sierra Pelona Mountains that are located south of Palmdale.

Other Public Agencies

The California Aqueduct is operated and maintained by the California Department of Water Resources and provides a bikeway and designated areas for fishing.

The Ritter Ranch Park is managed by the Mountains Recreation and Conservation Authority (MRCA) and is a 4,000-acre open space park.

Private Recreational Facilities

Private recreational facilities include the following:

- Desert Aire Golf Course
- Antelope Valley Country Club
- Rancho Vista Golf Course
- Lake Palmdale (owned by the Palmdale Water District)
- Los Angeles County Raceway Motocross

Trails

Approximately one mile east of the Project site is the Avenue S Bike Trail, which is a Class 1 bike path that runs approximately one- and one-half miles east to west along Avenue S, from State Route 14 (SR- 14) to Hamilton Place.

Barrel Springs Trail is an approximately two and one half-mile multi-use out and back trail that begins at 25th Street East near Pearblossom Highway and ends at the entrance of Tejon Park south of East Barrel Springs Road.

Joshua Ranch Trail is an approximately seven and one third-mile multi-use loop trail which extends west from Avenue P-12 and the California Aqueduct through the Joshua Ranch development connecting with trails within the City's Warnack Nature Park, east of Godde Hill Road.

Palmdale Hills Trail is a County trail located approximately one-half mile easterly of the Project site. The on-site semi-improved trails are similar in concept to the Palmdale Hills Trail and other similar trail systems gaining popularity throughout Southern California. A component of the Antelope Valley Backbone Trail alignment passes through the Quail Valley Project

Although Palmdale 2045 states that “while Palmdale has abundant land, formal bicycle and pedestrian trails are fairly limited within City limit, Palmdale’s multi-use trails connect with an extensive trail system planned by Los Angeles County and the City of Lancaster. Palmdale 2045 indicates that current trails include the Avenue S Bike Trail (Class I bike path) that extends approximately 4.7 miles (with minor gaps) east to west along Avenue S from SR-14 to 45th Street East. In addition, the 1.5-mile Barrel Springs Trail provides access to open space. Other trails include the Ritter Ridge and Joshua Ranch Loop that offer

hikers and mountain bikers an 11-mile trail to enjoy and view wildlife, and the Sierra Highway Bike Trail (Class I bike path) extends from the Lancaster Metrolink Station south to the Palmdale Transit Center (approximately 7.5 miles).

The City of Palmdale 2018 Draft Bicycle Transportation Plan prioritizes development of more than 173 miles of trails for biking, hiking, and equestrian use, dependent upon availability of future funding. Together with bike lanes, bikeways, bike routes, and multi-use trails detailed in the Palmdale 2045 Mobility Element promote alternative travel modes and connect key destinations throughout the City of Palmdale.

City of Palmdale 2019 Ten-Year Capital Improvement Plan

The City of Palmdale 2019 Ten-Year Capital Improvement Plan identified potential future parks, including the development of approximately 76 acres of new neighborhood parks, sports fields in the drainage basin at Oasis Park, and recreation uses at other natural stormwater drainage basins. The City’s 2019-2020 fiscal year Capital Improvement Budget allocates \$4.7 million for continual upkeep and upgrades for park facilities, which includes the refurbishment of Dry Town Water Park facilities, McAdam Park restroom upgrades, Sports Field renovations, and \$2.5 million towards improvements at Oasis Park.

4.16.1 REGULATORY FRAMEWORK

Local Regulations

City of Palmdale General Plan (Palmdale 2045)

A Consistency Assessment of Palmdale 2045 Goals and Policies relevant to the Quail Valley Project Recreation analysis is contained in **Appendix A** of this EIR. Following are Palmdale 2045 Goals and Policies relevant to the Quail Valley Project.

Land Use and Community Design Element

- | | |
|------------------------|---|
| Goal LUD-3: | A City with high-quality services and facilities in all neighborhoods. |
| Policy LUD-5.5: | Trail Networks. Provide new trails systems that connect to the regional system. |
| Policy LUD-6.3: | Integrated Pedestrian Circulation. For construction of new small-scale housing and minor subdivision projects, design site plans that provide amenities and integrated networks for walking and bicycling. |
| Policy LUD-6.4: | Recreational Spaces. Improve existing parks and public spaces throughout the city to provide beautiful, comfortable, and inviting gathering spaces. |
| Policy LUD-6.5: | Amenities and Gathering Spaces. Encourage new development to incorporate public plazas, seating, drinking fountains, and gathering places, especially in prominent locations and areas of pedestrian activity. |
| Policy LUD-6.6: | Ongoing Maintenance. Require project developers to establish mechanisms, such as a Community Facilities District, to adequately maintain new parks, |

recreational facilities, and infrastructure.

- Policy LUD-23.1:** **Connections to Existing Neighborhoods.** Provide pedestrian/bicycle connections to trails and open space where appropriate and indicated in past planning efforts.
- Policy LUD-23.3:** **Connectivity Enhancements.** Introduce new public trail systems that connect to the regional system through Capital Improvement Projects, private development projects and city/regional parks improvements.

Equitable and Healthy Communities Element

- Goal EHC-10:** **Encourage neighborhoods with a range of opportunities to exercise, including parks and recreational facilities.**
- Policy EHC-10.1:** **Near-Universal Access to Recreation.** Work toward a goal of having 90 percent of residents living within a 20-minute walking distance of a dedicated park, school, or multi-use trail.
- Policy EHC-10.2:** **Access to Open Space.** Plan for new parks and increase access to existing and future parks, trails, and open spaces, especially in disadvantaged communities.

Parks, Recreation and Open Space Element

- Goal PR-1:** **Provision of adequate park and recreation facilities to meet the needs of all existing and future residents.**
- Policy PR-1.2:** **Park Location.** Ensure that park sites are located equitably, throughout the city, to maximize access to parks for residents within a 20-minute walking distance.
- Policy PR-1.3:** **Parks Accessibility.** Provide a variety of parks and recreational facilities accessible to all residents throughout the city, including community and neighborhood parks, to meet the needs of youth, adults, and senior citizens.
- Policy PR-1.7:** **ADA Design.** Incorporate all design features, required by the Americans with Disabilities Act, which improve access to parks and park facilities for citizens with different abilities and needs.
- Policy PR-1.9:** **Parkland Incentives.** Work with the private development community to incentivize creation of publicly accessible parkland either on- or off-site.
- Goal PR-4:** **Explore various means of acquiring parkland and seek creative and flexible techniques to accomplish park goals.**
- Policy PR-4.1:** **Incorporate Parkland.** Wherever feasible, incorporate uses that increase the public benefit of park land, and are compatible with the goal of providing active recreation opportunities.

Policy PR-4.2:	Non-Traditional Parks. Consider non-traditional types of parks to extend the range of recreational opportunities available within the city, including linear parks, neighborhood parks, and remodeling vacant buildings for indoor activities, among others.
Policy PR-4.5:	Park Site Considerations. Account for physical, land use, and cost considerations when evaluating future park sites for acquisition or dedication.
Goal PR-5:	Evaluate the need for establishing a funding mechanism for parks development and the need for satellite services.
Policy PR-5.1:	Park Maintenance and Improvements Funding. Provide sufficient funding for maintenance and improvements for all parks.
Policy PR-5.2:	Park Fees. Collect park fees and review this fee annually, to provide financing for improvement of parkland.
Goal PR-6:	Provide a network of open space areas to provide for passive and active recreation opportunities, enhance the integrity of biological systems, and provide visual relief from the developed portions of the city.
Policy PR-6.3:	Passive Recreation Use. Encourage the use of open space areas for passive recreation with access points, multi-use trails, and interpretive information.
Goal PR-7:	Maintain a system of multi-use trails that provide connections to regional trails systems and residential neighborhoods.
Policy PR-7.1:	Multi-Use Trails. Provide and maintain multi-use trails, for use by pedestrians, bicyclists, and equestrians, connecting to existing or currently planned multi-use trails.
Policy PR-7.2:	Multi-Use Trail Connections. Prioritize multi-use trail connections to existing neighborhoods, public parks, and public facilities based on the modal priority network in the Mobility Element.
Policy PR-7.3:	Promote New Multi-Use Trails. When feasible, consider adding multi-use paths near or within areas used for water retention, like the aqueduct, or below transmission lines, to increase local walking and biking routes.
Policy PR-7.4:	Trail Accessibility. To the extent feasible, ensure that trails are accessible to all residents and incorporate ADA design features.
Policy PR-7.5:	Trail Amenities and Facilities. Provide trail support facilities, such as benches, trash cans and trail heads/staging areas, as needed throughout the multi-use trails network.
Policy PR-7.8:	Trails Network Adoption: Incorporate the citywide multi-purpose trail network adopted under the General Plan into the regional trail system.

- Policy PR-8.1:** **Greenbelt Program.** Establish a greenbelt program to create a network of open spaces on the city’s periphery.
- Policy PR-8.3:** **Open Space Linkages.** Create a network of open space by creating linkages wherever possible, especially to and from residential neighborhoods.
- Policy PR-8.5:** **Location and Retain Open Spaces.** Utilize the City’s discretionary land use approval process to locate and retain areas for use as open space through dedication or other legal means. Develop criteria and guidelines to identify areas that should be protected.

4.16.2 THRESHOLDS FOR DETERMINING SIGNIFICANCE

This EIR uses the following CEQA-adopted Thresholds of Significance to comprise the basis of impact analyses. The Project may create a significant impact if it results in one or more of the following; that is, would the Project:

- Threshold REC-1** 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.
- Threshold REC-2** Include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment.

4.16.3 ENVIRONMENTAL IMPACT

Impact Analysis

- Threshold REC-1** 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?

Less than Significant Impact.

The current City of Palmdale General Plan Parks, Recreation and Open Space Element establishes guidelines for development of future recreational facilities via a series of stated goals, policies, and objectives. This General Plan Element provides that the City has a goal of having no fewer than 5 acres of parkland per 1,000 City residents.

According to Palmdale 2045 the 2021 population of the City was 156,074. However, according to the United States Census “Quick Facts” for 2022, the City population on July 1, 2022 was estimated to be 163,463. This would mean that there would need to be 817 acres of parkland in the City to satisfy the General Plan active parkland-to-population ratio target. The City currently owns and operates 351 acres of parkland and open space. The City would need to add an additional 430 acres of parkland to satisfy the

five acres per 1,000 persons standard. According to the General Plan Update, the City has adequate acreage to fill this demand.

The Project involves development of 730 residential units. A population per unit ratio of 3.6 persons per dwelling unit (Southern California Association of Governments ratio) would mean that annexation of Quail Valley to the City of Palmdale would add 2,628 persons to the City population. That is, at Project buildout, assuming no other residential projects were to be built out, there would be a need for an additional 13.14 acres of parkland. The proposed Project meets and exceeds this project level requirement by providing a 26.4-acre Quail Valley Public Park with multiple recreational facilities. Additional public recreation facilities are provided within the Project. **Table 4.16-1 (Recreation and “Open Space” Facilities)** of detailed breakdown of uses is provided below.

The Project proposes approximately 395 acres of open space

The entire Project site will be connected by a combination of trail and public park as shown on **Exhibit 4.16-3 (Amenity Plan)** and **Exhibit 4.16-4 (Conceptual Trail Plan)**. Open turf areas allotted for play are located along the linear park where expansive flat areas occur. The 26.4-acre QV Public Park extends through the length of the Project site and has trail connections at the northern and southern edges of the Project site development envelope, with extending access along existing dirt roadways to the south. The trail element passing through the Project is a component of the extension of the Antelope Valley Backbone Trail Alignment and is available to the public. The 26.4-acre QV Public Park will also be entered through various neighborhood portals, and will contain over 13.1 acres of “active” use area, including turf play areas, a small amphitheater, benches, picnic tables, play structures, walkways and bridges, shade and gathering locations, a restroom, trash facilities, two dog parks, an extensive exercise course, and three ADA and EV dedicated parking lots, and an additional 118 designated parking spots specifically dedicated to park parking. There also are an additional 13.3 acres of other passive use areas within the QV Public Park.

The Project is proposed to contain an extensive trail and pedestrian circulation system, as shown on **Exhibit 4.16-4 (Conceptual Trail Plan)**, that will encompass a full range of options from semi-improved trails along hillsides to the 12-foot-wide multi-use trail traversing the community. Additionally, there will be an 8-foot-wide asphalt bike trail along Avenue S, a 5-foot-wide multi-purpose trail around the central circle and bike trails along the project internal loop streets that will connect to the central multi-purpose trail and the Antelope Valley Backbone Trail.

As part of the trail network, five-foot-wide semi-improved trails are planned for the upper areas of the permanently undeveloped area within the southern open space area to provide various looped pathways. One of these trail components includes a stub out to the southeasterly property line for a future connection to the Palmdale Hills Trail providing for a future connection (by others) allowing a trail from the eastside of Palmdale all the way to the County Backbone Trail alignment and thereby to the entire County.

As shown on **Exhibit 4.16-3 (Conceptual QV HOA Recreation Center)**, the project includes a 3.2-acre private HOA Recreation Center. The Recreation Center will contain the following: multi-use building; pool; spa; barbeque counter; raised viewing platform with shade; open play lawn; play areas; picnic area; covered seating area; shade area; event area lawn; bocce ball court; three pickleball courts; and, 24-space parking lot. The private HOA Recreation Center is for the private use of the Quail Valley residents, and though not counted toward the project’s public recreation acreage requirements, will be used in many cases by the Quail Valley residents instead of traveling to other city park facilities.

Section 4.16

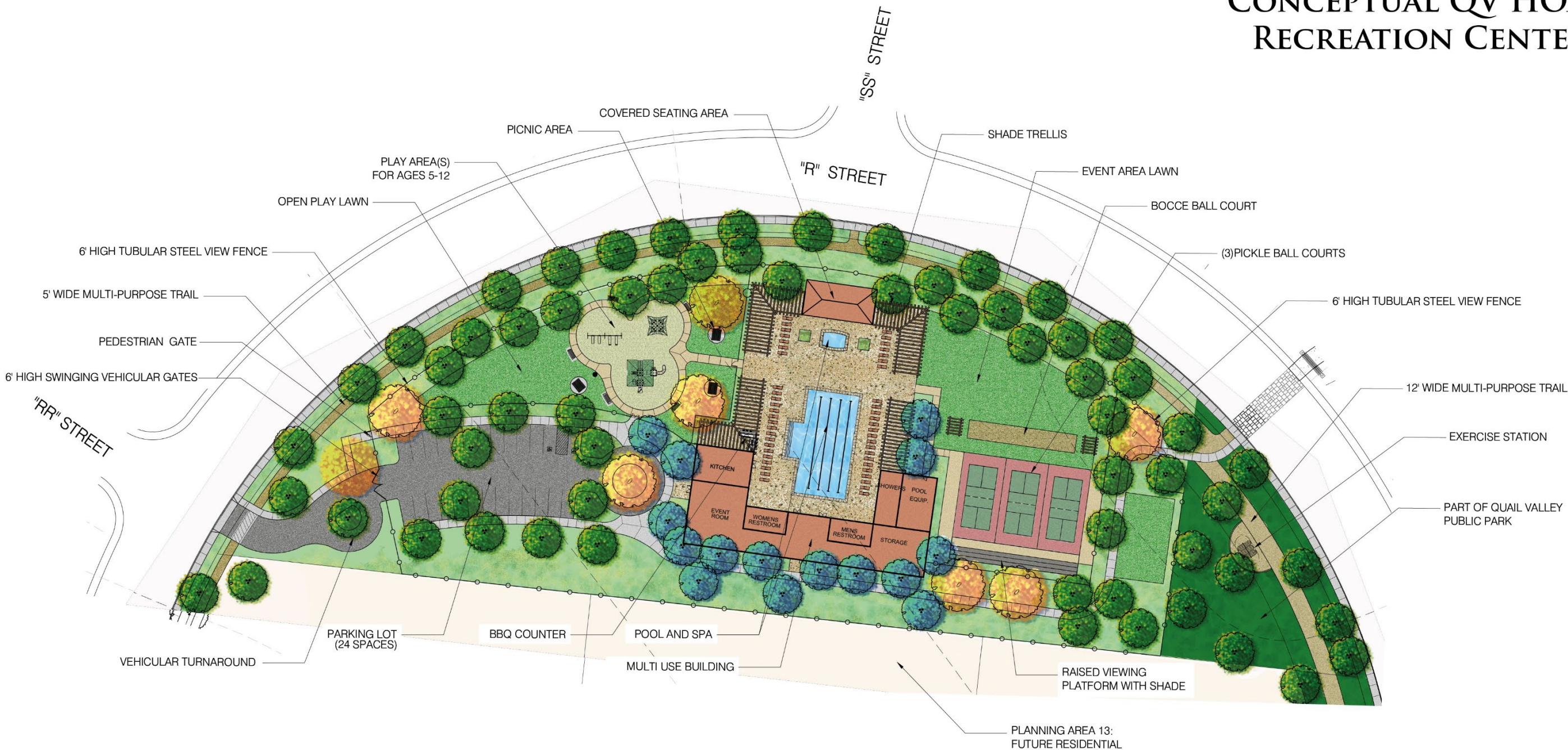
It is reasonable to assume future residents will use various City recreational facilities. Since Project roadways are public, and because of its unique trail, exercise and public park facilities, residents from outside Quail Valley will use the QV Public Park and trail system.

Table 4.16-1 – Recreation and “Open Space” Facilities	
TYPE	ACREAGE
HOA Recreation Center	3.2
QV Public Park	26.4
AV Backbone Trail Located Outside of QV Park	0.9
Semi-improved Hillside Trails ¹	5.8 ¹
SUB-TOTAL ¹	36.3
Archaeological Site	1.1
Permanent Open Space – Area A ¹	184.5 ¹
Permanent Open Space – Area B	210.6
SUB-TOTAL	396.2

¹ The Semi-improved Hillside Trails are located within the Area A Open Space. This 5.9 acres is active recreation acreage and is included in both the Recreation Subtotal and the Permanent Open Space – Area A acreage.

EXHIBIT 4.16-2 – CONCEPTUAL QV HOA RECREATION CENTER

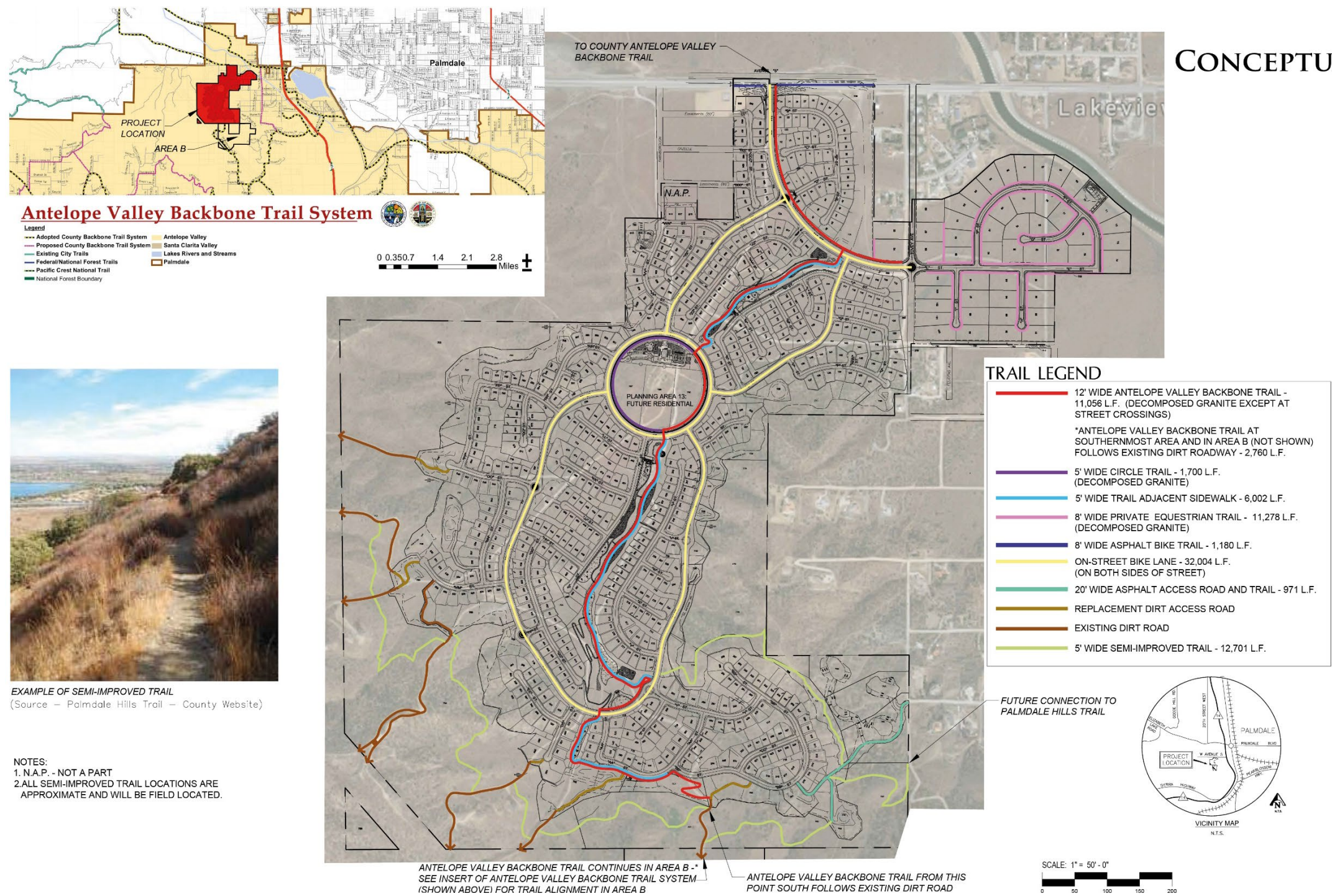
CONCEPTUAL QV HOA
RECREATION CENTER



AMENITY PLAN



EXHIBIT 4.16-4 – CONCEPTUAL TRAIL PLAN



CONCEPTUAL TRAIL PLAN

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However, as previously discussed, the proposed Project is designed with multiple on-site recreational opportunities for its residents and visitors, which will help to lessen the need for its residents to use other existing neighborhood and regional parks or other recreational facilities in the City of Palmdale. Additionally, it assumed that non-residents will use the multi-use trail. Therefore, the proposed Project's impact on existing neighborhood and regional parks or other recreational facilities would be less than significant.

Threshold REC-2 Would the Project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?

No Impact.

As previously discussed under **Threshold REC-1**, the Project's 3.2-acre QV HOA Recreation Center will be located in the central portion of the community and encircled by the central loop road ("R" Street, as depicted on Exhibit 3-10 in the Planned Development Plan document. The QV HOA Recreation Center and attendant parking area will be gated and reserved for exclusive use by Quail Valley residents. This facility will be privately owned and maintained by the HOA. The 3.2-acre area will contain a community pool and spa, surrounded by shade structures, restrooms, and HOA-governed indoor facilities, three pickleball courts, a bocce ball court, open plan turf areas, children's activity area, and a gated, key or wireless fob activated off-street parking lot with 24 vehicle spaces including American Disabilities Act-compliant and electric vehicle spaces. The majority of users of the private recreation facility are anticipated to walk to the facility. The HOA Recreation Center has undergone preliminary department review and will undergo additional site-specific review.

The entire Quail Valley community is connected by a linear 26.4-acre Quail Valley Public Park (QV Public Park). The Planned Development Plan contains graphics (**Exhibits 3-11A, 3-11B, and 3-11C**) depicting the three primary park areas of the QV Public Park. QV Public Park is grounded by a 12-foot-wide multi-purpose trail and adjacent 5-foot-wide concrete sidewalk. QV Park will contain more than 13 acres of active park opportunities and will contain a small amphitheater, tot lots with playground structures, open turf areas, dog parks, and vehicle parking lots.

The 26.4-acre QV Public Park will provide a meandering five-foot-wide sidewalk and 12-foot-wide multi-purpose trail that traverses the Project site and provides convenient access to the community recreation center through multiple neighborhood access points. The park contains multiple active use facilities, a small amphitheater, tot lots with playground structures, designated dog parks, open turf areas, 12-foot-high neighborhood portals, ten (10) picnic tables, some with integrated shade covers, decorative benches, and trash receptacles are strategically placed at various points along the length of the park. Large shade structures provide gathering locations are located along the length of the park. A restroom is located in the central portion of the park. In keeping with the fitness component of the trails, an extensive exercise course is designed along the length of the park. The QV Public Park also includes three (3) parking lots providing ADA and EV parking spaces, as well as on-street, parallel parking stalls along the edge of the park that are designated specifically for park parking. In all, 130 spaces are designated specifically for the park. The regional trail provides a significant extension of this regional facility.

The extensive recreational facilities within the proposed Project will not have an adverse impact on the environment. The community recreation facility is centrally located, the park and trails system, and the

passive and active recreational amenities are part of the overall integral community design. In addition, the Quail Valley Public Park would be accessible via public roadways leading into the Project site from Avenue S. The recreational facilities follow City General Plan requirements and would not require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment. Therefore, because Quail Valley's park and recreational opportunities exceed City local park requirements, no impact to recreational facilities would result from Project development or operation.

Development on the LAFCO-approved non-Quail Valley properties proposed for annexation would require site-specific environmental analysis of potential impacts pertaining to CEQA-identified Recreation topics for analysis. The non-Quail Valley areas within the overall annexation boundary include vacant lots, lots with existing housing, and the proposed Falcon Glen project area. Residential development on the Falcon Glen site could result in the construction of up to 975 single-family dwelling units and 3,510 new residents. As the Falcon Glen project is undergoing a separate approval process, the Recreation impacts of that project will be addressed as part of that project review. The Falcon Glen property area is currently vacant land. Development within the Annexation area would result in direct growth of population and the need for additional recreation facilities in those areas to be annexed to the City of Palmdale.

4.16.4 CUMULATIVE IMPACTS

According to the City of Palmdale, there are 14 projects that are “in the pipeline” within approximately two miles of the 878.1-acre Project site. Total residential build out of these projects will comprise of the following: 9,477 single-family detached residential units; 2,823 single-family attached residential units; and 2,080 multi-family residential units. The proposed Project would add 701 single-family detached residential units with an additional 29 single-family detached or multi-family residential units, depending on market demand, for a grand total of 15,110 dwelling units. Based on an occupancy rate of 3.60 persons per household, the corresponding population would be 54,396 future residents. Based on the Parks, Recreation and Trails Element of the general plan policies, five acres of parkland per 1,000 residents would be required to meet future needs. This translates to 272 acres of active parkland required. Each of these future developments would be required to provide parkland on or off-site in compliance with the Department's requirements, and therefore, the impacts of each proposed Project could be mitigated on a project-by-project basis. By providing adequate parkland, the Project would avoid over-use of existing park facilities and the impact related to the physical deterioration of the neighborhood parks would be less than significant. Therefore, the proposed Project's contribution to the cumulative impact would not be cumulatively considerable.

Development on the LAFCO-approved non-Quail Valley properties proposed for annexation would require site-specific environmental analysis of potential impacts pertaining to CEQA-identified cumulative Recreation topics for analysis.

It can be anticipated that residential development would occur in Annexation areas and thereby would result in direct growth of population in those areas to be annexed to the City of Palmdale. As a result, additional cumulative impacts to Recreation could result from proposed non-Quail Valley annexation areas. Site-specific analyses for non-Quail Valley annexation properties and related projects would need to be conducted to determine levels of cumulative impacts and appropriate mitigation (if required), including elements such as Development Impact Fees or construction of new public facilities and/or expansion of

existing public facilities that would provide Recreation services as part of development for the non-Quail Valley Annexation area.

4.16.5 LEVEL OF SIGNIFICANCE BEFORE MITIGATION

Project development and operational impacts pertaining to Recreational facilities, as demonstrated in the previous narrative, would be less than significant.

4.16.6 MITIGATION MEASURES

No Mitigation Measures are required.

4.16.7 LEVEL OF SIGNIFICANCE AFTER MITIGATION

Project development and operation level of impact pertaining to Recreation facilities would be less than significant.

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4.17 Transportation and Traffic

The information in this section is derived from the following: City of Palmdale General Plan, Palmdale 2045; County of Los Angeles General Plan; Ruetters & Schuler, Civil Engineers, “Traffic Study for Quail Valley Residential Development, Located Along Avenue S & West of State Route 14, Palmdale, California” (August 2017); Ruetters & Schuler, Civil Engineers, “VMT Impact Analysis for the Project Quail Valley Planned Development in the City of Palmdale” (July 29, 2021); and the Quail Valley Planned Development Project plans.

4.17.1 ENVIRONMENTAL SETTING

Existing Conditions

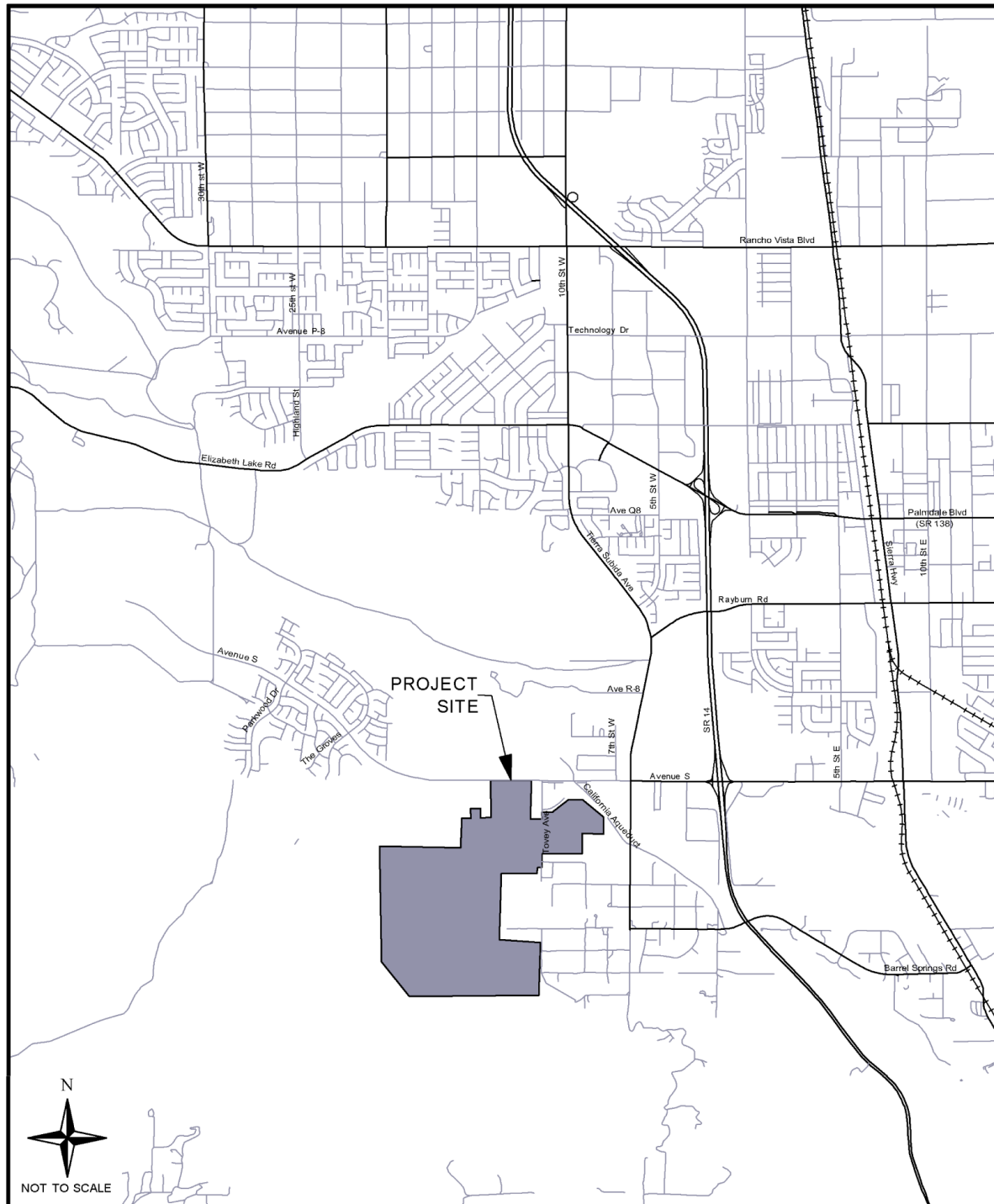
The approximately 878.1-acre currently vacant Project site is located within unincorporated Los Angeles County, immediately south of the City of Palmdale and within the City’s Sphere of Influence. More specifically, the Project site is situated on the south side of Avenue S, approximately 1 mile west of California State Route 14 (SR-14).

The Project site is comprised of two principal land areas. Area A occupies 667.5 acres within the northerly portion of the Project site that is located adjacent to Avenue S; Area B occupies approximately 210 acres within higher elevations of foothills up to the ridgeline of the Sierra Pelona Mountains in the southerly portion of the Project site.

Proposed vehicular access to the Project site would be from Tovey Avenue and along Avenue S approximately 2,500 feet west of Tovey Avenue.

The following are roadways in the Project vicinity, as shown on **Exhibit 4.17-1 (Project Vicinity Circulation Map)**.

EXHIBIT 4.17-1 – PROJECT VICINITY CIRCULATION MAP



RUETTIGERS
& SCHULER
CIVIL ENGINEERS

- **5th Street West** – 5th Street West is a north-south secondary arterial roadway, existing as a fully expanded four-lane facility with a two-way left-turn lane, that provides access to residential and commercial land uses immediately west of SR-14.
- **7th Street West** – 7th Street West is a north-south roadway that extends north approximately 1,300 feet from West Avenue S, existing as a two-lane facility that provides access to ranch style residences in southern Palmdale.
- **Avenue Q-8**– Avenue Q-8 is a secondary arterial roadway that exists as a four-lane roadway with a two-way left-turn lane that extends from Tierra Subida Avenue to 5th Street West and that provides access to residential land uses in western Palmdale.
- **Avenue R/Rayburn Road** – Avenue R/Rayburn Road is a major east-west arterial roadway of varying widths that provides a crossing at SR-14 with no interchange and that provides access to residential and commercial land uses through central Palmdale
- **Avenue S** – Avenue S is a major east-west arterial roadway that borders the Project site and that provides access to residential, agricultural, and commercial land uses in southern Palmdale. It exists as a divided four-lane roadway with a median in the Project site vicinity and has a two-way left-turn lane in other areas within Palmdale. Avenue S also has an interchange with State Route 14 and provides a crossing over the California Aqueduct.
- **Barrel Springs Road** – Barrel Springs Road is a two-lane, east-west secondary arterial roadway that extends east from Tierra Subida Avenue to Sierra Highway and crosses the California Aqueduct and SR-14 and that provides access to ranch style residences south of Lake Palmdale.
- **Elizabeth Lake Road** – Elizabeth Lake Road is a major east-west arterial roadway comprised of a fully expanded four-lane roadway with medians in the Project site vicinity and that provides access to residential and commercial land uses to the west of State Route 14 and that becomes Palmdale Boulevard after crossing Tierra Subida Avenue.
- **Highland Street/25th Street West** – Highland Street/25th Street West is a major arterial roadway south of W Avenue Q-8 and a secondary arterial roadway north of W Avenue Q-8, fully expanded as a four-lane roadway with a two-way left-turn lane. This roadway provides access to residential land uses between Elizabeth Lake Road and Rancho Vista Boulevard in central Palmdale.
- **Palmdale Boulevard** – Palmdale Boulevard is a major east-west arterial roadway that exists as a four-lane divided roadway in the Project site vicinity. Palmdale Boulevard provides access to residential and commercial land uses to the east of Tierra Subida and provides a full interchange connection to SR-14. Palmdale Boulevard is considered a regional arterial roadway east of SR-14 where it shares alignment with California State Route 138 (SR-138).
- **Parkwood Drive** – Parkwood Drive is a north-south two-lane roadway that provides access to existing and developing residential land uses in southwest Palmdale.
- **State Route 14** – SR-14 is a north-south six-lane State highway located primarily in the Mojave Desert. The southern portion of SR-14 is signed as the Antelope Valley Freeway in the Palmdale area. SR-14 in the Project site vicinity is a busy commuter freeway, serving to connect Santa Clarita, Palmdale and Lancaster with the remainder of Greater Los Angeles.

- **The Groves** – The Groves is a two-lane roadway that provides primary access from West Avenue S to The Groves residential development in southwest Palmdale.
- **Tierra Subida Avenue/10th Street West** – Tierra Subida Avenue/10th Street West is a major north-south arterial roadway comprised of four lanes and a two-way left-turn lane in northern Palmdale, but that narrows to a two-lane roadway in the Project site vicinity. Tierra Subida Avenue/10th Street West provides access to residential and commercial land uses along western Palmdale.
- **Tovey Avenue** – Tovey Avenue is a north-south two-lane roadway that extends approximately 1,000 feet south from Avenue S and that provides access to the Project site and to other residential land uses in southwest Palmdale.

4.17.2 REGULATORY FRAMEWORK

Regional Regulations

Connect SoCal

The Southern California Association of Governments (SCAG) is a regional agency established pursuant to California Government Code § 6500, also referred to as the Joint Powers Authority law. SCAG is designated as a Council of Governments (COG), a Regional Transportation Planning Agency (RTPA), and a Metropolitan Planning Organization (MPO). The Project site is within SCAG's regional authority. SCAG adopted a Regional Transportation Plan (RTP) with goals to: 1) align the plan investments and policies with improving regional economic development and competitiveness; 2) maximize mobility and accessibility for all people and goods in the region; 3) ensure travel safety and reliability for all people and goods in the region; 4) preserve and ensure a sustainable regional transportation system; 5) maximize the productivity of our transportation system; 6) protect the environment and health of our residents by improving air quality and encouraging active transportation (e.g., bicycling and walking); 7) actively encourage and create incentives for energy efficiency, where possible; 8) encourage land use and growth patterns that facilitate transit and active transportation; and 9) maximize the security of the regional transportation system through improved system monitoring, rapid recovery planning, and coordination with other security agencies. Performance measures and funding strategies are also included to ensure that the adopted goals are achieved through implementation of the RTP through year 2040.

SCAG has determined that, in compliance with SB 743, vehicle miles traveled (VMT) is the context for determining project-level and regional transportation impacts levels. VMT measures the overall transportation network efficiency to determine expected 2045 transportation conditions in the SCAG region. Furthermore, Connect SoCal indicates that “generally, projects within one-half mile of either an existing major transit stop or a stop along an existing high quality transit corridor should be presumed to cause a less than significant transportation impact” and “projects that decrease vehicle miles traveled in the project area compared to existing conditions should be considered to have a less than significant transportation impact.”

County of Los Angeles Congestion Management Program

The intent of a Congestion Management Program (CMP) is to more directly link land use, transportation, and air quality, thereby prompting reasonable growth management programs that will effectively utilize new transportation funds, alleviate traffic congestion and related impacts, and improve air quality. Counties within California have developed CMPs with varying methods and strategies to meet the intent of the CMP

legislation. As the Congestion Management Agency for Los Angeles County, the Los Angeles County Metropolitan Transportation Authority (Metro) is responsible for implementing the Los Angeles CMP. The Los Angeles County CMP became effective with the passage of Proposition 111 in 1990 and was updated in 2010. The 2010 CMP includes a summary of 18 years of CMP highway and transit monitoring and 15 years of monitoring local growth. It also includes implementation guidelines for local jurisdictions. As companion documents, Metro published a CMP Congestion Mitigation Fee Study followed by nexus studies and economic analysis reports detailing how a regional CMP mitigation fee could work. To date, a regional congestion mitigation fee has not yet been adopted.

Local Regulations

City of Palmdale General Plan (Palmdale 2045)

A General Plan Consistency Assessment of Palmdale 2045 Goals and Policies, relevant to the Quail Valley Project Transportation analysis is contained in **Appendix A** of this EIR. Following are Palmdale 2045 Goals and Policies relevant to the Quail Valley Project.

Land Use and Community Design Element

Policy LUD-5.2: **Walkability of New Neighborhoods.** Require all new neighborhoods to be pedestrian friendly by including features, such as short blocks, wide sidewalks, shaded streets, buildings that define and are oriented to streets or public spaces, traffic-calming features, convenient pedestrian street crossings, and safe streets designed for pedestrians, cyclists, and vehicles.

Circulation and Mobility Element

Goal CM-1: **Build and maintain a transportation system that is safe and comfortable for travelers of all modes regardless of age or ability.**

Policy CM-1.1: **Roadway Design.** Design and maintain the public right-of-way through a complete streets approach that facilitates safe, comfortable, and efficient travel for all roadway users.

Policy CM-1.4: **Speed Management.** Include speed reducing elements along local and connector roadways and within all new private development projects.

Goal CM-2: **Build and maintain a transportation system that accommodates future growth and maintains transportation networks for all modes.**

Policy CM-2.3: **Intersection Design.** Prioritize safety and mobility for non-motorized modes in all intersection designs.

Policy CM-2-8: **Growth Management.** Ensure that the cumulative and regional impacts of new development on the circulation system are mitigated to the extent feasible, concurrent with development. Concurrent shall mean that required facilities are installed as needed during various stages of development.

Goal CM-4: **Build and maintain a transportation system that enhances quality of life and public health.**

Policy CM-4.3:	Access to Parks and Open Space. Prioritize investments that expand access to Palmdale’s parks and trails and support physical activity.
Policy CM-4.4:	Neighborhood Streets. Create neighborhood streets that unify neighborhoods, reduce vehicle speeds, reduce barriers for people walking, biking, and riding transit, and provide connectivity to connector and regional routes.
Goal CM-6:	Build and maintain a transportation system that leverages the City’s natural setting and reduces impacts to the environment.
Policy CM-6.1:	Vehicle Miles Traveled. Prioritize transportation investments and strategies that create opportunities for residents to reduce Vehicle Miles Traveled.
Policy CM-6.2:	Multimodal Development. Encourage the development of dense, mixed-use, pedestrian-oriented land uses that link affordable housing options to daily needs.
Policy CM-6.3:	Transportation Demand Management. Promote trip reduction strategies, including telecommuting, through land-use decisions and TDM programming strategies.
Policy CM-6.5:	Landscaping. Incorporate appropriate landscaping elements as part of roadway projects.
Policy CM-8.3:	Right-of-Way. Ensure that right-of-way is reserved wherever possible to implement the mobility network illustrated in Figure 6.2.
Policy CM-8.5:	Residential Development. Require residential developments to contribute toward City programs to reduce vehicle trips.

Equitable and Healthy Communities Element

Goal EHC-11:	Encourage neighborhoods that support safe pedestrian, bicycle, and public transit access for people of all ages, income levels, and cultural backgrounds.
Policy EHC-11.2:	Complete Streets. Prioritize transportation system improvements that promote Complete Streets objectives, incorporate universal design principles, and encourage walking, biking, and transit use in disadvantaged communities.
Policy EHC-11.3:	Improve Connectivity. Strive for a high level of connectivity of residents to Village Centers and neighborhood services through site design, open space linkages, and bicycle facilities, integrate land use and transportation infrastructure to support a connected system of sidewalks, bikeways, greenways, and transit.
Policy EHC-16.1:	<p>Pedestrian and bicyclist safety. Strive for a safe transportation system by making transportation improvements in areas with a high incidence of collisions, injuries, and death, especially for pedestrians and bicyclists. Street improvements may include the following:</p> <ul style="list-style-type: none"> • Marked crosswalks • Bicycle lanes • Traffic calming

Parks, Recreation and Open Space Element

- Goal PR-2:** **Promote bicycling as an important mode of transportation and recreation in the City of Palmdale.**
- Policy PR-2.1:** **Bikeway Network.** Encourage bicycle use by developing a comprehensive bikeway network for the city that meets access needs of all bicyclists.

Public Facilities, Services, and Infrastructure Element

- Policy PFSI-5.3:** **Off-Site Fair Share Contribution.** Require all new development, including major modifications to existing development, to construct or provide a fair share contribution toward construction of required off-site improvements, needed to support the project. This includes a fair share contribution toward development of regional master facility plans for roads, sewer, water, drainage, schools, libraries, parks, fire, and other community facilities, prior to granting approval of development applications.
- Policy PFSI-5.7:** **Adjacent Development Integration.** Require that individual development projects integrate with adjacent development with respect to backbone infrastructure (streets, sewer, water, and drainage). If adjacent property is undeveloped, a conceptual plan should be prepared to show that the pending development will allow for future integration and development of adjacent properties in a manner which is reasonable from a design, construction, and cost standpoint.

Safety Element

- Policy SE-2.7:** **Emergency Access Routes for Wildfire Hazard Zones.** Require all new development in or near designated wildfire hazard zones to identify multiple evacuation/emergency access routes and file with City.

Sustainability, Climate Action, and Resilience Element

- Goal SCR-4:** **Reduced Greenhouse Gas Emissions from Transportation SB 379, EO N-79-20).**
- Policy SCR-4.1:** **Bike Facilities.** Promote bicycle use with new private development projects through requirements for bicycle parking, lockers and showers, bike share facilities, and when feasible, connections to City bike lanes.
- Policy SCR-4.7:** **Pedestrian and Cyclist Safety.** Promote bicycle and pedestrian modes of travel by promoting pedestrian and cyclist safety.

Air Quality Element

- Goal AQ-1:** **Minimize Local Air Pollution Caused by Motor Vehicles.**

- Policy AQ-1-8:** **Environmentally Review New Development.** Use the environmental review process for new development applications to assess and, as necessary, mitigate the impacts of new development related to increased vehicle miles traveled.
- Goal AQ-3:** **Reduction and/or Elimination of unnecessary Sources of Air Pollution.**
- Policy AQ-3-3:** **Complete Streets.** Design a more effective street system by emphasizing complete streets which accommodate all modes of transportation.

4.17.3 ***THRESHOLDS FOR DETERMINING SIGNIFICANCE***

According to Appendix G of the CEQA Guidelines, a project will normally have a significant adverse environmental impact on transportation if it would:

- Threshold TR-1** Conflict with program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities.
- Threshold TR-2** Conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b).
- Threshold TR-3** Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment).
- Threshold TR-4** Result in inadequate emergency access.

4.17.4 ***ENVIRONMENTAL IMPACT***

Impact Analysis

- Threshold TR-1** Would the Project conflict with an applicable plan, ordinance or policy establishing Conflict with program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?

Less Than Significant Impact with Mitigation Incorporated.

Project development will provide more than seven miles of new trails, that include internal bicycle and pedestrian trails and links to adjacent and nearby regional trails. Project development will support adopted policies or plans supporting alternative transportation modes.

The Project will have an extensive trail and pedestrian circulation system, as shown on **Exhibit 4.16-4 (Conceptual Trail Plan)**. The Project frontage along Avenue S will feature an eight-foot-wide asphalt bicycle trail that extends 1,180 linear feet and will provide connections to the greenbelt multi-purpose trail in the Project interior and to the Antelope Valley Backbone Trail.

Quail Valley trails will encompass a full range of options from simple semi-unimproved trails along the hillsides to a more formal 12-foot-wide multi-use trail that will extend the north-south length of the Project. Incorporating the multi-use trail within the central greenbelt corresponds to the Antelope Valley Backbone

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Trail system by providing connections to that Trail system on the Project's northern and southern boundaries. The multi-purpose trail extends 10,493 linear feet. The adjacent five-foot-wide greenbelt sidewalk extends 6,015 linear feet.

The street surrounding the central circle area of the Project (noted as "R" Street) will include a six-foot wide sidewalk and bicycle lanes within its 79-foot right-of-way. The 12-foot-wide multi-purpose trail within the central greenbelt meanders the eastern perimeter of the central circle area. A five-foot-wide decomposed granite trail will extend 1,662 linear feet along the west side of the central circle. Planning Area 2 will include an eight-foot-wide, 11,820 linear foot, private decomposed granite trail system that will connect to the 12-foot-wide multi-purpose trail and proceed westerly along "E" Street across Tovey Avenue. In addition, five-foot-wide unimproved trails are planned for 12,737 linear feet within the upper areas of the undeveloped portion of Area A. These will provide looped pathways and connect to the existing off-site trail network.

The multiple trail options allow for pedestrian, bicycle and equestrian users in a manner stipulated in the Palmdale General Plan Parks, Recreation, and Trails Element.

Project Trip Generation and Design Hour Volumes

Table 4.17-1 (Project Trip Generation) presents the estimated number of daily vehicular trips the Project would generate and the number of AM and PM peak hour vehicle trips. The Updated October 2023 "Traffic Study" conducted for the Project presents trip equations and peak hour directional splits for ITE Land Use Code 210 (Single-Family Detached Housing) to estimate Project trips for adjacent street traffic based on information provided by the Project Applicant.

Project Peak Hour Traffic movements are depicted in **Exhibit 4.17-1** below.

Table 4.17-2 (Project Trip Distribution) presents distribution of Project peak hour trips and represents movement of traffic accessing the Project site by direction. Project trip distribution in the "Traffic Study" was developed based on the Project site location and travel patterns anticipated for the proposed residential land use.

Table 4.17-1 – Project Trip Generation					
Development Type	Daily Trips	AM Peak Hour Trips		PM Peak Hour Trips	
	ADT	Into Project	Out of Project	Into Project	Out of Project
730 Single-Family Residences	6,283	118	336	406	238

Source: Traffic Study for Quail Valley Residential Development, Located Along Avenue S & West of State Route 14, Palmdale, California prepared by Ruettgers & Schuler Civil Engineers dated October 2023.

Table 4.17-2 – Project Trip Distribution	
Direction	Percentage
North	35
South	35
East	15
West	15

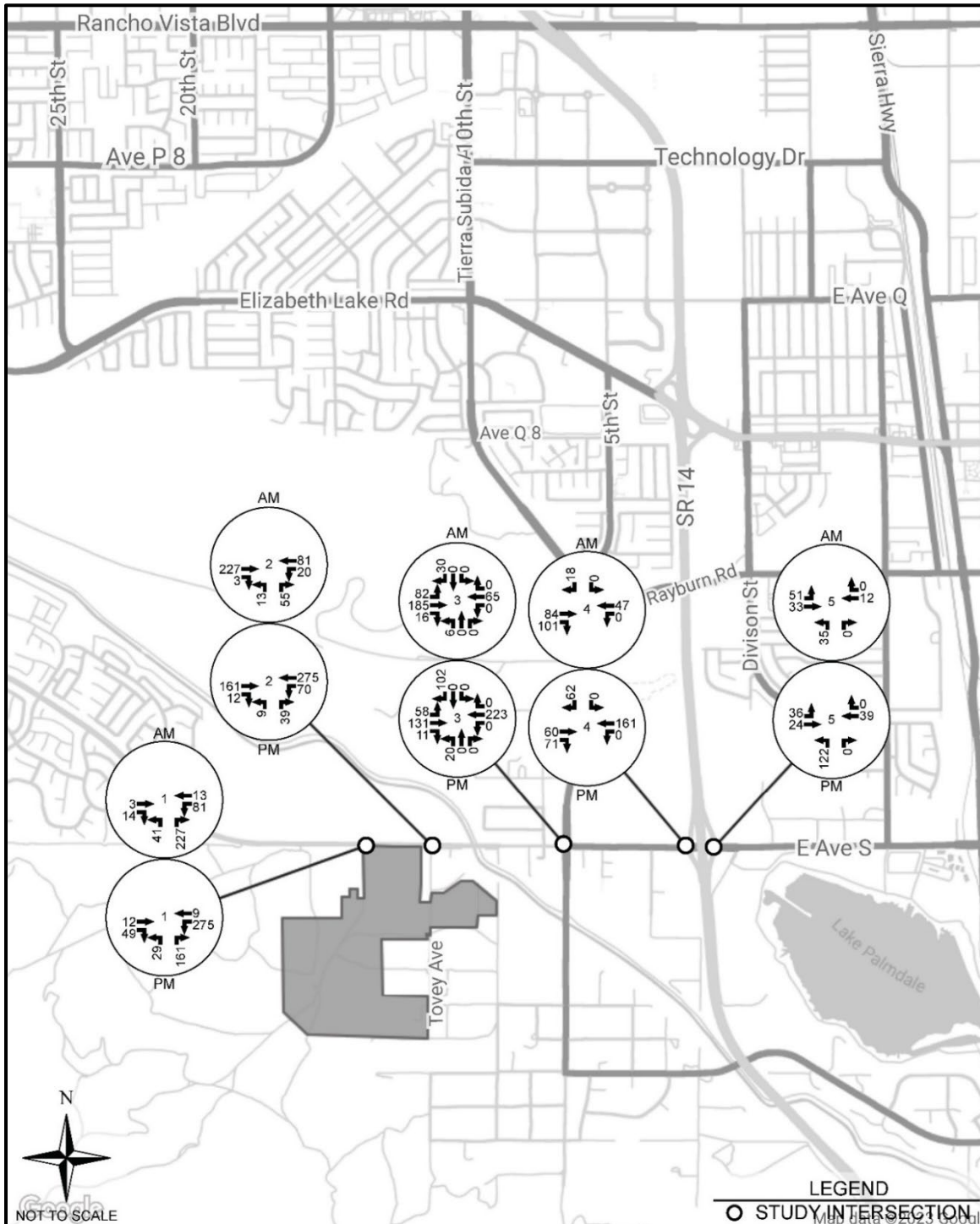
Traffic Volumes

Ruettgers & Schuler estimated existing peak hour volumes for 2023 by applying an annual growth rate of one percent to historical count data. Using this data, the one percent annual growth rate was applied to 2023 peak hour volumes to estimate peak hour projections for years 2027 and 2040. Peak hour trips generated by pending land developments located within 2.5 miles of the Project site, which are listed below, were added to peak hour projections.

- Falcon Glen: 718 single-family residences; northwest quadrant of Avenue S/Tierra Subida Avenue
- Ritter Ranch: 915 single-family residences, 265 multi-family residences, public park (25.5 acres), and elementary school (660 students); north of West Avenue S and south of Elizabeth Lake Road, approximately four miles west of State Route 14

The following **Exhibits 4.17-2** through **4.17-8** provide peak hour volumes for the years 2027 and 2040 traffic volume projections plus pending and additional development trips.

EXHIBIT 4.17-2 – PROJECT PEAK HOUR TRAFFIC

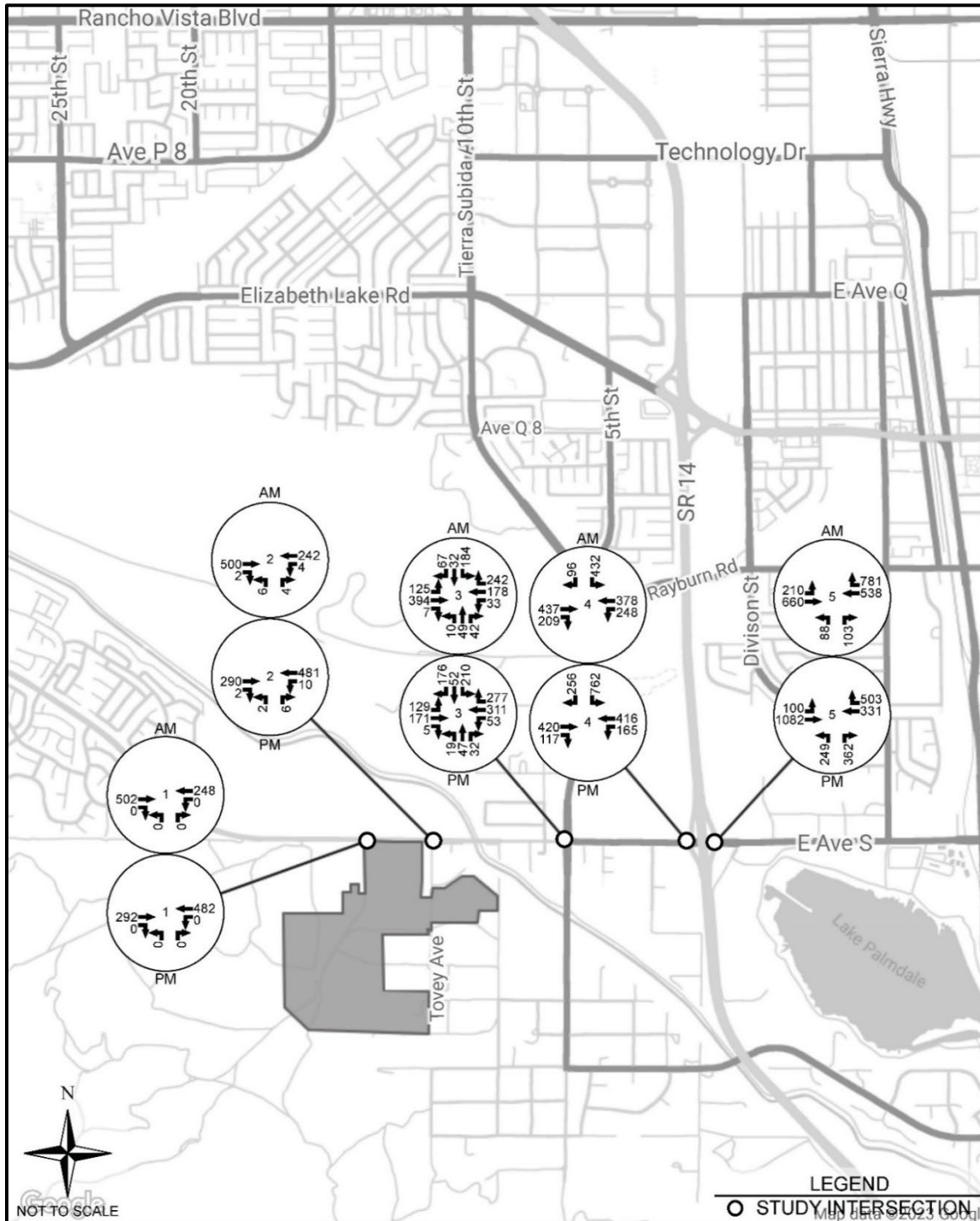


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EXHIBIT 4.17-3 – 2023 PROJECT PEAK HOUR TRAFFIC

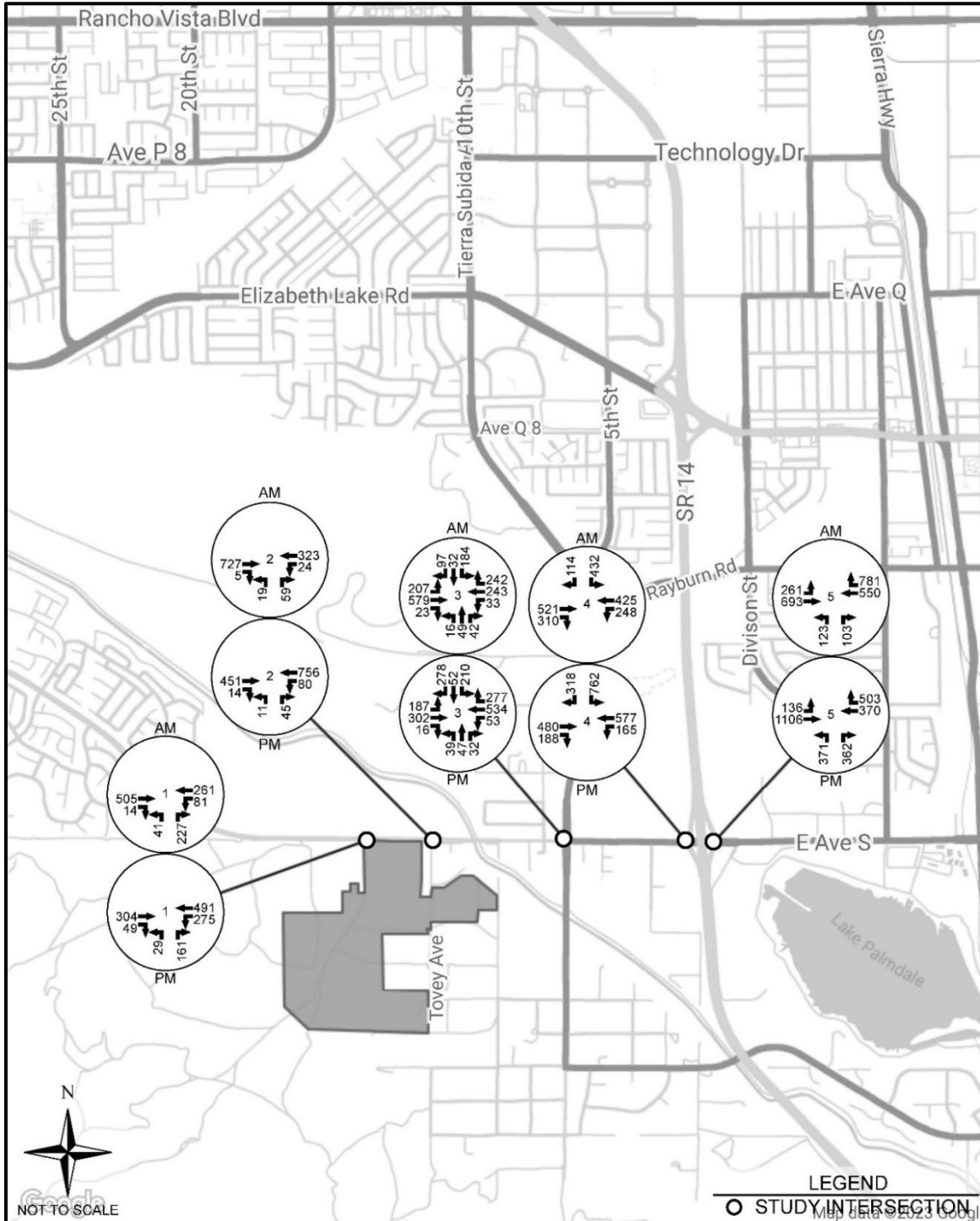


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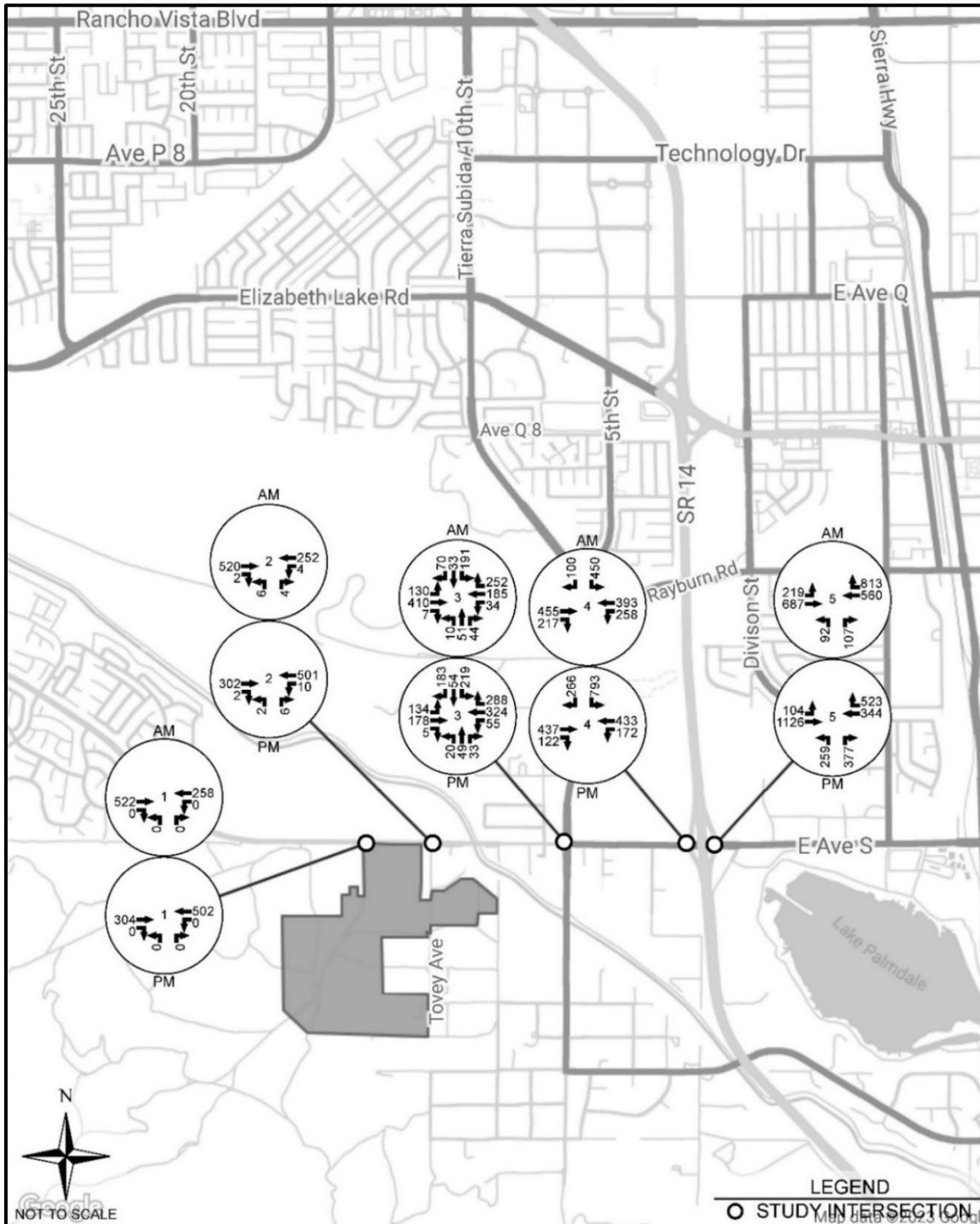
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EXHIBIT 4.17-4 – 2023+ PROJECT PEAK HOUR TRAFFIC



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EXHIBIT 4.17-5 – 2027 PEAK HOUR TRAFFIC

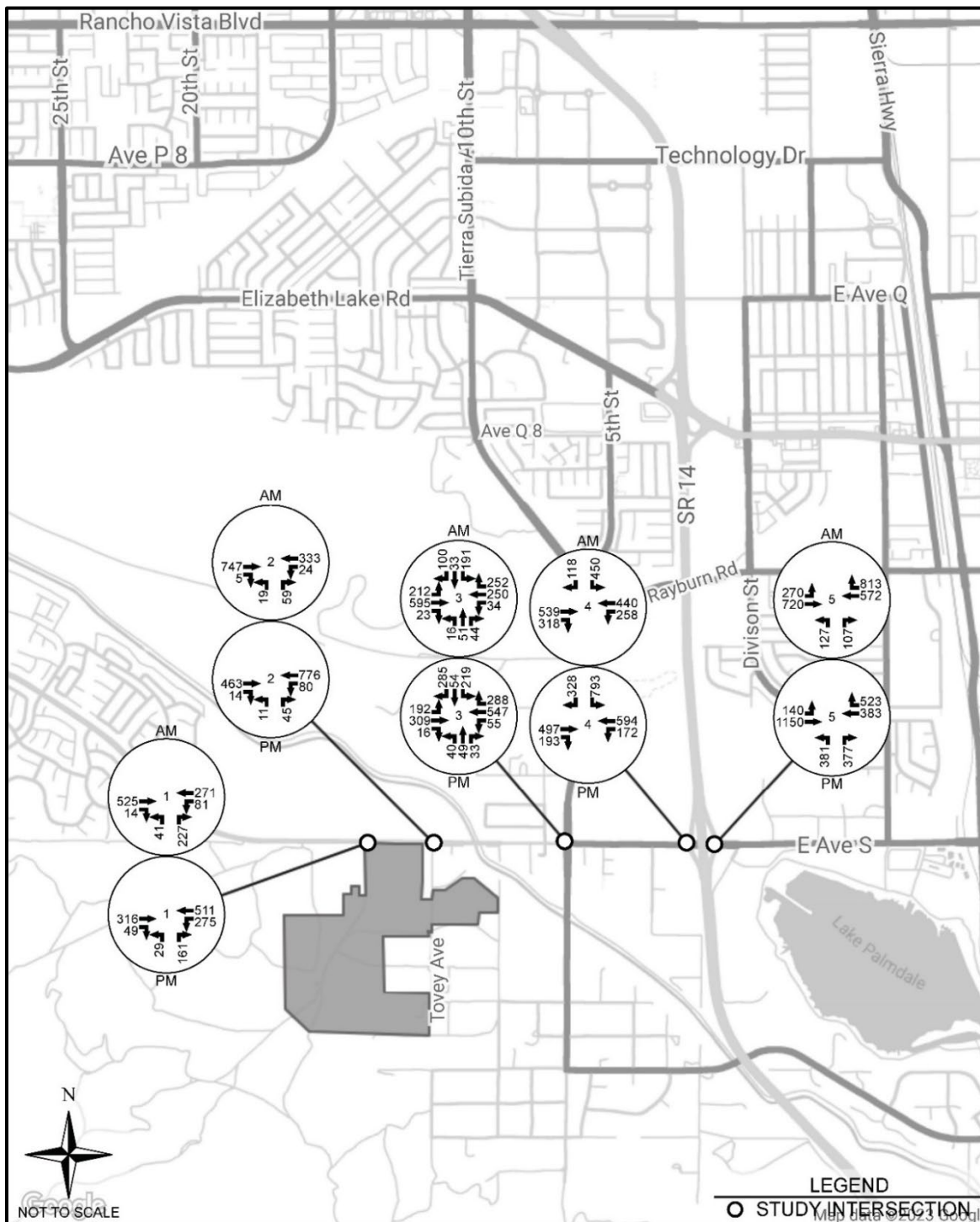


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EXHIBIT 4.17-6 – 2027+ PROJECT PEAK HOUR TRAFFIC

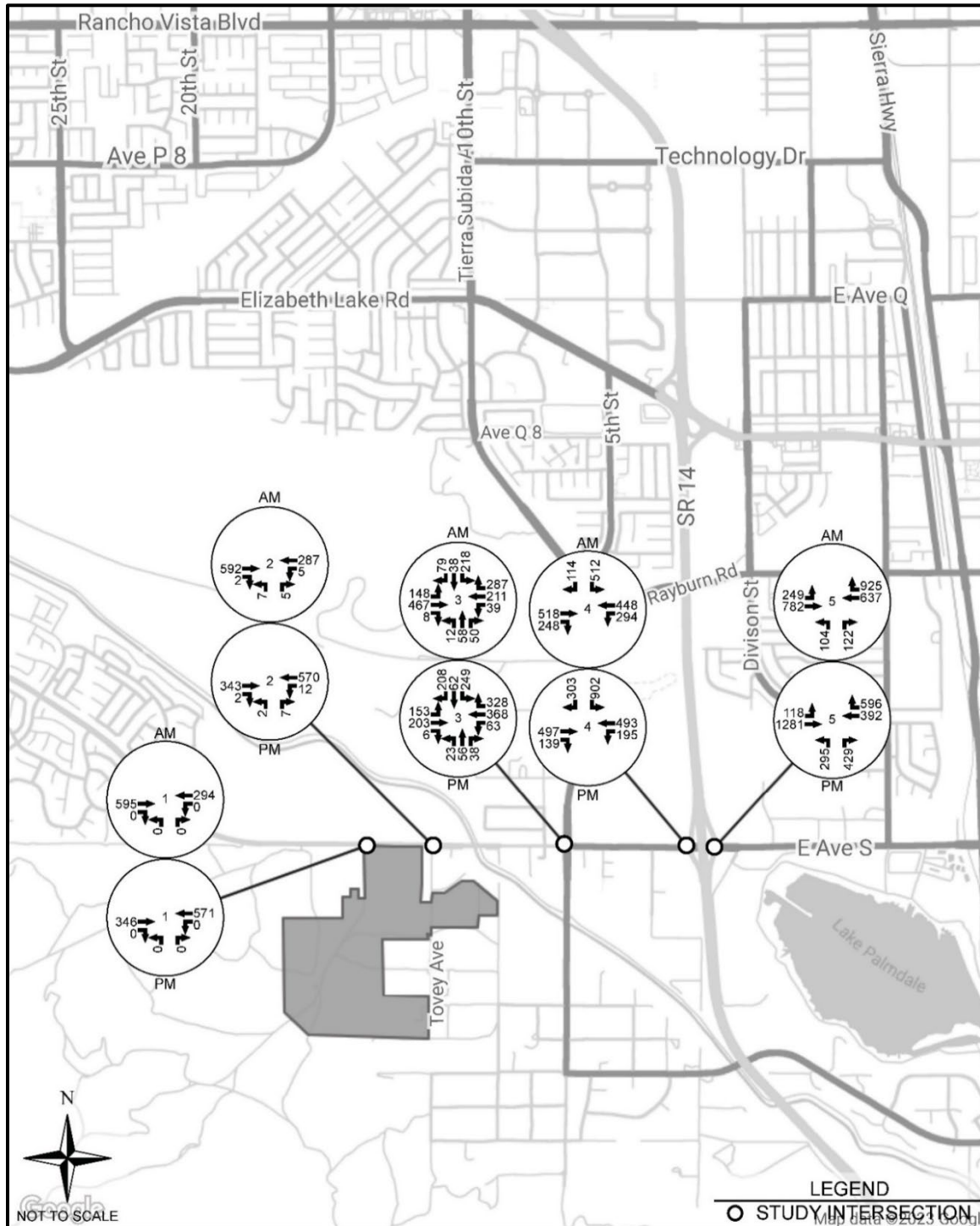


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EXHIBIT 4.17-7 – 2040 PEAK HOUR TRAFFIC

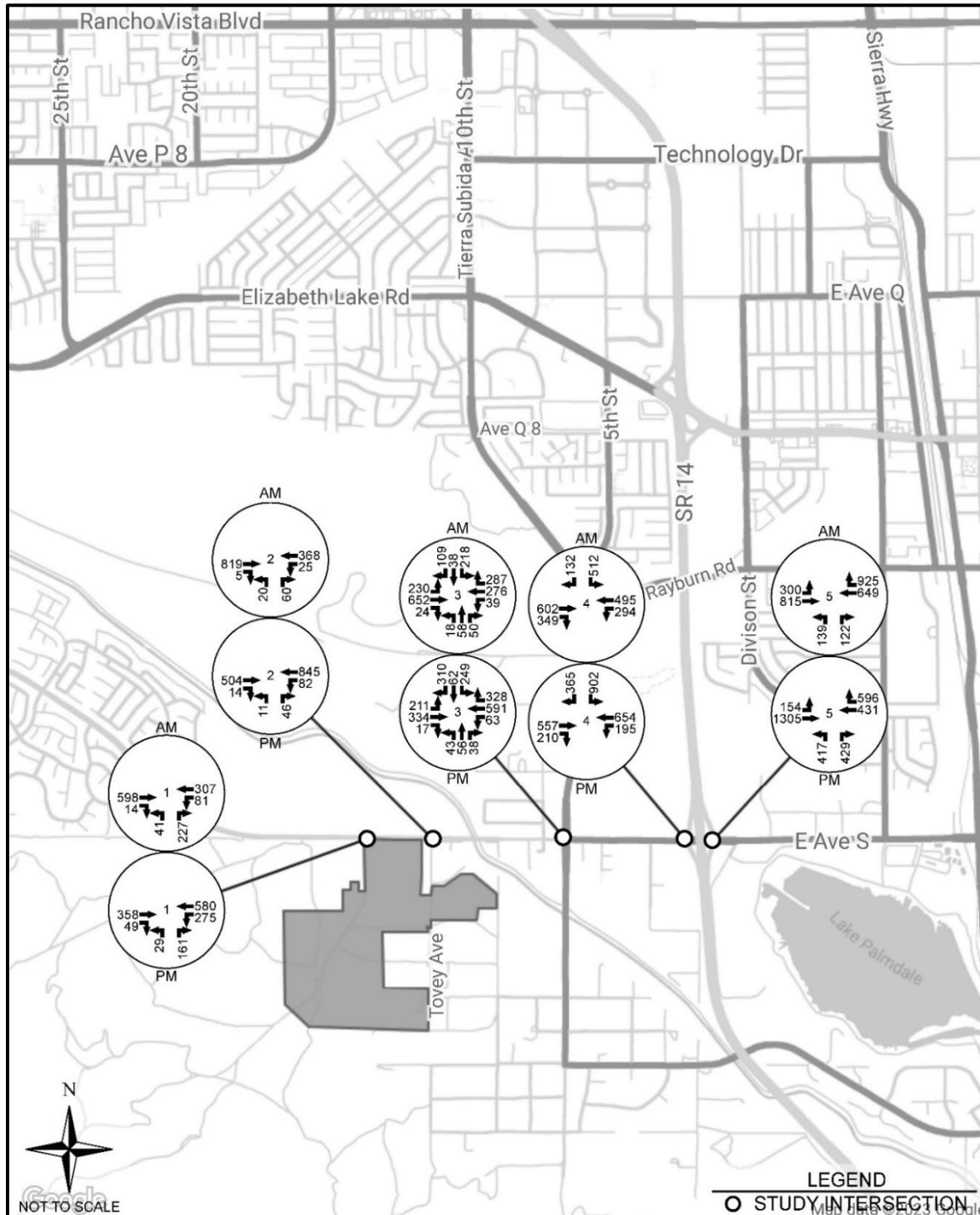


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EXHIBIT 4.17-8 – 2040+ PROJECT PEAK HOUR TRAFFIC



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Intersection Analysis

Ruettgers & Schuler conducted a capacity analysis of study area intersections using Synchro software from Trafficware, which uses capacity analysis methodology in the Transportation Research Board's *Highway Capacity Manual* (HCM) for each of the six yearly scenarios identified in **Exhibits 4.17-3** through **4.17-8** above.

Based on a review of potential draw from population centers in the region, type of land use involved, and input from the City of Palmdale Public Works Department, the Project would generate an estimated 6,283 average daily trips that would be distributed as follows: North – 35 percent (2,199 ADT); South – 35 percent (2,199 ADT); East – 15 percent (942 ADT); and West – 15 percent (942 ADT).

The City of Palmdale General Plan and Public Works Traffic Department indicates the minimum acceptable LOS standard for intersections is LOS “D” during peak hours and LOS “C” during non-peak hours. The Traffic Study prepared for the Project states that a significant impact would occur at an intersection when the addition of Project traffic would cause an intersection to degrade below a LOS “D” or the addition of Project traffic would cause a 2 percent increase in the delay at an intersection already operating below Level of Service “D.” According to *Envision Palmdale 2045* and the City of Palmdale Public Works Department staff, the minimum acceptable Level of Service for intersections during peak hours is LOS D. A significant impact would occur when addition of Project traffic either (1) causes an intersection to degrade below LOS D, or (2) results in a two percent increase in delay at an intersection operating below LOS D prior to the addition of Project traffic. **Tables 4.17-3** through **4.17-6** present LOS for study area intersections. Presents Level of Service Criteria for Signalized Intersections.

Table 4.17-3 (Level of Service (LOS) Criteria for Unsignalized Intersections) presents the criteria for intersection LOS.

Table 4.17-3 – Level of Service (LOS) Criteria for Unsignalized Intersections		
Average Control Delay (Seconds/Vehicle)	Level of Service	Expected Delay to Minor Street Traffic
< 10	A	Little or no delay
>10 and < 15	B	Short traffic delays
>15 and < 25	C	Average traffic delays
>25 and < 35	D	Long traffic delays
>35 and < 50	E	Very long traffic delays
>50	F	Extreme delays

Source: Traffic Study, Quail Valley Residential Development Avenue S & West of SR-14, Palmdale, California prepared by Ruettgers & Schuler Civil Engineers dated October 2023

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Table 4.17-4 – Level of Service (LOS) Criteria for Signalized Intersections		
Average Control Delay (Seconds/Vehicle)	Level of Service	Volume-to-Capacity Ratio
≤ 10	A	< 0.60
$> 10 \text{ and } \leq 20$	B	0.61 – 0.70
$> 20 \text{ and } \leq 35$	C	0.71 – 0.80
$> 35 \text{ and } \leq 55$	D	0.81 – 0.90
$> 55 \text{ and } \leq 80$	E	0.91 – 1.00
> 80	F	> 1.00

Source: Traffic Study, Quail Valley Residential Development Avenue S & West of SR-14, Palmdale, California prepared by Ruetters & Schuler Civil Engineers dated October 2023

The following **Tables 4.17-5** and **4.17-6** present peak hour levels of service for study are intersections.

Table 4.17-5 – Intersection Level of Service Weekday PM Peak Hour							
Intersection	Control	2023	2023 + Project	2027	2027 + Project	2040	2040 + Project
Project Entrance & West Avenue S	NB	-	B	-	B	-	B
Tovey Avenue & West Avenue S	NB	B	B	B	B	B	B
Tierra Subida Avenue & West Avenue S	Signal	B	C	B	C	C	D
State Route 14 Southbound Ramps & West Avenue S	Signal	C	C	C	D	D	D
State Route 14 Northbound Ramps & West Avenue S	Signal	C	C	C	C	C	C

Table 4.17-6 – Intersection Level of Service Weekday AM Peak Hour							
Intersection	Control	2023	2023 + Project	2027	2027 + Project	2040	2040 + Project
Project Entrance & West Avenue S	NB	-	A	-	B	-	C
Tovey Avenue & West Avenue S	NB	B	C	B	C	B	C
Tierra Subida Avenue & West Avenue S	Signal	B	B	B	B	B	C
State Route 14 Southbound Ramps & West Avenue S	Signal	C	C	C	C	C	C
State Route 14 Northbound Ramps & West Avenue S	Signal	C	C	C	C	D	D

According to the data shown on **Tables 4.17-5** through **4.17-6** regarding the LOS for the study area intersections, all intersections within the study area operate at acceptable LOS in the existing year. For Build Year/Build Year Plus Cumulative, all intersections would operate at acceptable LOS in 2040 with Project traffic added.

Traffic Signal Warrant Analysis

The Traffic Study prepared for the Project evaluated peak hour signal warrants for each existing unsignalized intersection within the study area based on the *California Manual on uniform Traffic Control Devices* (CA MUTCD). Peak hour signal warrants assess delay to traffic on minor street approaches when entering or crossing a major street. A signal warrant defines the minimum condition under which signalization of an intersection might be warranted. Meeting this threshold does not suggest traffic signals are required; rather, it suggests that other traffic factors and conditions be considered to determine whether signals are justified. Also, signal warrants do not necessarily correlate with LOS. An intersection may satisfy a signal warrant condition and operate at an acceptable LOS, or operate below an acceptable LOS and not meet signal warrant criteria. Signal warrant analysis results for AM and PM peak hours are presented below in **Tables 14.17-7** through **14.17-8**

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Table 4.17-7 – Traffic Signal Warrants - Weekday PM Peak Hour			
		Project Entrance at Avenue S	Tovey Avenue at Avenue S
2023	Major Street Total Approach Volume	-	801
	Minor Street High Approach Volume	-	4
	Warrant Met	-	NO
2023+ Project	Major Street Total Approach Volume	1,109	1,388
	Minor Street High Approach Volume	190	52
	Warrant Met	YES	NO
2027	Major Street Total Approach Volume	-	2,143
	Minor Street High Approach Volume	-	4
	Warrant Met	-	NO
2027+ Project	Major Street Total Approach Volume	2,397	2,463
	Minor Street High Approach Volume	190	52
	Warrant Met	YES	NO
2040	Major Street Total Approach Volume	-	2,720
	Minor Street High Approach Volume	-	5
	Warrant Met	-	NO
2040+ Project	Major Street Total Approach Volume	3,045	3,307
	Minor Street High Approach Volume	190	53
	Warrant Met	YES	NO

Table 4.17-8 – Traffic Signal Warrants - Weekday AM Peak Hour			
		Project Entrance at Avenue S	Tovey Avenue at Avenue S
2023	Major Street Total Approach Volume	-	771
	Minor Street High Approach Volume	-	5
	Warrant Met	-	NO
2023+ Project	Major Street Total Approach Volume	865	1,144
	Minor Street High Approach Volume	268	72
	Warrant Met	YES	NO
2027	Major Street Total Approach Volume	-	1,883
	Minor Street High Approach Volume	-	5
	Warrant Met	-	NO
2027+ Project	Major Street Total Approach Volume	2,002	1,964
	Minor Street High Approach Volume	268	72
	Warrant Met	YES	NO
2040	Major Street Total Approach Volume	-	2,331
	Minor Street High Approach Volume	-	7
	Warrant Met	-	NO
2040+ Project	Major Street Total Approach Volume	2,424	2,704
	Minor Street High Approach Volume	268	74
	Warrant Met	YES	NO

It is important to note that a signal warrant defines the minimum condition under which signalization of an intersection might be warranted. Meeting this threshold does not suggest that traffic signals are requisite; rather, that other traffic factors and conditions be considered to determine whether signals are truly justified. It also is noted that signal warrants do not necessarily correlate with Level of Service. An intersection may satisfy a signal warrant condition and operate at an acceptable Level of Service, or operate below an acceptable Level of Service and not meet signal warrant criteria.

Queue Length Analysis

The Traffic Study analyzed queue lengths for two State Route 14 off-ramps using existing and future peak hour volumes, both with and without Project traffic. The analysis was conducted using Synchro software that calculates queue lengths following HCM methodologies. The following **Tables 4.17-9** and **4.17-10** present ramp storage and queue lengths.

Table 4.17-9 – Queue Length Analysis - Weekday PM Peak Hour				
Intersection	State Route 15 Southbound Off Ramp & Avenue S		State Route 15 Northbound On Ramp & Avenue S	
Movement	SBL	SBR	NBL	NBR
Ramp Length	970	970	910	910
2023	451	127	211	171
2023 + Project	498	164	273	174
2027	522	237	342	205
2027 + Project	534	258	356	210
2040	562	543	499	257
2040 + Project	614	629	501	266

Table 4.17-10 – Queue Length Analysis - Weekday AM Peak Hour				
Intersection	State Route 15 Southbound Off Ramp & Avenue S		State Route 15 Northbound On Ramp & Avenue S	
Movement	SBL	SBR	NBL	NBR
Ramp Length	970	970	910	910
2023	317	13	70	37
2023 + Project	350	17	90	38
2027	367	25	113	45
2027 + Project	376	27	118	46
2040	395	57	165	56
2040 + Project	432	66	166	58

In summary, the updated Traffic Study prepared for the Project states as follows:

- “All study intersections are expected to operate with minimal delay during peak hours through the year 2040, both with and without project traffic.”
- “Peak hour signal warrants were applied to the two unsignalized intersections within the study [area]. Signal warrant conditions were met for the intersection of Project Entrance/West Avenue S (#1) for all ‘+Project’ scenarios. The intersection of Tovey Avenue/West Avenue S (#2) did not meet peak hour signal warrant criteria for any traffic analysis scenario.”
- “It is anticipated that a traffic signal will be installed at the project entrance at some point, depending on timing of development.”
- “The addition of project peak hour traffic does not extend vehicle queues on the northbound State Route 14 off-ramp at Avenue S into the freeway mainline through the year 2040. The same is true for the southbound State Route 14 off-ramp at Avenue S.”

Los Angeles County Congestion Management Program

The Los Angeles County Congestion Management Program (CMP) has as its purpose to address the impact of local growth on the regional transportation system by linking local land use decisions with their impacts on regional transportation and air quality, as well as by coordinating County-wide efforts regarding transportation solutions that employ all modes of travel. The CMP recommends various methodologies for intersection and freeway segment analyses to determine the impact a project has on a CMP facility. The CMP states, "...a significant impact occurs when the proposed project increases traffic demand on a CMP facility by 2percent of capacity ... causing LOS F ...; if the facility is already at LOS F, a significant impact occurs when the proposed project increases traffic demand on a CMP facility by 2 percent of capacity...."

The Los Angeles County CMP identifies SR-14 as a CMP facility. Therefore, the following intersections and freeway segments are included in the CMP study area:

Intersections

- Avenue S and SR-14 Northbound Ramps
- Avenue S and SR-14 Southbound Ramps

Freeway Segments

- SR-14 South of Avenue S
- SR-14; Avenue S to Palmdale Boulevard (State Route 138)

The CMP intersection and roadway analysis states that all roadways and intersections within the CMP study area operate at acceptable levels of service in the existing year. However, the analysis also indicated that by build year 2026, it is anticipated that the intersections of the SR-14 ramps at Avenue S will operate below an acceptable level of service prior to the addition of Project traffic for the PM peak hour only. It is also anticipated that the SR-14 Freeway segment south of Avenue S will operate below an acceptable level of service prior to the addition of Project traffic. After the addition of the Project traffic, it is anticipated that the SR-14 Freeway segment between Avenue S and Palmdale Boulevard (SR-138) will operate below an acceptable level of service. However, the addition of Project traffic to the previously mentioned intersections and freeway segments does not create a significant impact per CMP standards.

Threshold TR- 2 Would the Project conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b).

Significant and Unavoidable Impact.

Ruettgers & Schuler conducted a Vehicle Miles Traveled (VMT) Analysis of anticipated Project-generated traffic. The VMT Analysis involved comparing an estimate of VMT attributable to the Project as a baseline VMT and assessing whether Project VMT would result in a significant transportation impact under CEQA Guidelines (2021) Thresholds of Significance. The SCAG Regional Transportation Plan/Sustainable Communities Strategies (RTP/SCS) travel demand model informed the Project VMT Analysis. LSA Associates prepared the model runs following guidance provided in the Los Angeles County Department of Public Works *Transportation Impact Analysis Guidelines* (July 23, 2020), which have been adopted by the City of Palmdale.

The VMT model run was updated according to a model socioeconomic database, incorporated Project-proposed uses, and assumed a persons per dwelling unit factor of 3.6. The VMT Analysis found that, based on VMT Guidelines, Project operation would have a significant VMT impact if Project VMT per capita exceeds 18.6, or 16.8 percent lower than the existing baseline VMT (22.3) for the region. **Table 4.17-11**

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presents a summary of the North Los Angeles County VMT per capita threshold and the Project VMT per capita and thereby demonstrates Project VMT per capita is greater than the regional threshold. Therefore, based on the VMT Guidelines, Project operation will result in a significant VMT impact.

Table 4.17-11 – Regional and Project VMT Per Capita/Regional				
North County Threshold*	Project Base/Cumulative	Difference Base/Cumulative	Reduction Needed Base/Cumulative	Significant Impact
18.6	27.6/26.7	9.0/8.1	32.6%/30.3%	Yes

*Obtained from Los Angeles County Transportation Impact Analysis Guidelines (July 23, 2020), Table 3.1.3-2

Threshold TR-3 Would the Project substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?

No Impact.

The main entry road is planned as a modified connector roadway. Primary access to the Project site is via Avenue S, approximately 1 mile west of California SR-14. The Avenue S median will be modified to incorporate a left-turn lane, with signalized intersection; the eastbound direction will include a dedicated right-turn lane. The Avenue S / A Street intersection will be signalized. Secondary access will be provided via Tovey Avenue with an engineered roundabout designed to slow vehicular traffic leaving the Project. Approximately 20 percent of Project traffic is anticipated to use Tovey Avenue. The increased vehicle use of Tovey Avenue is within design standards as discussed in the Traffic Impact Analysis prepared for the Project. The Project internal roadway system will be comprised of private streets extending as a series of curvilinear connector and local streets and traffic calming roundabouts, as shown on **Exhibit 4.17-1 (Project Vicinity Circulation Map)** and **Exhibit 4.17-2 (Street Sections)**. Project design will not increase hazards due to any design features. Roadways throughout the Project will meet City of Palmdale design standards. Therefore, no impact will result.

Threshold TR-4 Would the Project result in inadequate emergency access?

Less Than Significant Impact.

Primary ingress to the Project site will be via Avenue S, approximately 1 mile west of SR-14. The median strip of westbound Avenue S will be modified to include a left-turn lane into the Project site and eastbound Avenue S will include a dedicated right-turn lane into the Project site at A Street. The Avenue S/A Street intersection will be signalized. The 92-foot-wide entry drive A Street will be gated at two points internal to the Project. Direct non-gated vehicular access will be available to Planning Areas 2 and 5.

Secondary vehicular access to the Project site will be provided via the existing publicly-dedicated Tovey Avenue. Approximately 20 percent of Project traffic (primarily from Planning Areas 2 and 3) is anticipated to use Tovey Avenue.

All roadways throughout the Project will meet City of Palmdale design standards. The Project's internal roadway system will be comprised of a street network of a series of curvilinear connector, local streets, rural streets, and traffic calming roundabouts that serve the Project neighborhoods.

The central circle street will be sufficiently wide to accommodate one through lane in each direction, plus a center left-turn lane and on-street bicycle lanes. The roundabouts distributed throughout the Project will provide traffic control and traffic calming functions.

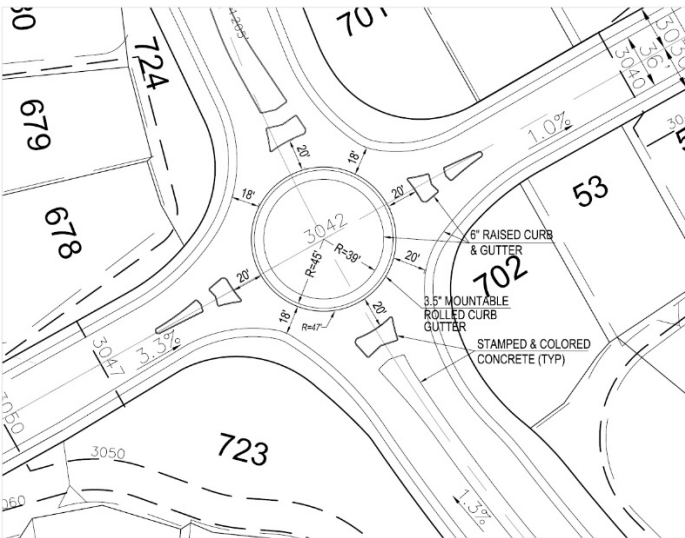
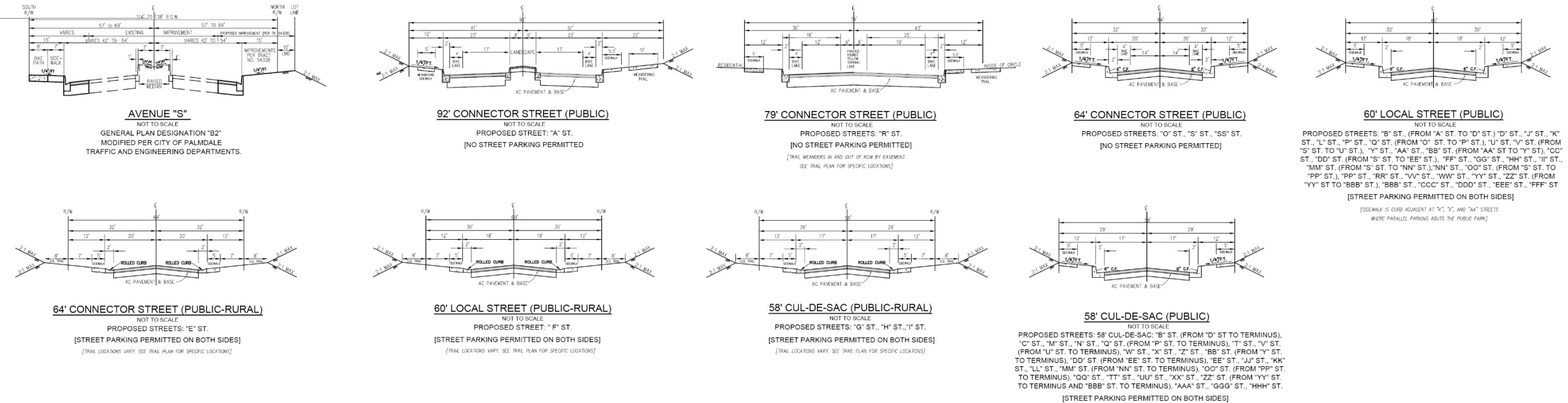
Emergency access will be facilitated to development Planning Areas within the Project site via direct vehicle routes from Avenue S and Tovey Avenue. Internal emergency access will not be affected negatively in that all Project interior streets are designed in compliance with City of Palmdale standards. The resultant level of impact on emergency service adequacy would be less than significant.

Development on the LAFCO-approved non-Quail Valley properties proposed for annexation would require site-specific environmental analysis of potential impacts pertaining to CEQA-identified Transportation topics for analysis. The non-Quail Valley areas within the overall annexation boundary include vacant lots, lots with existing housing, and the proposed Falcon Glen project area. It can be anticipated that residential development (allowing a maximum of up to 975 dwelling units on the Falcon Glen property) would occur within the Annexation areas and, thereby, would result in direct growth of population within those areas to be annexed to the City of Palmdale. This would necessitate the construction of new or expanded infrastructure in the vicinity of the Annexation area, including multiple accesses to the Falcon Glen project site from Avenue S and into the adjacent Anaverde Nuevo Specific Plan area., including continuing Cherry Blossom Street and Tangerine Street from Anaverde Nuevo to Falcon Glen. As a result of new development, additional impacts to Transportation would result from residential development in the proposed non-Quail Valley annexation areas. The Falcon Glen project is undergoing a separate approval process. The Transportation impacts of that project will be addressed as part of that project review. However, in coordination with the analysis of the Quail Valley project-specific transportation impacts, the Quail Valley Traffic Study (by Ruettgars and Schuller; updated August 2023, see references) includes the anticipated trip generation, distribution, and assignment from the pending Falcon Glen and the Ritter Ranch projects. The Falcon Glen property area is currently vacant land.

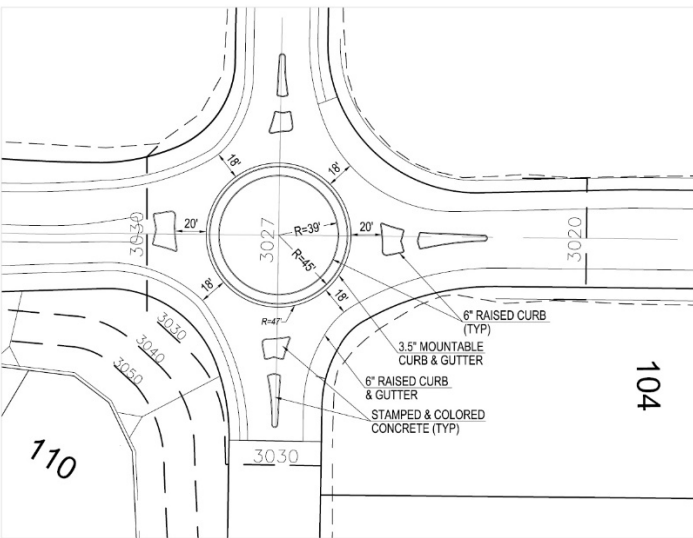
EXHIBIT 4.17-9 – STREET SECTIONS

STREET SECTIONS

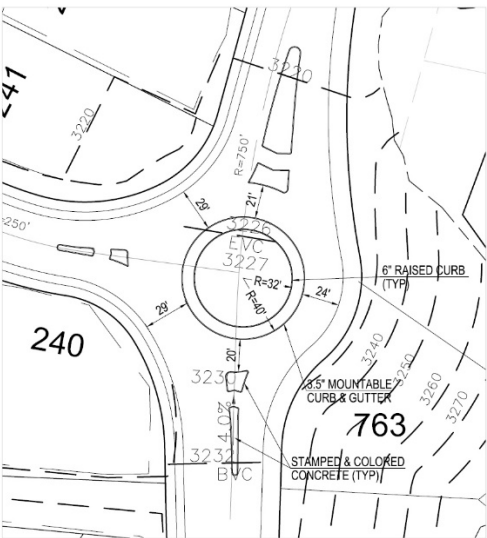
TYPICAL STREET SECTIONS:



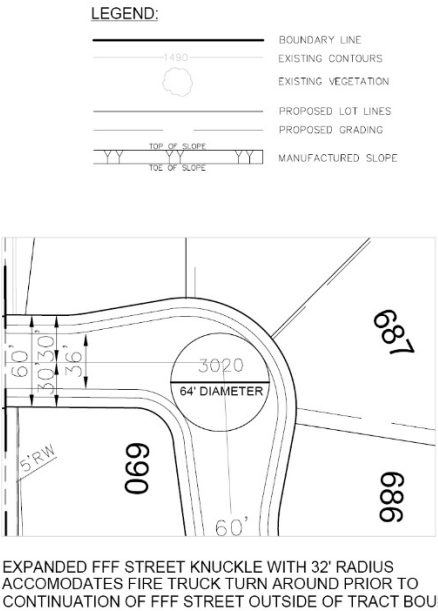
ROUNDBOUT DETAIL @
"A" ST/"SS" ST INTERSECTION
SCALE: 1" = 40'
** ROUNDBOUT DESIGNED BY
SCOTT RITCHIE, P.E.
ROUNDBOUTS & TRAFFIC ENGINEERING**



ROUNDBOUT DETAIL @
"A" ST/"E" ST/TOVEY RD INTERSECTION
SCALE: 1" = 40'
** ROUNDBOUT DESIGNED BY
SCOTT RITCHIE, P.E.
ROUNDBOUTS & TRAFFIC ENGINEERING**



ROUNDBOUT DETAIL (TYP.)
INTERSECTION OF "S" ST/"U" ST
INTERSECTION OF "S" ST/"Y" ST
INTERSECTION OF "S" ST/"FF" ST
INTERSECTION OF "S" ST/"OO" ST
SCALE: 1" = 40'
** ROUNDBOUT DESIGNED BY
SCOTT RITCHIE, P.E.
ROUNDBOUTS & TRAFFIC ENGINEERING**



EXPANDED FFF STREET KNUCKLE WITH 32' RADIUS
ACCOMMODATES FIRE TRUCK TURN AROUND PRIOR TO
CONTINUATION OF FFF STREET OUTSIDE OF TRACT BOUNDARY.
SCALE: 1" = 40'
DATE: OCTOBER 30, 2023

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4.17.5 CUMULATIVE IMPACTS

Project development in concert with other foreseeable development projects in the Project vicinity would yield a significant impact related to transportation. VMT Guidelines require the following for a Cumulative Impact Determination:

Land use projects that: (1) demonstrate a project impact after applying an efficiency based VMT threshold and (2) are not deemed to be consistent with the SCAG RTP/SCS could have a significant cumulative impact on VMT. Further evaluation would be necessary to determine whether the project's cumulative impact on VMT is significant. This analysis could be conducted by running the SCAG RTP/SCS Travel Demand Forecasting Model...."

As shown in **Table 4.17-11(Regional and Project VMT Per Capita/Regional)**, the Project is forecast to result in a significant VMT impact under base scenario. In addition, since the Project is consistent with Palmdale 2045, a cumulative impact determination for the Project was conducted using the SCAG RTP/SCS model future year scenario. **Table 4.17-12 (Regional and Project Cumulative Conditions VMT Per Capita)** presents a summary of the North Los Angeles County VMT per capita threshold and Project VMT per capita under cumulative conditions. The data in **Table 4.17-12** demonstrate the Project cumulative scenario VMT per capita is greater than the regional threshold. Therefore, based on the VMT Guidelines, Project operation will result in a significant cumulative VMT impact.

Table 4.17-12 – Regional and Project Cumulative Conditions VMT Per Capita				
North County Threshold*	Project (Cumulative Scenario)	Difference	Percentage Difference	Significant Impact
18.6	26.7	8.1	43.55%	Yes

All intersections within the Project vicinity would operate at acceptable levels of service after full Project build out (2035). However, implementation of **Mitigation Measure MM-TR-1** would not reduce the level of cumulative impacts to less than significant.

The non-Quail Valley areas within the overall annexation boundary include vacant lots, lots with existing housing, and the proposed Falcon Glen project area. Development on the annexed Falcon Glen project site could consist of as many as 975 dwelling units and a future 3,510 new residents. This scale of development would result in cumulative Transportation impacts to the Quail Valley Project area. VMT analysis within the Annexation area would depend on the determination of density and type of development of the undeveloped land within the Annexation area, the proximity to nearby uses, and other factors not yet determined. The Annexation area is zoned for residential development. The potential maximum density of the Falcon Glen project area is six dwelling units per acre. As the Ruetters and Schuler Analysis (see references) states, "...the reduction in VMT gained from the [project]improvements will be less than needed to reduce VMT to [a] less than significant [level].

4.17.6 LEVEL OF SIGNIFICANCE BEFORE MITIGATION

Project build out in years 2026 and 2035 (full build out) without Mitigation, would result in significant impacts to the Elizabeth Lake Road/Tierra Subida Avenue intersection and the Parkwood Drive/Avenue S intersection.

4.17.7 MITIGATION MEASURES

MM-TR-1 Prior to issuance of a Building Permit, the Project Applicant/Developer(s) shall pay the following proportionate shares of improvement costs, pursuant to the City of Palmdale Traffic Impact Fee schedule, as determined by the City Engineer.

Mitigation is required when project VMT is expected to cause a significant transportation impact under CEQA. For land development projects, VMT mitigation focuses on measures that reduce the number and length of project-generated single-occupant vehicle trips. A minimum reduction of 30 percent in Project VMT is needed to achieve a less than significant impact. The 2021 Ruetters & Schuler VMT Impact Analysis states that potentially feasible mitigation measures for land development projects include the following: changing project land use; implementing Transportation Demand Management (TDM) Strategies; and, adding off-site improvements.

Alternative Land Uses

The CAPCOA handbook for analyzing greenhouse gas emission reductions (December 2021) contains 34 “quantitative GHG reduction measures listed for the transportation sector. However, as Ruetters & Schuler have indicated “it appears that only the seven below could be applied at the project/site “scale” for a residential project located in a suburban ‘context’.”

- Increase Residential Density
- Provide Transit-Oriented Development
- Integrate Affordable and Below Market Rate Housing
- Provide Ridesharing Program
- Implement Subsidized or Discounted Transit Program
- ‘Limit Residential Parking Supply
- Unbundle Residential Parking Costs from Property Costs

Ruetters & Schuler further states that only an increase in residential density could be applied to the Quail Valley Project, based on “implementation requirements” city for each measure, which addresses VMT reduction achieved when a project has a residential density greater than the “blended” average for a “typical development” in the United States. The national average is 9.1 dwelling units per acre (which includes single-family residential dwellings, apartments, condominiums, and townhomes). Area A of the Quail Valley Project will have a residential density of 1.6 dwelling units per acre (and lower if the entire 878.1-acre Project site is considered).

Therefore, since the Quail Valley residential density is lower than the national average, “there would be no GHG emissions reduction benefit, and therefore, no project VMT reduction’ co-benefit’.”

Furthermore, incorporating alternative project land uses to reduce the number of external Project trips was investigated. Alternative land uses are not feasible on the Quail Valley Project site for the following reasons:

- The Project site is zoned for residential use.
- The area closest to Avenue S, which would be the most likely location for commercial or other land uses, is adjacent to existing residential development.

- The Project site is remote from existing commercial or office commercial development centers.
- The Project has very limited frontage on Avenue S, which is comprised of a detention basin that is not able to be relocated.
- There is a major dual gas line easement along Avenue S that requires a greater setback from Avenue S.

TDM Strategies

Although TDM strategies reduce VMT through incentives and disincentives often related to cost and convenience of vehicle travel, according to Los Angeles County Guidelines the effectiveness of TDM strategies in reducing project VMT must be supported with substantial evidence. The California Air Pollution Control Officers Association (CAPCOA) in 2010 published “Quantifying Greenhouse Gas Mitigation Measures, A Resource for Local Government to Assess Emission Reductions from Greenhouse Gas Mitigation Measures. This report provides assumptions, limitations, and methodologies for quantifying effectiveness of VMT mitigation measures.

TDM strategies are among the most effective VMT mitigators. However, Quail Valley Project location mitigation subcategory and global maximum VMT reduction allowed by CAPCOA all limit what VMT mitigation can be accomplished. The Quail Valley Project does include some VMT reduction strategies, such as robust pedestrian and bicycle trail systems. However, Ruettgers & Schuler state that “even if all feasible TDM strategies in the CAPCOA Report were implemented by the project, and the effectiveness of each such strategy were supported with substantial evidence, the maximum allowable reduction in project VMT would be capped at 15 percent (global maximum for suburban projects), which is half of what is needed to reduce the impact of project VMT to a less than significant level.”

Off-Site Improvements

Adding improvements to the transportation system in the Project site vicinity support alternate modes of transportation with the goal of reducing VMT by encouraging a mode shift in Project trips to transit, bicycling, or walking. However, Ruettgers & Schuler state that “substantial evidence would be needed to support the effectiveness of off-site improvements in reducing project VMT.”

Ruettgers & Schuler thereby conclude as follows: “even if all available mitigation measures were implemented, the project will still be expected to result in a significant transportation impact under CEQA for VMT.”

VMT Mitigation

Mitigation is required when Project VMT is expected to cause a significant transportation impact under CEQA. For land development projects, VMT mitigation focuses on measures that reduce number and length of single-occupant Project-generated vehicle trips. Potentially feasible Mitigation Measures for land development projects include the following:

- Changing Project land use
- Implementing Transportation demand Management (TDM) strategies
- Adding off-site improvements

The Ruettgers and Schuler Analysis addresses the potentially feasible Mitigation Measures as follows.

Alternative Land Uses

Ruettgers & Schuler determine “...alternative land uses are infeasible on the project site for the following reasons:

- The project site is currently zoned for residential use.
- The area closest to Avenue S, which would be the most likely spot for commercial or other land uses, is located adjacent to existing residential development.
- The project is located remotely from existing commercial or office commercial development centers.
- The project has very limited frontage on Avenue S which is comprised of a detention basin which is not able to be relocated.
- There is a major dual gas line easement along Avenue S requiring a further setback from Avenue S.”

Transportation Demand Management (TDM) Strategies

The Ruettgers and Schuler Report indicates that TDM strategies reduce VMT through incentives and disincentives often related to cost and convenience of vehicle travel. The Los Angeles County Guidelines state that effectiveness of TDM strategies in reducing project VMT must be supported with substantial evidence. LSA Associates also indicates that the most widely used source for estimating effectiveness of TDM strategies is *Quantifying Greenhouse Gas Mitigation Measures, A Resource for Local Government to Assess Emission Reductions from Greenhouse Gas Mitigation Measures*, published by the California Air Pollution Control Officers Association (CAPCOA) in August, 2010. The CAPCOA Report provides assumptions, limitations, and methodologies for quantifying effectiveness of VMT mitigation measures.

Although TDM strategies are considered among the most effective VMT mitigators, project location, mitigation subcategory (e.g., commute trip reduction; neighborhood/site enhancement, etc.) and global maximum VMT reduction allowed by CAPCOA all limit what can be accomplished in the way of VMT mitigation. Even if all feasible TDM strategies in the CAPCOA Report were implemented by the Project, and the effectiveness of each such strategy were supported with substantial evidence, the maximum allowable reduction in Project VMT would be capped at 15 percent (global maximum for suburban projects), which is half of what is necessary to reduce the impact of Project VMT to a less than significant level.

The Quail Valley Planned Development Plan does include some strategies for VMT reduction, including a robust pedestrian network and bicycle paths. However, as the Ruettgers and Schuler Analysis states, “...the reduction in VMT gained from the improvements will be less than needed to reduce VMT to [a] less than significant [level].”

Off-Site Improvements

Addition of transportation improvements that support alternate modes of transportation in the Project vicinity with the goal of reducing VMT are considered off-site improvements. These types of improvements could include extending or completing segments of bicycle lanes or sidewalk to provide connectivity. The Ruettgers & Schuler Analysis states that substantial evidence would be necessary to support the effectiveness of off-site improvements in reducing Project VMT. The memorandum also states that “the CAPCOA Report focuses on the quantification of project-level rather than off-site mitigation and the SCAG model does not fully capture active transportation trips....”

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Development on the LAFCO-approved non-Quail Valley properties proposed for annexation would require site-specific environmental analysis of potential cumulative impacts pertaining to CEQA-identified Transportation topics for analysis. It can be anticipated that residential development (allowing a maximum of 975 dwelling units on the Falcon Glen property and building out of the existing vacant properties within the Annexation area) would occur in the Annexation areas and, thereby, would result in direct growth of population in those areas to be annexed to the City of Palmdale. As indicated above, this would necessitate the construction of new or expanded infrastructure in the vicinity of the Annexation area, including multiple accesses to the Falcon Glen project site on Avenue S and its connections to the adjacent Anaverde Nuevo Specific Plan area. As a result, additional cumulative impacts to Transportation could result from proposed non-Quail Valley annexation areas.

4.17.8 LEVEL OF SIGNIFICANCE AFTER MITIGATION

The Ruettgers and Schuler Analysis concludes that “...even if all available mitigation measures were implemented, the project will still be expected to result in a significant transportation impact under CEQA for VMT.” Therefore, VMT remains a significant and unavoidable transportation impact.

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4.18 Tribal Cultural Resources

The following analysis is derived from information contained in the following: City of Palmdale General Plan, “Palmdale 2045”; County of Los Angeles General Plan; “Confidential Cultural and Paleontological Assessment Report and Mitigation Plan – Update for the Quail Valley Project, California” prepared by Cogstone Resource Management, Inc.; "Supplemental Cultural Resources Memorandum for the Quail Valley Planned Development Project" by Cogstone (October 5, 2023); and the Quail Valley Planned Development plans.

4.18.1 ENVIRONMENTAL SETTING

The following narrative is a summation of material presented in the Cultural and Paleontological Assessment Report and Mitigation Plan prepared by Cogstone for the Project/Project site. A more detailed narrative of this cultural resources history as it pertains to the Project site and Project vicinity was previously discussed in Section 4.5 Cultural Resources of this EIR.

Prehistoric Setting

The Cultural and Paleontological Assessment Report and Mitigation Plan prepared for the Project site relies on M. Sutton, M. Basgall, J. Gardner and M. Allen, “Advances in Understanding Mojave Desert Prehistory,” in *California Prehistory: Colonization, Culture and Complexity* (edited by T. Jones and K. Klar) to summarize the following prehistory of the Antelope Valley.

Pleistocene

The sole cultural complex dating to the Pleistocene period that has been confidently identified in the Mojave Desert is Clovis (10,000 to 8,000 years B.C.), which is marked by characteristic fluted projectile points of the same name and which appear more commonly in the north and west sectors of the Mojave Desert. These are areas of substantial, external stream runoff that would have been well-watered into the Early Holocene. The nature of Paleo-Indian cultural systems remains poorly defined in that they were most likely a highly mobile people, living in small, temporary camps near then permanent sources of water.

Early Holocene

The sole coherent cultural pattern during the Early Holocene period was the Lake Mojave complex, which dates between 8,000-6,000 years B.C. The Lake Mojave complex is characterized by projectile points of the Great Basin Stemmed series and abundant bifaces, as well as steep-edged unifaces, crescents, occasional cobble-core tools, and ground stone implements. Flaked stone artifacts in Lake Mojave assemblages include tools that are consistent with long-term use and transport. Extra-local materials are common and suggest extensive annual foraging ranges; marine shell beads imply wide spheres of interaction. Small numbers of ground stone implements occur regularly within these components.

Extensive residential accumulations are known to exist in addition to workshops and small camps. The large sites appear to be functionally the same as smaller sites and represent locations of recurrent use rather than different settlement types. Thus, the Lake Mojave pattern appears to reflect a forager-like strategy

organized around relatively small social units.

Middle Holocene

During this time period, multiple culturally and technologically distinct populations inhabited and exploited the Mojave Desert. The primary cultural complex associated with the Middle Holocene thus far is termed “Pinto.” Based on data from a number of sites in the central and northern Mojave Desert, a temporal overlap existed between Lake Mojave and Pinto complexes with Pinto slightly later in time. Nevertheless, the two complexes appear to be distinct, with statistically different obsidian hydration ranges and consistently different site distributions.

The Pinto complex has the most widespread expression of any of the early cultural complexes. There appears to be a broad continuity in the flaked stone technologies of the Lake Mojave and Pinto complexes, both of which are characterized by extensive use of toolstones other than obsidian and cryptocrystalline silica, and by the regular use of bifacial and unifacial core/tool forms. The signature stemmed, indented-base Pinto series projectile points show high levels of blade reworking and the tips appear to have been used for thrusting spears rather than as darts. Reduced toolstone diversity implies a reduction in foraging range, although the continuing presence of marine shell indicates regular interaction with coastal groups.

The most important distinction between the Lake Mojave and Pinto assemblages relates to the prevalence of ground stone implements. Milling tools are moderately abundant in nearly all known Pinto deposits and sometimes occur in high frequency. Revised dating indicates intensive levels of plant processing began by 7,000 years B.C. This coincides with emergence of similar economies along the Pacific Coast.

Sites of the Pinto complex occur in a diverse range of topographic and environmental zones. Larger sites, which appear to correlate with well-watered locations, contain substantial middens and a breadth of cultural debris not present at smaller sites. These data are consistent with residential bases that were occupied for prolonged periods by moderate to large numbers of people. Such groups probably consisted of multiple families, suggesting a collector-like settlement strategy with centralized site complexes situated in favorable locations to stage logistical forays into surrounding resource patches. Judging from high frequencies of milling tools at many of these bases, access to plant resources must have been a key determinant for site placement. Patterns of animal exploitation remain similar to those of the Lake Mojave complex; although a drop in deer frequencies and a slight increase in reliance on small fauna are evident in faunal assemblages dating to this period.

The Deadman Lake complex appears to have been a separate cultural complex within the Middle Holocene. In contrast to the Pinto complex which was widespread, the Deadman Lake complex has thus far been recognized only at Twenty-Nine Palms in the southeastern Mojave Desert. It may represent close cultural connections to the Southwest Archaic that become increasingly weak to the north and west. Deadman Lake assemblages are characterized by small-to-medium-sized, contracting-stemmed or lozenge-shaped points, extensive concentrations of battered cobbles and core tools, abundant bifaces, simple flake tools, and milling implements. Toolstones used demonstrate considerable quantities of nonsilicate materials including igneous rock and obsidian were used. Simple shell beads present take origin from both the Pacific coast and the Sea of Cortez. Processing of plant foods appears to have involved extensive crushing or pulping activities. Animal exploitation is dominated by small animals like those of Pinto complex sites.

Late Holocene

The earliest Late Holocene complex is termed “Gypsum” and dates approximately from 2,000 years B.C.

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to A.D. 200. The Gypsum complex is relatively scarce in the southern and western reaches of the Mojave Desert.

During the early part of the Gypsum complex, it is thought that settlement and subsistence activities were centered near streams. Also, it appears trade and social complexity increased. Gypsum sites are more numerous than those of preceding occupations and are found over a more diverse array of geographic locations. Artifact assemblages include evidence of ritual activities including quartz crystals, paint and rock art, and numerous bifaces. Exploitation of deer, jackrabbits, cottontails and rodents also are evident.

The Rose Springs complex is marked by regional appearance of the bow and arrow, beginning about A.D. 200. Common artifacts include Eastgate and Rose Springs series projectile points, stone knives, drills, pipes, bone awls, various milling implements, marine shell ornaments, and large quantities of obsidian. Most of the obsidian has been sourced to the Coso Volcanic Field, which demonstrates either travel to the southern Owens Valley or trade with people living in that vicinity. Rose Springs sites commonly are found near springs, along washes, and occasionally along lakeshores. Evidence of architecture includes wickiups, pit houses, and other types of structures suggesting intensive occupations. Populations in the Desert appear to have reached their peak during this era.

After about A.D. 1100, environmental conditions continued to deteriorate, populations appear to have declined, new technologies were introduced, and a number of separate cultural complexes emerged that are believed to represent prehistoric aspects of known ethnographic groups. Late Prehistoric occupation sites represent a variety of types that include a few major villages with associated cemeteries, special purpose sites, and seasonal sites. Artifact assemblages consist of Desert series projectile points, buffware and brownware ceramics, shell and steatite beads, slate pendants, incised stones, and a variety of milling tools. Obsidian use decreased while use of cryptocrystalline silica appears to have increased during this period.

Ethnography

The Antelope Valley had two geographical characteristics that influenced Native American life. First, its location was a natural access corridor and principal trade route that linked the California coast with early trails extending south to Mexico, north into California's Central Valley, and east as far as the Southwest culture region. Secondly, the Antelope Valley had an abundance of natural springs and lakes. These two factors combined to result in the flourishing of Native American trade and interaction routes through the Antelope Valley as early as at least 3,000 to 4,000 years ago. As a consequence, a number of sizeable permanent villages persisted over several millennia because Antelope Valley residents could take advantage of both coastal and desert resources and adaptation. The Project site is located near the north end of Soledad Pass, which is a major natural travel and trade corridor between the Mojave Desert and the California coast.

According to the Cultural Resources Report prepared for the Project site, the Project area is situated within the traditional use areas of the Vanyumé/Serrano. The area also is close to the boundary with the Tataviam. Other neighboring groups were the Kitanemuk, Kawaiisu, and Gabrielino. Many other groups, including the Mojave and the Southern Paiute/Chemehuevi, traveled through the Project site vicinity. In addition, closely related clans of the Serrano and Vanyumé (Beñemé; or, Desert Serranos) inhabited the southeastern Antelope Valley, Cajon Pass, upper Mojave River drainages, and the San Bernardino Mountains.

By the early 1800s, after removal of most Takic populations into the Spanish mission system, Numic-speaking Southern Paiute/Chemehuevi groups from interior Desert areas began to move southward along the Mojave River and into the Antelope Valley. The first fully documented Spanish contact in the Project site vicinity occurred in 1776 when a Franciscan priest named Father Francisco Garces traversed through

the Mojave Desert on his way to Monterey. Increasingly the people of Antelope Valley were being “resettled” to the San Fernando Mission. In 1808, a Spanish military expedition was dispatched to the Antelope Valley. By 1811, Mission records indicated “resettlement” of at least two entire villages had been completed.

The slow decline in the Native American population of the Antelope Valley followed that of other native California societies. Disease spread by contact with the Spanish missions and forced labor continued to take a toll on the area Native American population. Few Antelope Valley Indians remained by 1848 when California became a United States territory.

4.18.2 REGULATORY FRAMEWORK

Federal Regulations

American Indian Religious Freedom Act (1978)

The intent of this Act is to protect Native Americans’ First Amendment right to “free exercise” of religion. Under this Act, federal agencies and departments are charged with evaluating their policies and procedures in consultation with native traditional religious leaders to eliminate interference with the free exercise of native religion. Agencies must determine and make appropriate changes necessary to protect and preserve Native American religious cultural rights and practices and to accommodate access to and use of religious sites “to the extent that the use is practicable and not inconsistent with an agency’s essential functions.” No Native American religious sites have been identified on the Project site. Therefore, the provisions of the American Indian Religious Freedom Act do not pertain to the Project.

Native American Graves Protection and Repatriation Act (1990)

This Act describes the rights of Native American lineal descendants, Indian Tribes and Native Hawaiian organizations with respect to treatment, repatriation and disposition of Native American cultural items for which they can show a relationship of lineal descent or cultural affiliation. In addition, the Act requires federal agencies and museums receiving federal funds to inventory holdings of Native American human remains and funerary objects and provide written summaries of other cultural items. Furthermore, the Act provides for greater protection of Native American burial sites and more careful control over removal of Native American human remains, funerary objects, sacred objects and items of cultural patrimony on federal and tribal lands.

State Regulations

Senate Bill 18 (Traditional Tribal Cultural Places Act)

Senate Bill 18 (SB 18) requires local governments to consult with California Native American tribes to aid in protection of traditional tribal cultural places (“cultural places”) through local land use planning. SB 18 also requires the Governor’s Office of Planning and Research (OPR) to include in the General Plan Guidelines advice to local governments for how to conduct these consultations.

The intent of SB 18 is to provide California Native American tribes an opportunity to participate in local land use decisions at an early planning stage for the purpose of protecting or mitigating impacts to cultural places. Involving tribes at the early planning stages would allow consideration of cultural places in the

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context of broad local land use policy before individual site-specific project-level land use decisions are made by a local government.

SB 18 requires local governments to consult with tribes prior to making certain planning decisions and to provide notice to tribes at certain key points in the planning process. These consultations and notice requirements apply to adoption and amendment of general plans. The Project does not require a General Plan Amendment or a Zone Change and therefore is not subject to SB 18 review and noticing requirements.

Assembly Bill 52

The California State legislature, in Assembly Bill 52 (AB 52) added new requirements for development projects that pertain to tribal cultural resources. By including tribal cultural resources early in the CEQA process, the legislature intended to ensure local and Tribal governments, public agencies, and project proponents would have information available early in the planning process to identify and address potential adverse impacts to tribal cultural resources. The legislature also intended to reduce the potential for delay and conflicts in the environmental review process.

The California Public Resources Code establishes that, "...[a] project with an effect that may cause a substantial adverse change in the significance of a tribal cultural resource is a project that may have a significant effect on the environment." (Public Resources Code, Section 21084.2). To determine whether a project may have such an effect, the Public Resources Code requires a lead agency to consult with any California Native American tribe that requests consultation and is traditionally and culturally affiliated with the geographic area of a proposed project. The consultation must take place prior to the determination of whether a negative declaration, mitigated negative declaration, or environmental impact report is required for a project (Public Resources Code, Section 21080.3.1).

If a lead agency determines a project may cause a substantial adverse change to tribal cultural resources, the lead agency must consider measures to mitigate that impact. Public Resources Code, Section 21084.3(b)(2) provides examples of mitigation measures that lead agencies may consider to avoid or minimize impacts to tribal cultural resources. These rules apply to projects that have a notice of preparation for an environmental impact report or negative declaration or mitigated negative declaration filed on or after July 1, 2015. The Project is subject to AB 52 noticing requirements and required Tribal Consultation has been completed.

CEQA Statute Section 21074 states as follows.

- (a) "Tribal cultural resources" are either of the following:
 - (1) Sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American tribe that are either of the following:
 - (A) Included or determined to be eligible for inclusion in the California Register of Historical Resources.
 - (B) Included in a local register of historical resources as defined in subdivision (k) of Section 5020.1.
 - (2) 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 Section 5024.1. In applying the criteria set forth in subdivision (c) of Section 5024.1 for the purposes of this paragraph, the lead agency shall consider the significance of the resource to a California Native American tribe.

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- (b) A cultural landscape that meets the criteria of subdivision (a) is a tribal cultural resource to the extent that the landscape is geographically defined in terms of the size and scope of the landscape.
- (c) A historical resource described in Section 21084.1, a unique archaeological resource as defined in subdivision (g) of Section 21083.2, or a ‘nonunique archaeological resource’ as defined in subdivision (h) of Section 21083.2 may also be a tribal cultural resource if it conforms with the criteria of subdivision (a).

California Health and Safety Code Section 7050.5(b)

California Health and Safety Code Section 7050.5(b) requires that excavation and disturbance activities must cease “in the event of discovery or recognition of any human remains in any location other than a dedicated cemetery...” until the coroner can determine regarding the circumstances, manner, and cause of any death. The coroner is then required to make recommendations concerning the treatment and disposition of the human remains. This Section also makes it a misdemeanor to intentionally disturb, mutilate or remove interred human remains. Section 7051 specifies that removal of human remains from “internment or a place of storage while awaiting internment” with the intent to sell them or to dissect them with “malice or wantonness” is a public offense punishable by imprisonment in a State prison. Furthermore, Sections 8010-8011 establish the California Native American Graves Protection and Repatriation Act consistent with the federal law addressing the same. The Act stresses that “all California Indian human remains and cultural items are to be treated with dignity and respect.” It encourages voluntary disclosure and return of remains and cultural items by publicly funded agencies and museums in California. It further outlines the need for aiding California Indian tribes, including non-federally recognized tribes, in filling repatriation claims.

California Code of Regulations Section 15064.5

The California Code of Regulations, Title 4, Chapter 3, Section 15064.5 (the State CEQA Guidelines) establishes the procedure for determining the significance of impacts to archaeological and historical resources, as well as classifying type of resource. Cultural resources are aspects of the environment that require identification and assessment for potential significance. The evaluation of cultural resources under CEQA is based upon the definitions of resources provided in CEQA Guidelines Section 15064.5, as follows.

- A resource listed in, or determined to be eligible by the State Historical Resources Commission, for listing in the California Register of Historical Resources (Public Resources Code Section 5024.1, Title 14 CCR, Section 4850 et seq.).
- A resource included in a local register of historical resources, as defined in Section 5020.1(k) of the Public Resources Code or identified as significant in an historical resource survey meeting the requirements Section 5024.1(g) of the Public Resources Code, shall be presumed to be historically or culturally significant. Public agencies must treat any such resource as significant unless the preponderance of evidence demonstrates that it is not historically or culturally significant.
- Any object, building, structure, site, area, place, record, or manuscript which a lead agency determines to be historically significant or significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California may be considered to be a historical resource, provided the lead agency’s determination is supported by substantial evidence in light of the whole record. Generally, a resource shall be considered by the lead agency to be “historically significant” if the resource meets the criteria for listing on the California Register of Historical Resources (Public Resources Code Section 5024.1, Title 14 CCR, Section 4852) including the following:

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- Is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage;
 - Is associated with the lives of persons important in our past;
 - Embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values; or,
 - Has yielded, or may be likely to yield, information important in prehistory or history.
- The fact that a resource is not listed in, or determined to be eligible for listing in the California Register of Historical Resources, not included in a local register of historical resources (pursuant to section 5020.1(k) of the Public Resources Code), or identified in an historical resources survey (meeting the criteria in section 5024.1(g) of the Public Resources Code) does not preclude a lead agency from determining that the resource may be an historical resource as defined in Public Resources Code sections 5020.1(j) or 5024.1.

Regulation of Cultural Resources Pursuant to the Public Resources Code, Section 5097

This Section (5097) of the California Public Resources Code provides for the following:

- Outlines requirements for cultural resource analysis prior to commencement of any construction on State lands;
- Specifies that unauthorized disturbance or removal of archaeological, historical or paleontological resources located on public lands is a misdemeanor;
- Prohibits the knowing destruction of objects of antiquity without a permit on public lands and provides for criminal sanctions for violators;
- Requires consultation with the California Native Heritage Commission when Native American graves are found; and,
- Establishes that violations for taking or possessing remains or artifacts are felonies.

Other Sections (5097.9 through 5097.91) establish that no public agency or private party using or occupying public property shall interfere with free expression or exercise of Native American religion as provided in the United States Constitution and the California State Constitution. In addition, these Sections prohibit public agencies and private parties using or occupying public property from causing severe or irreparable damage to any Native American sanctified cemetery, place or worship, religious or ceremonial site or sacred shrine located on public property, except on a clear and convincing demonstration that the public interest and necessity require such.

Section 5097 further establishes the Native American Heritage Commission, which is tasked with working to ensure preservation and protection of Native American human remains, associated grave goods and cultural resources. The Public Resources Code authorizes the Native American Heritage Commission to initiate legal action when necessary to prevent damage to Native American burial grounds or places of worship and establishes more specific procedures to be implemented in the event that Native American remains are discovered.

California Public Resources Code Related to Paleontological Resources

Section 5097.5 of the California Public Resources Code prohibits “knowing and willful” excavation removal, destruction, injury and defacement of any paleontological feature on public lands except where the agency with jurisdiction has granted express permission.

Section 30244 requires reasonable mitigation for impacts on paleontological resources that occur as a result

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of development on public lands.

California Government Codes Addressing Native American Heritage

California Government Code Section 6254(r) exempts from disclosure public records of Native American graves, cemeteries and sacred places maintained by the Native American Heritage Commission. Furthermore, California Government Code Section 65351 specifics how local planning agencies should provide opportunities for involvement of California Native American tribes to consult on preparation or amendment of general plans. Section 65352 requires local planning agencies to refer proposed actions of general plan adoption or amendment to California Native American tribes on the Native American Heritage Commission contact list with a 45-day opportunity for comments. Other California Government Code Sections allow city and county legislative bodies to acquire property for preservation or development of a historical landmark and allow local legislative bodies to enact ordinances to provide special conditions or regulations for protection or enhancement of places or objects of special historical or aesthetic interest or values.

California Senate Bill 18 (Traditional Tribal Cultural Places Act – 2004)

California State law provides for limited protection of Native American prehistoric, archaeological, cultural, spiritual and ceremonial places, such as the following: sanctified cemeteries, religious ceremonial sites, shrines, burial grounds, prehistoric ruins, archaeological sites, and sacred sites.

California Senate Bill 18 (2005) placed new requirements on local governments for developments in or near a Traditional Tribal Cultural Place (TTCP). Local jurisdictions must provide opportunities for involvement of California Native American tribes in the land planning process to preserve traditional tribal cultural places. The Final Tribal Guidelines recommends the Native American Heritage Commission provide written information within 30 days to inform the Lead Agency if a proposed project is determined to be near a TTCP and another 90 days for tribes to respond to a local government if the tribes want to consult to determine whether the project would have an adverse impact on the TTCP. If the Native American Heritage Commission, the tribe(s) and interested parties agree upon mitigation measures necessary for the proposed project, the mitigation measures would be included in the project EIR. If the City and tribe agree adequate mitigation or preservation measures cannot be implemented, neither party is obligated to take action.

SB 18 also amended California Civil Code Section 815.3 to add California Native American tribes to the list of entities that can acquire and hold conservation easements to protect their cultural places.

Local Regulations

City of Palmdale General Plan (Palmdale 2045)

A General Plan Consistency Assessment of Palmdale 2045 Goals and Policies, relevant to the Quail Valley Project Tribal Cultural Resources analysis is contained in Appendix A of this EIR. Following are Envision Palmdale 2045 Goals and Policies relevant to the Quail Valley Project.

Conservation Element

Goal CON-8: Protect Historical and Culturally Significant Resources, which Contribute to the Community's Sense of History.

- Policy CON-8.4:** **Preservation in New Development.** Require that new development preserve significant historic, paleontological, or archaeological resources.
- Policy CON-8.5:** **Tribal Consultation.** Conduct Native American consultation consistent with the applicable regulations when new development is proposed in potentially culturally sensitive areas.
- Policy CON-8.6:** **Discovery Coordination with Tribal Groups.** When human remains suspected to be of Native American origin are discovered, coordinate with the Native American Heritage Commission and any local Native American groups to determine the most appropriate course of action.
- Goal CON-9:** **Promote Community Design that Reflects Palmdale’s History and Preserves Palmdale’s Cultural Resources.**

Sustainability, Climate Action, and Resilience Element

- Policy SCR-9.2:** **Acknowledge Indigenous History.** Acknowledge and celebrate the indigenous history and tradition of the area now known as Palmdale.

4.18.3 *THRESHOLDS FOR DETERMINING SIGNIFICANCE*

According to Appendix G of the CEQA Guidelines, a project will normally have a significant adverse environmental impact on tribal cultural resources if it would 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:

- Threshold TCR-1** 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); or
- Threshold TCR-2** 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 resource to a California Native American tribe.

4.18.4 *ENVIRONMENTAL IMPACT*

Impact Analysis

- Threshold TCR -1** 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 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)?

Less Than Significant Impact with Mitigation Incorporated.

The Cultural and Paleontological Assessment conducted for the Project site by Cogstone indicated that an update search for archaeological and historic records was completed at the South-Central Coastal Information Center on January 17, 2017 to supplement the original 2004 survey of the Project development impact area. The Project site and a one-mile radius were searched for cultural resources. One prehistoric site had been previously recorded, Tribal Cultural Resource site CA-LAN-3343. In addition, a historic but active electrical transmission line extends across an open space portion of the Project. Additional resources within one mile include four prehistoric sites, five prehistoric isolates, two multicomponent sites, one historic structure, eight historical archaeological sites, and one historical archaeology isolate. There is a total of 62 cultural studies within one mile.

It was found that there are two records within one-quarter mile, four records between one-quarter and one-half mile from the Project site, and 15 records between one-half mile and one mile (in addition to those records within the Project site). By type, there are five prehistoric sites, five prehistoric isolates, two multicomponent sites, two historic structures, eight historical archaeological sites, and one historical archaeology isolate. Cultural studies within one mile total 62.

The 2004 survey located and recorded one previously undocumented prehistoric archaeological site that is a Tribal Cultural Resource and a sacred place consisting of 38 defined cupules and a meandering groove on several sides of a rock outcrop. The rock art components are unusual in that finely pecked petroglyphs and cupules are directly associated. Pecked petroglyphs are very scarce in the western Mojave Desert and surrounding mountains. Cupules are human manufactured circular depressions that are carved, pecked, or ground into horizontal, vertical or angled rock surfaces to create a pattern of pits and are associated with prehistoric socio-religious activities. The cupules in the Project site belong to the “Far Western Pit and Groove Tradition” that is widespread throughout California, the Great Basin, and the Columbia Plateau. Cupules usually are relatively shallow in relation to their diameters, vary in size from a few centimeters to more than 15 centimeters in size, range in number on any given boulder from a few to dozens, and are sometimes associated with linear grooves or other rock art.

In addition, a re-visit conducted in 2017 and documented in the updated Cogstone study revealed one, and possibly two, pecked snakes not observed previously in the same location. Pecked petroglyphs, which are very scarce in the western Mojave Desert and surrounding mountains.

An update to the 2017 re-visit was undertaken as described in the October 5, 2023 Cogstone supplemental memorandum. As part of the update, a supplemental cultural records search was requested from the South-Central Coastal Information Center on August 21, 2023. The search did not identify any new cultural resource studies or newly recorded archaeological resources in the Project Area subsequent to 2017. One historic built environment linear resource, P-19-192581, was identified that was not included in the 2017 Assessment (Gust and Knight). This resource was previously evaluated for eligibility by Tinsley Becker and recommended not eligible for listing in the NRHP and CRHR. This recommendation of ineligibility was reaffirmed in all subsequent site revisits and reevaluations. As it is not eligible for listing, this resource requires no further consideration.

Tribal Consultation

The City of Palmdale staff conducted Assembly Bill 52-required consultation with Native American Heritage Commission identified tribes. After receiving several responses from tribal groups who wanted to act as Native American Monitors during Project development, the City indicated that the San Manuel Band of Mission Indians would serve as Native American Monitors for the Project.

The Project development area will not extend into this resource. However, implementation of Mitigation Measures **MM-TCR-1** through **MM-TCR7** and **MM-CUL-1** through **MM-CUL-1 through MM-CUL-8** will ensure any potential impact resulting from Project development will be reduced to a less than significant level.

Threshold TCR -2 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 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 resource to a California Native American tribe.

Less Than Significant Impact with Mitigation Incorporated.

The Project site is considered sensitive for buried cultural resources because numerous prehistoric archaeological sites have been identified in the vicinity of the Project site and because of the past presence of several Native American tribal groups in the Project site vicinity. If human bones are discovered during Project development, the Los Angeles County Coroner must be notified in accordance with California Health and Safety Code Section 7050.5. The Coroner will then if the remains are subject to his/her authority. If the Coroner recognizes the remains to be Native American, he/she/they shall contact the Native American Heritage Commission by phone within 24 hours, in accordance with Public Resources Code Section 5097.98. The Native American Heritage Commission will then designate a Most Likely Descendant with respect to the human remains. The Most Likely Descendant has the opportunity to recommend to the property owner or the person responsible for excavation work means for treating or disposing, with appropriate dignity, the human remains and associated grave goods. Work may not resume in the vicinity of the find until all requirements of the Health and Safety Code have been satisfied.

To ensure any impacts to tribal cultural resources would be lessened and remain less than significant, recommendations from the Cultural and Paleontological Assessment Report are formulated as Mitigation Measures **MM-CUL-3** through **MM-CUL-8** in Section 4.5 (Cultural Resources) of this document. The Mitigation Measures meet CEQA and City of Palmdale requirements and, according to the Cultural Resources Assessment prepared for the Project, "... have been used throughout Southern California successfully in protecting resources while allowing timely completion of construction. The project-specific measures have been carefully considered and serve to protect known resources to professional hazards."

Development on the LAFCO-approved non-Quail Valley properties proposed for annexation would require site-specific environmental analysis of potential impacts pertaining to CEQA-identified Tribal Cultural Resources topics for analysis. The non-Quail Valley areas within the overall annexation boundary include

vacant lots, lots with existing housing, and the proposed Falcon Glen project area. As a result, additional cumulative impacts to Tribal Cultural Resources could result from proposed non-Quail Valley annexation areas.

4.18.5 CUMULATIVE IMPACTS

Tribal Cultural Resources

At least six cupule sites, in addition to the cupule site on the Project site, are known in the Sierra Pelona foothills. There are two other cupule component sites near the Project site. CA-LAN-1767 and CA-LAN-1768 are located more than a mile west of the Project site at the northern foot of the Sierra Pelona Mountains. Project development would not impact any known prehistoric archaeological resources on the Project site. In addition, the potential of Project development uncovering previously unknown prehistoric archaeological resources is low. These potential impacts would be specific to the Project site. Future development that would uncover tribal cultural resources would be required to comply with all applicable State, Federal and City of Palmdale regulations governing preservation, salvage and handling of the discovered resources. Therefore, Project development and operation would not contribute to a significant cumulative impact to prehistoric archaeological sites and/or resources.

Tribal Human Remains

Required compliance with California Health and Safety Code Section 7050.5 as well as Public Resources Code Section 5097 *et. seq.* would assure all future development projects within the Project vicinity treat tribal human remains that may be uncovered during Project grading or construction in accordance with prescribed, respectful and appropriate practices and thereby avoid cumulative impacts.

Development on the LAFCO-approved non-Quail Valley properties proposed for annexation would require site-specific environmental analysis of potential cumulative impacts pertaining to CEQA-identified Tribal Cultural Resources topics for analysis.

4.18.6 LEVEL OF SIGNIFICANCE BEFORE MITIGATION

Project development and operational impacts to historical and archaeological resources would remain less than significant. However, there may be a possibility of discovery of paleontological resources or human remains associated with Native American settlement beneath the surface that were not discovered during original grading activity. Project development could result in discovery of paleontological resources or human remains not discovered during grading activities. Therefore, potential project development impacts to tribal cultural resources or human remains discovery prior to Mitigation could be potentially significant when evaluated according to CEQA Thresholds of Significance.

4.18.7 MITIGATION MEASURES

The following mitigation measures are recommended to avoid, minimize, or reduce potentially significant impacts to tribal cultural resources. **Mitigation Measures MM-CUL-3 through MM-CUL-8** contained in

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the Cultural Resources Section (Section 4.5) of this EIR are included below for additional reference.

- MM-TCR-1** A qualified principal investigator for archaeology and paleontology will be retained to provide professional services. The principal investigator will be responsible to implement the Mitigation Plan and to maintain professional standards of work. Development of a Treatment Plan is recommended to avoid Project construction delays.
- MM-TCR-2** The principal investigator and designated Native American representative will present background information to all attendees at the pre-grade meeting. Any new excavation personnel hired after this date will be presented the background information by the archaeological and Native American monitors.
- MM-TCR-3** The rock art site will be preserved in place. During construction, it shall be fenced off with snow fencing placed 50 feet from the boulder complex and be a designated Environmentally Sensitive Area. After construction it may be necessary to obscure the view of the boulder with native plants.
- MM-TCR-4** Under the direction of the principal investigator, qualified archaeological monitors will perform full-time monitoring of brush clearing, surface scraping, construction grading, and excavation in native sediments. Native American monitors shall work alongside the archaeological monitors. One archaeological monitor and one Native American, will be assigned to each disparate grubbing/vegetation removal area. During periods of large area grubbing or cut-fill operations where excavations are spread out and not centrally observable by one team, this may require up to one team per equipment operator. The monitoring team will not circulate between disparate operating equipment while they are actively engaged in ground-disturbing activity. In areas undergoing repetitive removals in concentrated areas (such as with repetitive “scraper” passes in a concentrated area during over-excavation removals), the number of teams required will be established by the principal investigator to insure adequate observation during excavation activities. Should excavation proceed to depths where Pleistocene sediments occur, a qualified paleontologist should monitor those portions of the Project. Monitoring will include inspection of exposed surfaces and microscopic examination of matrix. The monitor will have authority to divert grading away from exposed resources temporarily in order to recover the specimens. Cooperation and assistance from on-site personnel will greatly assist timely resumption of work in the area of the discovery.
- MM-TCR-5** If the discovery meets the criteria for (1) human bone, (2) an archaeological site or (3) a fossil locality, then work will be diverted and a localized, temporary ESA will be established with a radius of 100 feet. The Cultural Resources Field Supervisor or principal investigator will evaluate the discovery. Notifications of discoveries will be sent within 24 hours to the client, consulting tribes and the City of Palmdale. Sites and localities require documentation including location and stratigraphic information. Decisions about testing and data recovery will be made in consultation with the client, consulting Tribes and the City of Palmdale. Digital copies of all documents and records regarding cultural discoveries shall be

provided to the Tribes. Work may continue outside a 100-foot perimeter of the discovery.

- MM-TCR-6** Materials meeting significance criteria under CEQA will be prepared, identified, and cataloged using tags. No cultural materials will be altered (such as having numbers placed on them) pending decisions on the fate of the collection. The City of Palmdale and the Project proponent will consult with the Tribes regarding disposition of the collection. This may include reburial or donation to the accredited repository. The Project proponent is responsible for any curation fees.
- MM-TCR-7** The principal investigator will prepare monthly progress reports to be filed with the client, the City of Palmdale and any tribes who request continuing consultation. The principal investigator will prepare a final digital report to be filed with the client, the City of Palmdale, the Tribes and the California Historic Resources Information System. The report will include a list of resources recovered, documentation of each site/locality, interpretation of resources recovered and will include all specialists' reports as appendices. The Project proponent is responsible for costs of the Mitigation Program.
- MM-CUL-3** The rock art site shall be preserved in place. During Project development it shall be fenced off with snow fencing placed 50 feet from the boulder complex and be considered a designated Environmentally Sensitive Area.
- MM-CUL-4** Under the direction of the Principal Investigator, qualified archaeological monitors shall perform full-time monitoring of brush clearing, surface scraping, construction grading, and excavation in native sediments. Native American monitors shall work alongside the archaeologist monitors. One archaeological monitor and one Native American shall be assigned to each disparate grubbing/vegetation removal area. During periods of large area grubbing or cut-fill operations where excavations are spread out and not centrally observable by one team, this may require up to one team per operator. The monitoring team shall not circulate between disparate operating equipment while they are actively engaged in ground-disturbing activity. In areas undergoing repetitive removals in concentrated areas (such as with repetitive "scraper" passes in a concentrated area during over-excavation removals), the number of teams required shall be established by the Principal Investigator to ensure adequate observation during excavation activities. Should excavation proceed to depths where Pleistocene sediments occur, a qualified paleontologist should monitor those portions of the Project. Monitoring will include inspection of exposed surfaces and microscopic examination of matrix. The monitor will have authority to divert grading away from exposed resources temporarily to recover the specimens. Cooperation and assistance from on-site personnel will greatly assist timely resumption of work in the area of the discovery.
- MM-CUL-5** If the discovery meets the criteria for (1) human bone, (2) an archaeological site or (3) a fossil locality, then work shall be diverted and a localized, temporary ESA will be established with a radius of 100 feet. The Cultural Resources Field Supervisor or Principal Investigator will evaluate the discovery. Notifications of discoveries will be sent within 24 hours to the client, consulting tribes and the City.

Sites and localities require documentation including location and stratigraphic information. Decisions about testing and data recovery will be made in consultation with the client, consulting Tribes and the City. Digital copies of all documents and records regarding cultural discoveries shall be provided to the Tribes. Work may continue outside a 100-foot perimeter of the discovery.

MM-CUL-6

If microfossil localities are discovered, the monitor will collect matrix for processing. In order to limit downtime, the monitor may request heavy machinery assistance to move large quantities of matrix out of the path of construction to designated stockpile areas.

MM-CUL-7

Materials meeting significance criteria under CEQA shall be prepared, identified, and cataloged using tags. No cultural materials will be altered (such as having numbers placed on them) pending decisions on the fate of the collection. The City will consult with the Tribes regarding disposition of the collection. This may include reburial or donation to the accredited repository. The Project proponent is responsible for any initial curation fees.

MM-CUL-8

The principal investigator shall prepare monthly progress reports to be filed with the client, the City and any tribes who request continuing consultation. The Principal Investigator shall prepare a final digital report to be filed with the client, the City, the Tribes, and the California Historic Resources Information System. The report shall include a list of resources recovered, documentation of each site/locality, interpretation of resources recovered and shall include all specialists' reports as appendices. The Project proponent is responsible for any initial curation fees.

4.18.8 *LEVEL OF SIGNIFICANCE AFTER MITIGATION*

Implementation of the Mitigation Measures described above would reduce any potential Project development and operational impacts to Tribal Cultural Resources to a less than significant level.

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4.19 Utilities and Service Systems

The discussion in this section is derived from information contained in the following: City of Palmdale General Plan, “Palmdale 2045”; Palmdale 2045 EIR; Los Angeles County General Plan; Cannon, “Quail Valley Sewer Area Study – Tentative Tract 65813,” (Revised October 18, 2016); Palmdale Water District, “Required Water Supply Assessment (WSA) (December 12, 2019); Cannon, “SB610 Water Supply Assessment – Quail Valley Tentative Tract 65813” (December 4, 2019); Palmdale Water District, “Water Supply Assessment – Quail Valley Development Project,” Letter December 18, 2019 Palmdale Water District, “Water Supply Assessment,” Letter dated May 3, 2022; Palmdale Water District, “Water Supply Assessment,” Letter dated October 17, 2023; Cannon, “Quail Valley Sewer area Study, Tentative Tract 65813,” (Revised, December 4, 2023); and, the Quail Valley Planned Development Project Plans.

4.19.1 ENVIRONMENTAL SETTING

The approximately 878.1-acre Project site is vacant. The Project site is located on Avenue S and the California Aqueduct, approximately one mile west of the Antelope Valley Freeway (State Route 14 [SR-14]). The proposed Project includes annexation of the entire Project site, together with various adjacent parcels, consistent with the City Sphere of Influence/planning area boundary. The Project site is not contiguous with the City corporate boundary, although Avenue S is owned by the City and is directly adjacent to the Project site. **Exhibit 2-3 (Annexation Boundary)** depicts the properties for annexation. The proposed annexation boundary currently includes 211 assessor parcels, (53 parcels within the property and 158 additional parcels within unincorporated Los Angeles County), totaling approximately 1,310 acres. There are existing residences within the proposed annexation area northwesterly of the Avenue S and 7th Street West intersection and within the adjacent Tovey Avenue neighborhood. The balance of the annexation area is vacant of development. Annexation of the 211 parcels would provide continuity of the City area/boundary and avoid creation of an “island” of unincorporated Los Angeles County territory.

Electricity

The Public Utilities Commission (PUC) regulates energy sources, power plant sites, line locations and charges, and assures that developments are not denied electric power services. Electricity service infrastructure generally is provided concurrently with development. Southern California Edison (SCE) provides electricity to a 50,000 square mile region that includes the City of Palmdale and surrounding areas. In 2020, SCE generated approximately 83,533 gigawatts of electricity (California Energy Commission 2020). As of 2019, approximately 35 percent of SCE's power mix was sourced from approximately renewable resources, including solar, wind, eligible hydroelectric, and geothermal. Approximately 32 percent of SCE' power mix was purchased through open market transactions; the remainder was sourced from natural gas, large hydroelectric, and nuclear resources (SCE 2019; Palmdale 2045). Palmdale is served by SCE from its Vincent Substation. Major transmission lines traverse a portion of the Project site.

SCE provided two comment letters to the Notice of Preparation related to potential interference with SCE easements and facilities. SCE subsequently provided a letter dated January 29, 2020, stating the tentative map is conditionally acceptable. The comments and the 2020 letter are included in the Appendix to this document.

Natural Gas

The Public Utilities Commission regulates maintenance and operation of gas distribution facilities with standards for public safety and fair practices. The Southern California Gas Company provides natural gas to most areas in Southern California, including the Antelope Valley. The City of Palmdale is within the boundaries of the Foothill distribution division and the North Basin transmission division. SoCal Gas produced approximately 5,231 million therms of natural gas (California Energy Commission 2020b). Basins in New Mexico and Texas are sources for most of the natural gas transmitted by SoCal Gas (SoCal Gas 2022; Palmdale 2045).

Water Service

The City of Palmdale is part of the Palmdale Water District (PWD), which services approximately 187 square miles in northeastern Los Angeles County. The Palmdale Water District (PWD) provides water service to the portion of the Project site that is located generally northerly of the central QV HOA Recreation Center although the balance of the Project site is neither within the PWD nor the Los Angeles County Waterworks sphere of influence, as indicated in **Exhibit 4.19-1 (Utilities Palmdale Water District Boundary)** below.

Water supplies within Los Angeles County are provided by a complex network of water districts, water wholesalers and private companies that specialize in developing and improving water service. The PWD is one such district and provides water service to the Project site. The Water District is entitled to 21,300-acre feet (5.6 billion gallons annually from the California Aqueduct (State Water Project). The water is treated at the Palmdale Water District's water treatment plant for distribution to the public. A second source of surface water is supplied by the Littlerock Dam Reservoir. The Littlerock Dam was originally constructed in 1922 and recently renovated to increase its storage capacity to 3,500-acre feet (1.1 billion gallons). The Reservoir is fed by local rainfall and by natural runoff from snow packs in local mountains. The water then is transferred from Littlerock Reservoir to Palmdale Lake and subsequently is treated at the PWD water treatment plant for distribution. A third source of water for PWD customers is through District water wells that pump ground water. Well water comprises approximately 40 percent of the District annual production. In drought conditions (such as currently experienced), well water production may increase up to 50-60 percent to offset the lack of available surface water. The Quail Valley Development Plan (Exhibit 6-1, Public Services) further indicates the northernmost portion of the Project site (from slightly northerly of the central community recreation facility) currently is located within the Palmdale Water District. The remaining portion of the Project site is neither within the spheres of influence of the PWD nor the Los Angeles County Waterworks. However, the more southerly portion of the Project is located within the Antelope Valley East Kern Water District's State Water Supply Contract Service Area (see **Exhibit 4.19-1**). Los Angeles County Waterworks has declined interest in serving the Project. PWD facilities are immediately adjacent to the Project portion not already within their District. Based on the Project design 304 residential lots are within PWD's boundary and 406 lots are within Antelope Valley East Kern's Wholesale Water District. PWD and Antelope Valley East Kern Water District are coordinating to support establishment of an imported water supply exchange agreement to provide retail water service by PWD to the Project portion located in Antelope Valley East Kern Water District's boundary. The agreement will be subject to Local Agency Formation Commission (LAFCO) approval.

Since Project development will include more than 500 dwelling units, it is required under State law to provide a SB 610 Water Supply Assessment to the City of Palmdale. The water requirements of the entire Project were analyzed by Canon Corp. in concert with input and review by PWD. PWD subsequently approved the Water Supply Assessment and provided SB 610 confirmation to the City of Palmdale. On

December 18, 2019, the Palmdale Water District approved the Applicant-supplied Water Supply Assessment for Quail Valley. The Approval stated that “the total water supplies available to Palmdale Water district during normal, single-dry, and multiple-dry years with a 20-year projection will meet the projected water demand of the project in addition to the demand of existing and other planned future uses, including, but not limited to, agricultural and manufacturing uses.” The Water Supply Assessment approval also indicates that a portion of the required water supply will be provided by projected water supplies. Furthermore, the approval states that the Water Supply Assessment “... is also conditioned upon the Project developer entering into an agreement with Palmdale Water District relating to, among other things, the design and construction of water system improvements necessary to provide water service to the Project, the payment of all required fees and charges of the District and other governmental entities with jurisdiction over the Project, obtaining all required permits and approvals for the Project, resolution of the annexation issues and/or tax sharing and other issues arising from the exchange of State Water Project service areas, and the developer’s compliance with all applicable laws applicable to the Project, including the rules and regulations of Palmdale Water District.” Subsequently, the Palmdale Water District extended the Water Supply Assessment as valid until December 22, 2023 and, on October 17, 2023, extended the Water Supply Assessment until December 20, 2024. This second extension was granted in recognition that the City adopted its new General Plan (Palmdale 2045) in 2023 and adopted a new Joshua Tree protection effective July 1, 2023. The Water Supply Assessment documents the sources of water supply, quantifies water demands, evaluates drought impacts (including the current one), and provides a comparison of water supply and demand that is the basis for an assessment of water supply sufficiency. As a result, the PWD has determined that the District has sufficient water available to service the Project demand. The Water Supply Assessment prepared for the Project indicates that “...it is anticipated that existing supplies in combination with identified future and potential water supply opportunities will enable PWD to meet all future water demands which includes the Quail Valley development.” Therefore, the resultant impact of Project development and operation on existing water resources is less than significant.

Residential development in areas proposed for annexation to the City of Palmdale that are not within the Quail Valley Project site would increase demand for additional water service. Site-specific analyses for non-Quail Valley annexation properties and related projects would need to be conducted to determine levels of impacts and appropriate mitigation (if required), such as Development Impact Fees or construction of new water facilities and/or expansion of existing water facilities that would provide services for the non-Quail Valley Annexation area. The County of Los Angeles Department of Public Works indicates that the Falcon Glen project site (located within the non-Quail Valley annexation area) is located entirely within the boundaries of the Los Angeles County Waterworks District No. 40 – Antelope Valley. As the Falcon Glen project is undergoing a separate approval process, the associated water supply impacts of that project would be addressed as part of that project review. The Falcon Glen property area is currently vacant land.

Sewer Service

Sanitary sewer is available northwest of the Project site at the end of Tangerine Street at the easterly edge of the Anaverde/City Ranch residential development. Project development will include a point of connection to the existing off-site sewer at Avenue S and the Project entry road (“A” Street), as indicated on **Exhibit 4.19-2** below. On-site sewage will be routed so that it is conveyed northerly at the primary entrance through a gravity sewer line across Avenue S at “A” Street, through the 15-inch sewer proposed in the property located directly north of Quail Valley (Tentative Tract Map 54328) to the existing sewer at the boundary of Tract 53888 in Tangerine Street., through the existing City of Palmdale sewer (PC 03-06) in the Anaverde/City Ranch Development, and connecting to the 18-inch Elizabeth Lake Road Extension Trunk Sewer (20-P-38) at the intersection of The Groves and Parkwood Avenue.

A detailed sewer service analysis performed for the Project consistent with the requirements of Los Angeles County Department of Public Works, and Los Angeles County Sanitation District (LACSD) No. 20, has demonstrated that the existing and proposed City of Palmdale sewers are adequately sized to convey the peak sewage flow from the Project site to the existing Elizabeth Lake Road Extension Sewer. An annexation to the Sanitation District will be required, as well as a potential amendment to the District Sphere of Influence. In the event that the proposed sewer line in Tract 54328 is not constructed prior to the need for sanitary sewer connections in the subject development, a recorded easement agreement between Quail Valley and the owner of the adjacent property provides an easement and construction rights to allow for an adequate sewer line to be constructed across the adjacent property.

The 51 one-acre rural equestrian lots located in the northeast corner of the Project (Planning Area 2) are lower in elevation than the gravity sewer line, and will therefore be served by individual septic systems (consistent with the adjacent existing development). The 3 five-acre lots (Planning Area 10) are located on the easterly side of a ridge and are located topographically outside of the Project gravity sewer line (consistent with the adjacent existing development). Both Planning Areas are likely to be built as custom, or semi-custom homes. In addition to City requirements, the five-acre lots in the southeast area of the Project, Planning Area 10, (Lots 784, 785, 786 as shown on Tentative Tact Map 65813), are subject to the County of Los Angeles Department of Health for Conventional Onsite Waste Treatment Systems Requirements and Procedures (OWTS). In addition to City requirements, the one-acre lots included in Planning Area 2 (Lots 54-104, as shown on Tentative Tract Map 65813), are subject to the County of Los Angeles Department of Health for Non-Conventional Onsite Waste Treatment Systems Requirements and Procedures (NOWTS). The County review and approval process will be completed prior to issuance of building permits for any homes on the lots wherein on-site waste treatment is anticipated.

Residential development in areas proposed for annexation to the City of Palmdale that are not within the Quail Valley Project site would increase demand for additional sewer service. Site-specific analyses for non-Quail Valley annexation properties and related projects would need to be conducted to determine levels of impacts and appropriate mitigation (if required), such as Development Impact Fees or construction of new sewer facilities and/or expansion of existing sewer facilities that would provide services for the non-Quail Valley Annexation area.

Section 4.19

Environmental Impacts – Utilities and Service Systems

EXHIBIT 4.19-1 – UTILITIES PALMDALE WATER DISTRICT BOUNDARY

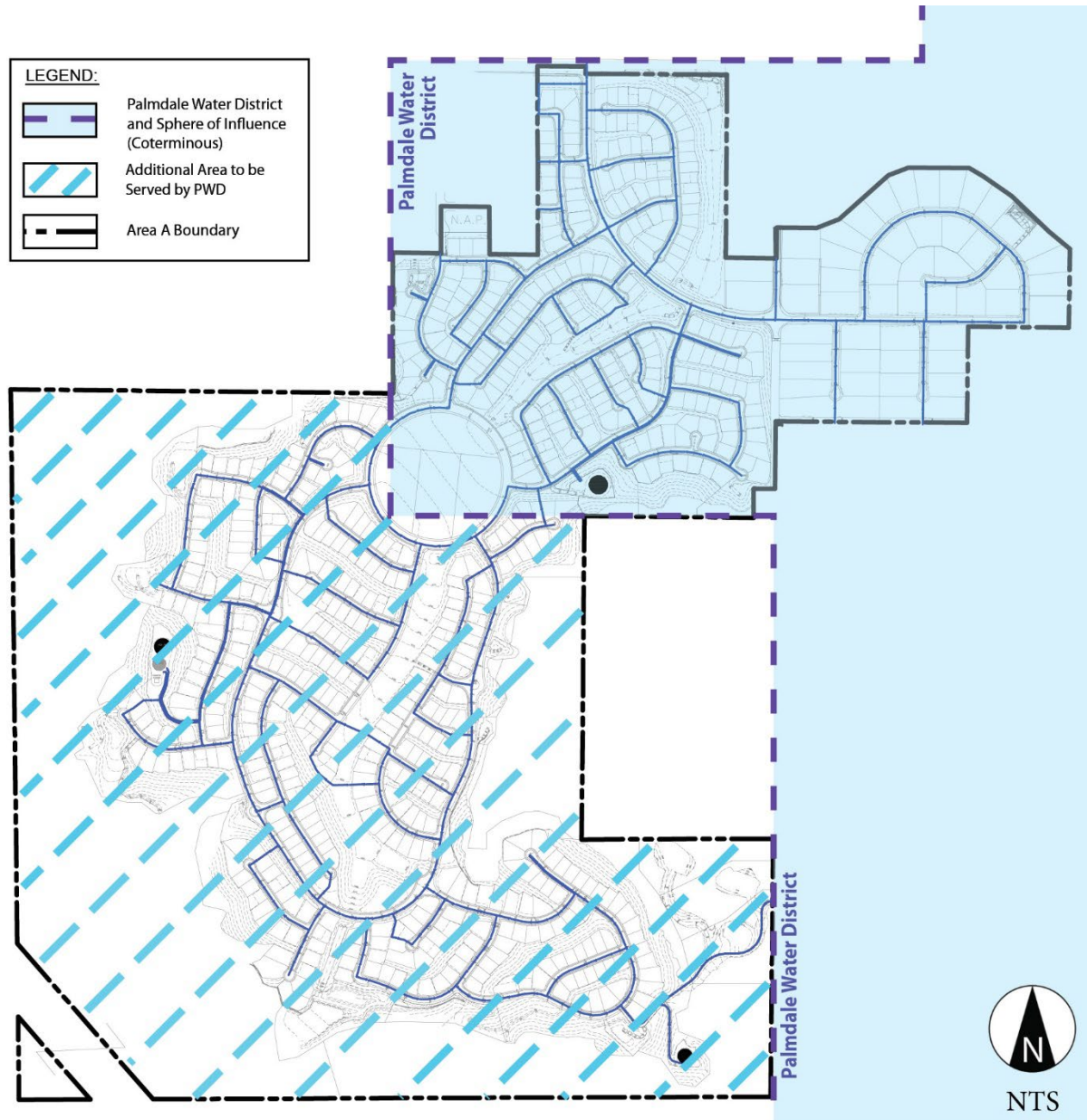
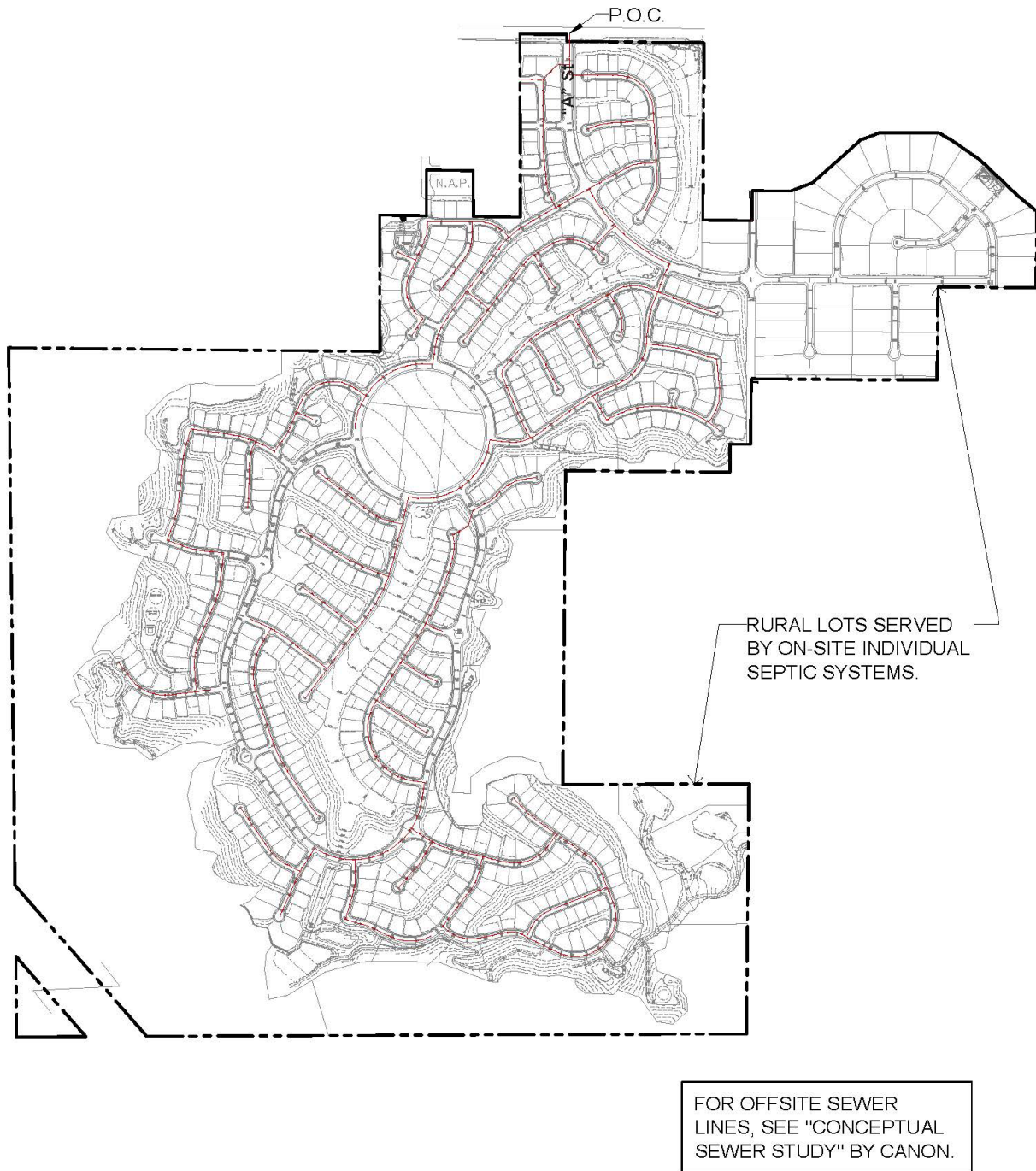


EXHIBIT 4.19-2 – CONCEPTUAL SEWER SYSTEM PLAN



Solid Waste

Waste Management of Antelope Valley provides solid waste disposal service to Palmdale residents and businesses. The Antelope Valley Landfill (1200 West City Ranch Road, Palmdale) will contain Project-generated residential waste. The Landfill accepts loads from surrounding areas in the Antelope Valley but does not accept liquid waste and sludge and is not approved for disposal of hazardous materials. The Antelope Valley Landfill has served residential uses and commercial establishments in Palmdale since 1955. The Landfill covers approximately 72 acres, of which the northern 65-acres are approved for landfill operations under Solid Waste Facilities Permit No. 19-AA-0009. Approximately 57 of the 65 acres are used for disposal of refuse and 7 acres used for offices and hauling operations. Immediately bordering the Antelope Valley Landfill property to the west is a 98-acre area the City of Palmdale annexed in 2003. Prior to annexation, the Los Angeles County Department of Regional Planning approved a Conditional Use Permit (Solid Waste Facilities Permit No. 19-AA-5624) for use of this land as a landfill. An additional 10 acres were approved for ancillary uses. Thereby, the total landfill area is 180 acres.

A 2011 Conditional Use Permit would allow the boundary of the combined landfill properties to 185 acres, increase the permitted daily limit to 3,600 tons/day of solid waste disposal, and increase the “total” daily intake of refuse and recyclables was increased to a peak of 5,548 tons/day.

Residential development in areas proposed for annexation to the City of Palmdale that are not within the Quail Valley Project site would increase demand for additional sewer service. Site-specific analyses for LAFCO-approved non-Quail Valley annexation properties and related projects would need to be conducted to determine levels of impacts and appropriate mitigation (if required), such as Development Impact Fees or construction of new sewer facilities and/or expansion of existing sewer facilities that would provide services for the non-Quail Valley Annexation area.

Telephone

Land-line telephone service is provided based on availability of existing lines or on availability of digital telephone service. The Public Utilities Commission does not regulate fees. Developers must pay for the extension of existing land-lines to serve their developments. The number of lots served determines the cost of line extensions. Service availability is based on customer demand.

Development of non-Quail Valley annexation properties would generate additional demands for utility service that would add to area demands. Development on the LAFCO-approved non-Quail Valley properties proposed for annexation would require site-specific environmental analysis of potential impacts pertaining to CEQA-identified Utilities and Service Systems topics for analysis. The Falcon Glen project site could yield a population increase of 3,510 persons at full build out of 975 single-family dwelling units.

The level of environmental impacts to Utilities and Service Systems that would accompany annexation of the non-Quail Valley Project site properties (Falcon Glen and other properties) depicted in Exhibits 2-3A through 2-3D would largely depend on specific development activity in the whole of the annexation areas LAFCO determines acceptable for annexation.

4.19.2 REGULATORY FRAME WORK

Federal Regulations

California Integrated Waste Management Act

In 1989, the State of California passed the California Integrated Waste Management Act (Assembly Bill 939). This Act requires cities and counties to reduce the amount of solid waste that enter existing landfills through recycling, reuse and waste prevention efforts. Assembly Bill 939 required every city and county in California to prepare a Source Reduction and Recycling Element to its Solid Waste Management Plan that identifies how each jurisdiction planned to meet mandatory State waste diversion goals of 25 percent by year 1995 and 50 percent by year 2000. The purpose of Assembly Bill 939 is to “reduce, recycle, and re-use solid waste generated in the state to the maximum extent feasible.” Noncompliance with goals and timelines established within the act can be severe. The Act imposes fines of as much as \$10,000 per day on jurisdictions not meeting recycling and planning goals.

California Code of Regulations

Quail Valley will be required to comply with Title 24 and Title 20 of the California Code of Regulations. Title 24 contains California Building Standards, including the California Plumbing Code (Part 5) that promote water conservation. Title 20 of the Code addresses Public Utilities and Energy and includes appliance efficiency standards that promote water conservation.

Local Regulations

City of Palmdale General Plan (Palmdale 2045)

A Consistency Assessment of Palmdale 2045 Goals and Policies relevant to the Quail Valley Project Utilities and Service Systems analysis is contained in **Appendix A** of this EIR. Following are Palmdale 2045 Goals and Policies relevant to the Quail Valley Project.

Land Use and Community Design

Goal LUD-3: **A City with high-quality services and facilities in all neighborhoods.**

Policy LUD-3.5: **Infrastructure Capacity and Service.** Ensure that there will be adequate water and wastewater system capacity to meet projected demand by continuing to oversee the development of adequate and dependable public services and facilities to support both existing and future development.

Policy LUD-3.6: **Infrastructure Funding and Programs.** Continue to implement comprehensive water and wastewater management programs and ensure that future developments pay their fair share for any infrastructure improvements demand necessary.

Conservation Element

Policy CON-6.2: **Reduce Landscaping Irrigation Needs.** Require the use of water conserving native or drought resistant plants and drip irrigation systems where feasible.

Policy CON-6.4: **New Construction Water Conservation.** Require water conserving appliances and plumbing fixtures in all new construction.

Section 4.19

Environmental Impacts – Utilities and Service Systems

Goal CON-7: **Maintain and Further the City’s Commitment to Long-Term Water Management Within the Antelope Valley by Planning for the Conservation and Managed Use of Water Resources, Including Groundwater, Imported Water, and Reclaimed Water.**

Policy CON-7.5: **Implementation.** Promote implementation of water reduction and recycling systems that are feasible and appropriate to the Planning Area.

Policy CON-7.6: **Water Recycling.** Encourage residents and businesses to recycle water where feasible, and where water recycling does not result in health and safety concerns.

Public Facilities, Services, and Infrastructure Element

Goal PSFI-3: **Ensure that All Development in Palmdale is Served by Adequate Water Distribution and Sewage Facilities.**

Policy PFSI-3.1: **Water Supply and Delivery.** Support water suppliers and other jurisdictions within the Antelope Valley in studying status and projected needs for water supply and delivery.

Policy PFSI-3.6: **Code Compliance.** All private sewage disposal systems must comply with the requirements of the City of Palmdale Plumbing Code, the Los Angeles County Health Department, and Lahontan Regional Water Quality Control Board and any Memorandum of Understanding between these agencies concerning private sewage disposal systems.

Goal PSFI-3: **Ensure that All Development in Palmdale is Served by Adequate Water Distribution and Sewage Facilities.**

Policy PFSI-3.8: **Public Sewer System Utilization Requirement.**

Policy PFSI-3.11: **New Development Fees.** Require new development to pay necessary fees for expansion and ongoing maintenance of the sewage disposal system to the appropriate agencies, to handle the increased load, which it will generate.

Policy PFSI-3.12: **Water and Wastewater BMPs.** Utilize best management practices (BMP) in the purveyance of water resources and management of wastewater.

Policy PFSI-3.14: **Water and Wastewater Provision.** Ensure the provisions of adequate water and wastewater services to all new development.

Policy PFSI-3.16: **Service Levels.** Provide sufficient levels of water, sewer, and storm drain services throughout the City.

Policy PFSI-3.18: **Water Conservation.** Support and promote water conservation across all facets of City water infrastructure.

Goal PSFI-4: **Maximize the Use of Infrastructure Facilities through Appropriate Land Use Strategies.**

- Policy PFSI-4.2:** **Utilize Existing Infrastructure.** Encourage development, which fully utilizes existing infrastructure systems, while decreasing the need for costly extensions of infrastructure into undeveloped areas.
- Policy PFSI-4.3:** **Infrastructure Evaluation.** Evaluate infrastructure facilities and service levels within developed areas, which annex to the City, and promote programs to retrofit street, drainage and sewer improvements where warranted.
- Goal PSFI-5:** **Ensure that adequate public utilities are available to support development in an efficient and orderly manner.**
- Policy PSFI-5.1:** **Development Priorities.** Prioritize development in areas that have existing horizontal infrastructure (roads, sewer, water, drainage, etc.).
- Policy PFSI-5.2:** **On-Site Infrastructure.** Require all new development, including major modifications to existing development, to construct required on-site infrastructure improvements pursuant to City standards.
- Policy PFSI-5.3:** **Off-Site Fair Share Contribution.** Require all new development, including major modifications to existing development, to construct or provide a fair share contribution toward construction of required off-site improvements, needed to support the project. This includes a fair share contribution toward development of regional master facility plans for roads, sewer, water, drainage, schools, libraries, parks, fire, and other community facilities, prior to granting approval of development applications.
- Policy PFSI-5.7:** **Adjacent Development Integration.** Require that individual development projects integrate with adjacent development with respect to backbone infrastructure (streets, sewer, water, and drainage). If adjacent property is undeveloped, a conceptual plan should be prepared to show that the pending development will allow for future integration and development of adjacent properties in a manner which is reasonable from a design, construction, and cost standpoint.
- Goal PSFI-6:** **Coordinate with Utility Providers to Support Adequate Provision of Critical Utilities.**
- Policy PFSI-6.5:** **Utility Provision.** Coordinate with electricity, gas, and waste providers to ensure adequacy of services for future and current needs.
- Policy PFSI-6.8:** **Utility Easements.** Through the development review process, protect existing utility easements and require dedication of additional easements where needed.

Sustainability, Climate Action, and Resilience Element

- Goal SCR-5:** **Increased Resource Capture and Reduced Waste Sent to Landfills (SB 1383).**
- Goal SCR-6:** **Safe and Secure Water Supply.**

City of Palmdale Master Drainage Plan

The General Plan Safety Element indicates that the City of Palmdale will require developers to comply with the Master Drainage Plan, which provides guidelines for handling nuisance water from developments before storm drain facilities are constructed. In addition, the Master Drainage Plan provides a program for mitigation of regional drainage impacts.

Floodplain Development Standards

In addition to the requirement for all development in the City to be consistent with the Master Drainage Plan, all development in flood hazard areas is required to comply with State and Federal regulations, including the following:

- Executive Order 11988, Flood Plain Management;
- Flood Disaster Protection Act of 1973, as amended;
- National Flood Insurance Program;
- Floodplain Management Guidelines; and,
- Los Angeles County Flood Control District regulations.

Where development in flood hazard areas cannot be avoided, a project or activity must be designed or modified to minimize potential adverse impacts affecting floodplains, to restore and preserve the natural and beneficial values served by floodplains, and to use measures that mitigate or reduce risk of flood loss. Mitigation must achieve protection of life, property, and the natural and beneficial values of the floodplain.

Septic Tank Limitations

Exhibit S-13 of the Palmdale 2045 Safety Element depicts areas with septic tank limitations. Soils with a permeability of more than one inch per hour, excessive or good drainage, no flood hazard, and a permanent water table more than 6 feet deep are considered slight limitations for use of septic tanks. Moderate limitation is characterized by soils of a permeability of 21.0 to 0.63 inch per hour or less, somewhat poor drainage, flooding length is less than 48 hours and the permanent water table is from 4 to 6 feet. Severe limitations for septic tanks are due to a permeability of 0.63 inch per hour or less, very poor drainage, a chance of flooding one year in five, and a water table less than 4 feet. The northeastern portion of the Quail Valley Project (Planning Area 2) is in an area of slight limitation for septic tank use.

4.19.3 THRESHOLDS OF SIGNIFICANCE

Pursuant to Appendix G of the CEQA Guidelines the proposed project would create a significant impact to utilities and service systems if it would:

Threshold UT-1 Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects

Threshold UT-2 Have insufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiply dry years

Threshold UT-3	Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing comments
Threshold UT-4	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
Threshold UT-5	Comply with federal, state, and local management and reduction statutes and regulations related to solid waste

4.19.4 ENVIRONMENTAL IMPACTS

Threshold UT-1	Would the Project Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effect?
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Less Than Significant Impact.

The Palmdale Water District has issued a Water Supply Assessment (reference the Appendices to this Draft EIR) that indicates the District will be able to supply water to the developed Quail Valley Project.

The Project site is required to be annexed to Los Angeles County Sanitation District No. 20 to provide wastewater service. It is anticipated that this annexation would be processed concurrently with Project site annexation to the City of Palmdale.

The 730-unit Project would generate approximately 189,800 gallons of wastewater daily (based on a generation factor of 260 gallons per unit per day, as contained in the Supplemental Final Environmental Impact Report for College Park Palmdale, 1999). Wastewater generated by Project operation would be treated at the Palmdale Water Reclamation Plant. Currently, Palmdale Water Reclamation Plant provides primary, secondary, and tertiary treatment for a design capacity of 12,000,000 gallons of wastewater per day. In addition, planned expansion to the Reclamation Plant would enable it to treat approximately 22.4 million gallons per day. the Project site in addition to the existing wastewater demand. The resultant level of impact of Project operation would be less than significant.

Although the Project will be comprised of 730 residential units, 54 of those units will be on a septic system and thereby not generate sewage flow. Thereby, the impact on the sewer system will originate from 676 residential units. Based on the County Sanitation Districts of Los Angeles County estimated the expected average wastewater flow from the 676 residential units that will connect to the sewer system will be 189,800 gallons per day.

On-site sewage will be conveyed northerly at the primary entrance through a gravity sewer line across Avenue S at "A" Street through a proposed 15-inch sewer to be constructed across the property directly north of the Project, through the existing City of Palmdale sewer in the Anaverde/City Ranch Development, and connect to the 18-inch Elizabeth Lake Road Extension Trunk Sewer at the intersection of The Groves/Parkwood Avenue.

The detailed sewer analysis performed for the Project indicated the existing and proposed City of Palmdale sewers are adequately sized to convey peak Project sewage flow from the Project site to the existing Elizabeth Lake Road Extension Sewer.

If the proposed sewer line for the Project is not constructed by the adjacent property owner prior to the need for sanitary sewer connections in Quail Valley, a recorded mutual benefit agreement between the developer of the proposed Project and the owner of the adjacent property provides an easement and construction rights to allow for an adequate sewer line to be constructed on the adjacent property to service the Project.

The one-acre rural equestrian lots located in Planning Area 2 in the northeast corner of the Project site are lower in elevation than the gravity sewer line and therefore will be served by individual septic systems, which is consistent with the adjacent existing development. The three five-acre rural lots in Planning Area 10 in the southeast corner of the Project site also will be served by individual septic systems.

All new sewer infrastructure improvements and extensions required to safely and effectively convey wastewater to existing sewer lines will be constructed as part of Project development to specifications of the Los Angeles County Sanitation District and the City of Palmdale City Engineer. The resultant level of impact of Project operation would be less than significant.

Threshold UT-2 Would the Project have sufficient water supplies available to serve the Project and reasonably foreseeable future development during normal, dry and multiple dry years?

Less Than Significant Impact.

As indicated previously, the Palmdale Water District has issued a Water Supply Assessment (reference the Appendices to this Draft EIR) that indicates the District will be able to supply water to the developed Quail Valley Project. Therefore, the resultant level of impact would be less than significant.

Threshold UT-3 Would the project result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing comments?

Less Than Significant Impact.

A portion of the Project site is located within the Anaverde Creek Watershed. Debris basins are planned at the upper elevations of the Area A development area at natural intersections of various natural drainage areas. The primary drainage is planned to be conveyed within the street curb area to storm drain lines and from there to a large storm drain line in the central greenbelt, and then to terminate in an open detention basin adjacent to Avenue S. Drainage from the basin will be conveyed via the existing box culvert beneath Avenue S to the north as depicted in **Exhibit 4.19-3, (Conceptual Drainage Plan)**.

The five-acre rural lots in the southeast corner of the Project site (Planning Area 10) will not significantly alter drainage in this area. These five lots are sufficiently large to accommodate all drainage off their properties on each lot.

The "Quail Valley Sewer Area Study – Tentative Tract 65813" indicates that "in the case that the Quail Valley project begins construction before Tentative Tract 54328, an interim sewer solution" is proposed.

There is a recorded mutual benefit agreement between the Quail Valley development area and the Tentative Tract 54328 area (north of Avenue S) that allows Quail Valley to construct the sewer before the adjacent Tract has been developed. The interim solution offers two options for location of the sewer. Option 1 involves the sewer in existing planned alignment that would allow for construction of the permanent sewer on the adjacent property, and which would require a large amount of grading to construct the sewer at the proposed future grades. Option 2 involves the construction of a temporary sewer in a different alignment that allows for a lesser amount of grading consistent with existing site conditions. The sewer is optimally designed to be located at least 8 feet below existing grade and 8 feet below the proposed future grading of the Project site to allow for future construction without disturbing the interim sewer line. The second option across the adjacent property would be a temporary sewer that would be abandoned in place once the permanent sewer is constructed.

According to the Canon-prepared 2023 updated Sewer Study, single family residences generate an average of 260 gallons of waste water daily. Conclusions of the Sewer Study indicate that the pipeline capacities draining to the Elizabeth Lake Road Trunk Sewer "...has the capacity to handle the flows from the Quail Valley project." In addition, the Sewer Study concludes as follows:

- "The overall flow projections for the Quail Valley study area are fairly consistent with the 93-1 Sewerage System Study and the Anaverde/City Ranch Sewer Area Study ... [T]he overall flow projections remain fairly consistent. Loading and peaking factors are more in line with the implementation of water conservation efforts since the two previous studies, which has allowed room for additional units to connect."
- "...[T]he existing and proposed City of Palmdale sewers are sized to adequately convey the peak sewage flow from the Quail Valley project to the existing Elizabeth Lake Road Extension Trunk Sewer. The total impact on the Elizabeth Lake Road Trunk Sewer remains unchanged and is consistent with planning according to the Anaverde Sewer Area Study, and the Ritter Ranch DFD 93-1 Sewerage System Study."

EXHIBIT 4.19-3 – CONCEPTUAL DRAINAGE PLAN

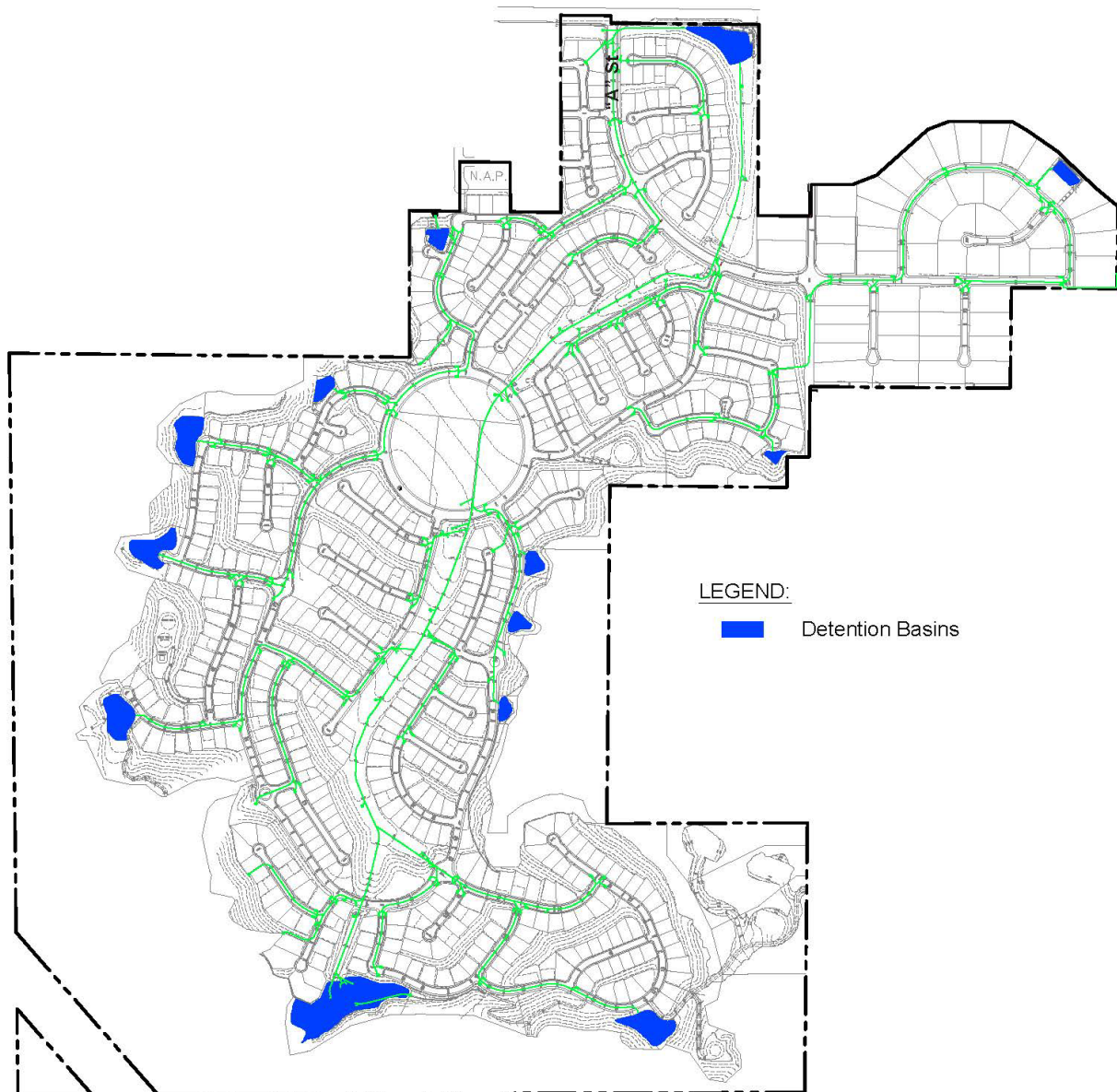
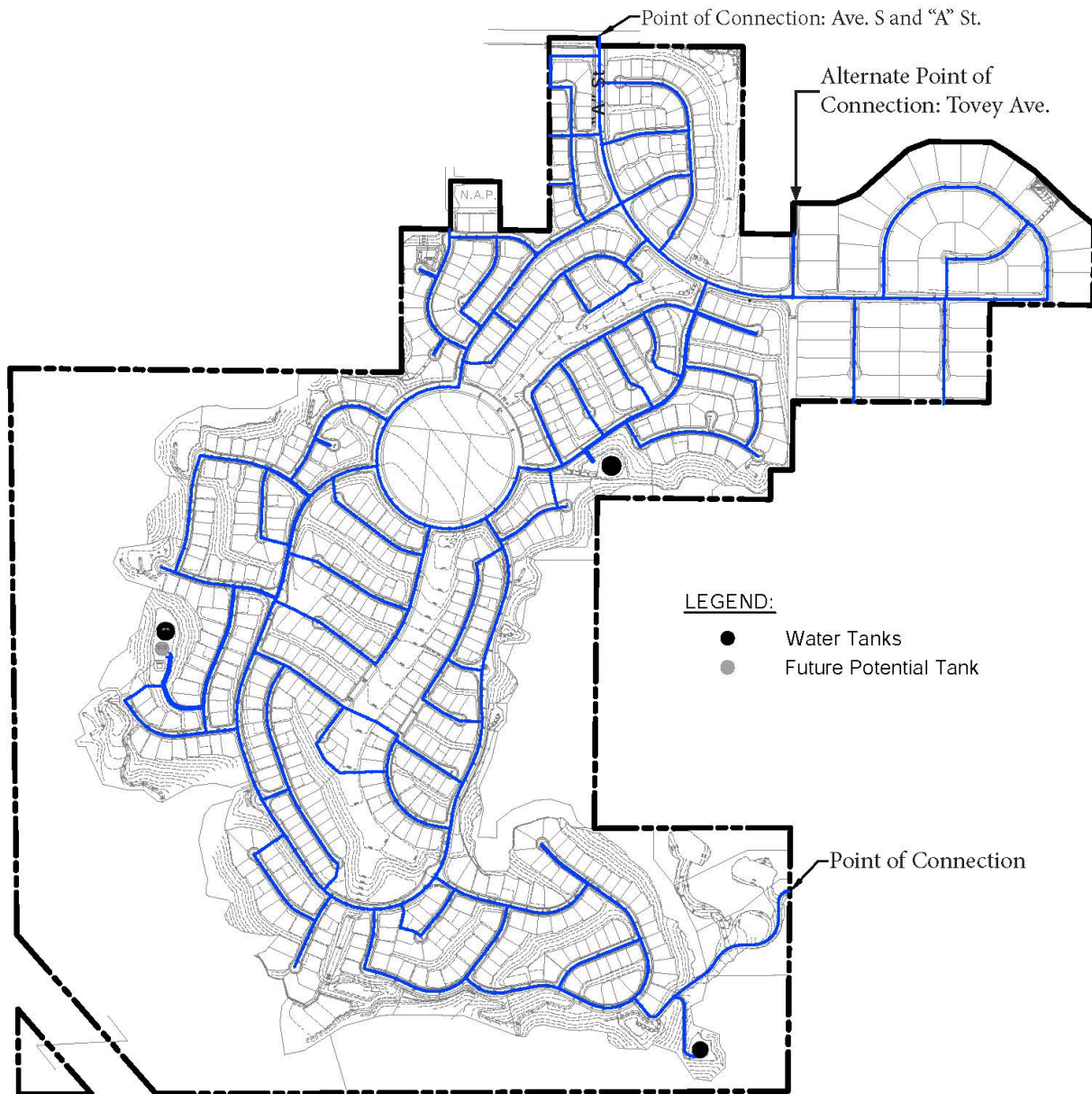


EXHIBIT 4.19-4 – CONCEPTUAL WATER SYSTEM



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Environmental Impacts – Utilities and Service Systems

Construction of these new facilities would provide for safe and efficient drainage on the Project site. Post-development flows leaving the Project site will be less than existing flows in the pre-development condition.

The resultant level of impact would be less than significant.

Threshold UT-4 Would the project 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?

Less Than Significant Impact.

It is not anticipated excess solid waste generated will be in excess of State or City of Palmdale standards. Project-generated solid waste will include recycling at least 65% of construction waste. In addition, Quail Valley Project development and operation will comply with State and City requirements pertaining to recycling construction-related waste. Notes detailing this compliance will be placed on the Project Grading Plans and/or Project Building Plans.

The resultant level of impact would be less than significant.

Threshold UT-5 Would the project comply with federal, state, and local management and reduction statutes and regulations related to solid waste?

Less Than Significant Impact.

Project operation of 730 single-family residential units would generate approximately 1,489.2 tons of solid waste annually (based on a per unit assumption of 2.04 tons annually, as used in the Supplemental Final Environmental Impact Report for College Park Palmdale, 1999). Compliance with State diversion regulations would indicate that 744.6 tons would be diverted from the Antelope Valley Landfill, thereby leaving 744.6 tons annually to be disposed of in the Landfill. According to a preliminary draft environmental document prepared for the Project in 2008, the Landfill had a remaining capacity of approximately 10.12 million tons, which would translate to a remaining life span of 27 years (Los Angeles County Department of Regional Planning, "Public Services and Facilities," Los Angeles County Draft Preliminary General Plan, 2007, Table 8.1). The maximum permitted daily disposal rate is 1,400 tons at one of the two properties and 1,800 tons at the second property. Therefore, Project-generated waste requiring disposal at the Landfill would represent a minimal percentage (.006 percent) of the daily permitted disposal rate at the Landfill.

In addition, the Antelope Valley Recycling and Disposal Facility includes the following facilities:

- Computerized weigh station
- LNG Fueling station
- Operations and Maintenance Facility
- Recycling operation
- Building debris and green waste recycling
- Electronic waste recycling

As a result, Project operation impact related to solid waste disposal in the Antelope Valley Landfill would be less than significant.

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Environmental Impacts – Utilities and Service Systems

Project development and operation will be required to comply with California Assembly Bill 939 (1989), which mandated that each County in the State meet diversion goals of 50% by 2000. In addition, AB 939 established an integrated framework for program implementation, solid waste planning and solid waste facility and landfill compliance.

In addition to complying with State regulations, Project development will comply with the City of Palmdale Source Reduction and Recycling Element to its Solid Waste Management Plan, which requires a construction waste diversion rate of 65 percent. In addition, the Project will be required to comply with Title 24 and Title 20 of the California Code of Regulations. Title 24 contains California Building Standards, including the California Plumbing Code (Part 5) that promote water conservation. Notes detailing this compliance will be placed on the Project Grading Plans and/or Project Building Plans.

Waste Management encourages Palmdale residents to drop off household hazardous wastes at the Antelope Valley Environmental Collection Center (AVECC). The AVECC serves the needs of Antelope Valley residents for free. Residents can dispose of household hazardous waste, such as paint, oil or batteries, and old electronics. No business or commercial hazardous waste is accepted.

No impact pertaining to conflict with Federal, State or City of Palmdale statutes and regulations related to solid waste would result from Project development and Project operation.

Development on the LAFCO-approved non-Quail Valley properties proposed for annexation would require site-specific environmental analysis of potential impacts pertaining to CEQA-identified Utilities and Service Systems topics for analysis. The non-Quail Valley areas within the overall annexation boundary include vacant lots, lots with existing housing, and the proposed Falcon Glen project area. The development of non-Quail Valley annexation properties would generate additional demands for utility service, which would add to area demands. The level of such impacts would need to be analyzed on a site-specific basis at the time of discretionary permit processing for those areas. Site-specific analyses for LAFCO-approved non-Quail Valley annexation properties and related projects would need to be conducted to determine levels of impacts and appropriate mitigation (if required), such as fees or construction of new facilities and/or expansion of existing facilities that would provide utilities for the non-Quail Valley Annexation area. The Falcon Glen project site could yield a population increase of 3,510 persons at the full build-out of 975 single-family dwelling units. The Falcon Glen project is undergoing a separate approval process. The project's Utilities and Service Systems impacts will be addressed as part of that project review. The Falcon Glen property area is currently vacant land.

The developer(s) of non-Quail Valley Annexation properties would be required to secure utilities adequate to serve the newly developed areas.

4.19.5 CUMULATIVE IMPACTS

According to the City of Palmdale, there are 14 projects existing or “in the pipeline” within approximately two miles of the approximately 878.1-acre Quail Valley Project site. Total build out of these projects will comprise the following: 9,477 single-family detached residential units; 2,823 single-family attached residential units; 2,080 multi-family residential units; 1,161,935 square feet of commercial space; and 90,000 square feet of industrial space. This translates to Quail Valley increasing the single-family detached residential units by 7.7 percent, increasing the total single-family (detached and attached units) by 5.9 percent, and increasing the total number of residential units by 5.1 percent. This indicates a commensurate

increase in need for water, wastewater and solid waste disposal services occurring from cumulative Projects development and Projects operation.

Project development and operation, in combination with other existing and anticipated future projects, would require water infrastructure, wastewater infrastructure, and solid waste disposal services. Public utility infrastructure development involves utility providers and jurisdictions with discretionary review authority. Coordination associated with preparation of infrastructure plans is intended to ensure adequate public utility services and resources are available to serve individual development projects and cumulative growth in the Project vicinity. Each individual development project is subject to review for utility capacity. Coordination with utility providers would allow for provision of utility services to the Project and to other developments in the vicinity of the Project site. On December 18, 2019, the Palmdale Water District approved the Applicant-supplied Water Supply Assessment for Quail Valley. The Approval stated that “the total water supplies available to Palmdale Water district during normal, single-dry, and multiple-dry years with a 20-year projection will meet the projected water demand of the project in addition to the demand of existing and other planned future uses, including, but not limited to, agricultural and manufacturing uses.” The Water Supply Assessment approval also indicates that a portion of the required water supply will be provided by projected water supplies. Furthermore, the approval states that the Water Supply Assessment “... is also conditioned upon the Project developer entering into an agreement with Palmdale Water District relating to, among other things, the design and construction of water system improvements necessary to provide water service to the Project, the payment of all required fees and charges of the District and other governmental entities with jurisdiction over the Project, obtaining all required permits and approvals for the Project, resolution of the annexation issues and/or tax sharing and other issues arising from the exchange of State Water Project service areas, and the developer’s compliance with all applicable laws applicable to the Project, including the rules and regulations of Palmdale Water District.” Subsequently, the Palmdale Water District extended the Water Supply Assessment as valid until December 22, 2023 and, on October 17, 2023, extended the Water Supply Assessment until December 20, 2024. This second extension was granted in recognition that the City adopted its updated General Plan (Palmdale 2045) in 2023 and adopted a new Joshua Tree protection effective July 1, 2023.

The Project and other planned projects are subject to connection and service fees to offset increased demand and assist in facility expansion and service improvements. Due to utility planning and coordination, cumulatively considerable impacts to Utilities and Service Systems would not occur.

It can be anticipated that residential development would occur in Annexation areas and, thereby, would result in direct growth of population in those areas to be annexed to the City of Palmdale. As a result, additional cumulative impacts to Utilities and Service Systems could result from proposed non-Quail Valley annexation areas. Site-specific analyses for non-Quail Valley annexation properties and related projects would need to be conducted to determine levels of cumulative impacts and appropriate mitigation (if required), including elements such as fees or construction of new public facilities and/or expansion of existing public facilities that would provide utility or service systems as a result of the development of the non-Quail Valley Annexation area.

4.19.6 LEVEL OF SIGNIFICANCE BEFORE MITIGATION

No significant impacts related to Utilities and Service Systems would result from Project development or Project operation.

4.19.7 MITIGATION MEASURES

Project development and operation will comply with all required State and City of Palmdale regulations. Also, Project infrastructure will accommodate all Project drainage and wastewater generation. In addition, the Project Applicant has secured an approved Water Supply Assessment from the Palmdale Water District.

No Mitigation Measures are required.

4.19.8 LEVEL OF SIGNIFICANCE AFTER MITIGATION

The resultant level of impact of Project development and Project operation related to Utilities and Service Systems will be less than significant.

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4.20 Wildfire

The following analysis is derived from information in the following: City of Palmdale General Plan, "Palmdale 2045"; City of Palmdale Municipal Code; County of Los Angeles General Plan; CA.gov – California State Geoportal – oehha.ca.gov.eclenviroscreen/indicators; CalFire “California Fire Hazard Severity Zone Viewer,” (July 30, 2021); and, the Quail Valley Planned Development Project plans.

4.20.1 ENVIRONMENTAL SETTING

The Project site is located on the south side of Avenue S, approximately 1 mile west of California State Route 14 (SR-14). The location of the Project site is depicted in **Exhibits 3.1-1 (Regional Location Graphic)** and **3.1-2 (Project Location Map)**. The Project site is not contiguous with the City of Palmdale’s corporate boundary although the City owns Avenue S, which is directly adjacent to the Project site. However, the proposal includes a request to annex the entire Project site and adjacent parcels to the north, east and west of the Project site consistent with the City Sphere of Influence boundary. The proposed annexation boundary currently includes 211 assessor parcels, (53 parcels within the property and 158 additional parcels within unincorporated Los Angeles County), totaling approximately 1,310 acres. **Exhibit 3.1-3** depicts the proposed Annexation Boundary.

Four Los Angeles County Fire Department fire stations (Stations 24, 37, 80, and 131) are located within a five-mile radius of the Project site, as identified in the Public Services Section of this document.

Wildland Hazards

The majority of the Project site is located within a July, 2021-identified CalFire-designated Very High Fire Hazard Safety Zone and within a State Responsibility Area. Portions of the Project site are located in High Fire Hazard Safety Zone. Additionally, a Very High Fire Hazard Safety Zone is located adjacent to the Project site to the west, south of Avenue S.

A Fire Hazard Severity Zone is a mapped area that designates zones with varying degrees of fire hazard (i.e., moderate, high, very high). The zone designations are based on factors such as fuel, slope, and fire weather. Fire Hazard Severity Zone maps evaluate wildfire hazards, which are physical conditions that create a likelihood that an area will burn over a period of 30-50 years. The Zone maps do not consider or account for modifications such as fuel reduction efforts.

Although Fire Hazard Severity Zones do not predict when or where a wildfire will occur, the Zones do identify areas where wildfire hazards could be more severe and therefore are of greater concern. The Zones are intended to assist to limit wildfire damage to structures through planning, prevention, and mitigation activities and requirements that reduce risk. The Fire Hazard Severity Zones serve various purposes. The Zones are used to designate areas where California’s wildland urban interface building codes apply to new buildings and to be a factor in real estate disclosure. In addition, local governments consider fire hazard severity in the safety elements of their general plans. Moderate, High, and Very High Fire Hazard Severity Zones are found in areas where the State has financial responsibility for fire protection and prevention. Only Very High Fire Hazard Severity Zones are found in Local Responsibility Areas.

Three wildfires have occurred on the Project site over the past 20 years, which TeraCor has interpreted

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“...to have had a deleterious effect on at least two habitat types on the property, as evident in the loss of a high percentage of Joshua trees and many junipers on-site.” Much of the Project site supports vegetation still in recovery from persistent wildfire and “...some areas may not recover even in the absence of fire for many decades to come.” In addition, climatic shifts may hinder habitat recovery from fire as rainfall becomes more infrequent in Southern California and seasonal extremes become more persistent and more severe.

The fire season in Palmdale generally occurs from September to November when the Santa Ana winds blow, although climate change appears to be causing a lengthened season. If rains are minimal, grass may dry as early as May and brush may dry as early as July. Wildfires may be started by carelessly used matches and cigarettes, lack of spark arrestors in off-road vehicles, target shooting ricochets, and arson.

4.20.2 **REGULATORY FRAMEWORK**

Local Regulations

City of Palmdale (Palmdale 2045)

A General Plan Consistency Assessment of Palmdale 2045 Goals and Policies, relevant to the Quail Valley Project Wildfire analysis is contained in **Appendix A** of this EIR. Following are Palmdale 2045 Goals and Policies relevant to the Quail Valley Project.

Safety Element

- Goal SE-2:** **Minimize Public Health, Safety, and Welfare Impacts Resulting from Wildfire Hazards.**
- Policy SE-2-1:** **Critical Facilities.** Prohibit new public or critical facilities in Very High Fire Hazard Severity Zones, except when other options do not exist.
- Policy SE-2.3:** **Wildland Development.** Require that developments located in VHRSZ incorporate and enforce standards for construction, including a fuel modification program (i.e., brush clearance, planting of fire-retardant vegetation) to reduce the threat of wildfires, accounting for any increased risk related to climate change.
- Policy SE-2.4:** **Landscaped Buffer Zones.** Provide fire-resistant landscaped buffer zones between high-risk fire hazard areas and urban development with fire clearance located on private land and maintained by the property owner(s).
- Policy SE-2.5:** **Maintain Firesafe Zones.** Require property owners to clear brush and high fuel vegetation and maintain firesafe zones (a minimum distance of 30 feet from the structure or to the property line, whichever is closer) to reduce the risk of fires. For structures located within a Very High Fire Hazard Severity Zone, the required brush clearance distance is 200 feet from structures to the property line.
- Policy SE-2.10:** **Water System Requirements.** Require all new development to be served by a water system that meets applicable fire flow requirements.

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- Policy SE-2.12:** **Fire Protection Plans.** Require fire protection plans for all new development in the VHFSZ.
- Policy SE-2.13:** **Long-Term Maintenance.** Continue annual brush inspections and enforce clearance requirements on public and private property within the Very High Fire Hazard Severity Zone (VHFHSZ), as dictated by CAL FIRE, in accordance with the Board of Forestry and Fire Protection Fire Safe Regulations, California Building Standards Code, and Palmdale Municipal Code related to ongoing maintenance of vegetation clearance on public and private roads, roadside fuel reduction plan, and defensible space clearances (including fuel breaks).
- Goal SE-7:** **Ensure Safe Evacuation of Residents in the Event of an Emergency Requiring Evacuation.**
- Policy SE-7.5:** **Evacuation in VHFSZ and HRSZ.** Require developers proposing development on properties within VHFSZ and HFSZ areas to evaluate and provide adequate evacuation routes.
- Goal SE-8:** **Improve Disaster Preparedness in the Event of an Emergency.**

Sustainability, Climate Action, and Resilience Element

- Policy SCR-8.7:** **Heat and Wildfire Mitigation.** Develop policies and building standards that reduce the urban heat island effect and the risk and damage of wildfire such as:
- Encourage the use of high-albedo roofs and paving
 - Incorporate more robust temperature and air quality controls in facility retrofits and designs
 - Provide consolidated public messaging about wildfire preparation, evacuation, and communications avenues in multiple languages
 - Encourage fire-wise landscaping including alternatives to wood fencing
 - Require ember-resistant attic ventilation openings
 - Encourage the installation of air filters to protect against indoor air quality impacts during wildfire smoke exposure events
 - Identify and modify vulnerable infrastructure in high wildfire risk areas, such as replacing wooden utility poles or undergrounding utility lines

4.20.3 THRESHOLDS OF SIGNIFICANCE

If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:

- Threshold WF-1** Substantially impair an adopted emergency response plan or emergency evacuation plan?
- Threshold WF-2** 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?

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- Threshold WF-3** 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?
- Threshold WF-4** 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?

4.20.4 ENVIRONMENTAL IMPACTS

- Threshold WF-1** Substantially impair an adopted emergency response plan or emergency evacuation plan?

Less Than Significant Impact.

Project design incorporates direct vehicular access to nearly every part of the Project perimeter. Where direct vehicular traffic is not provided, access is provided by incorporating existing utility company-maintained dirt roadways and short distance direct access from improved roadways. Additionally, the project is developed primarily in the lower, central portion of the valley, thereby locating housing at the downhill side of the open space areas.

The above, and off-site improvements, together with facets of the Project and compliance with City of Palmdale and County of Los Angeles regulations, will ensure Project development and operation will not result in a requirement for installation or maintenance of associated infrastructure that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment.

- Threshold WF-2** 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?

Less Than Significant Impact.

The primary site constraints to development identified in the Quail Valley Planned Development document and throughout this document (hillside topography across much of the southerly portion of the Project site; natural drainages; biological resources; archaeological/tribal cultural resources; easements) have compelled the future development on the Project site to be concentrated within lower-lying areas of Area A. The majority of the development area is located within areas of zero to 25 percent slopes. Areas within Area A with slopes of less than 10 percent occupy approximately 266 acres. Areas within Area A with slopes of 10.01-25 percent occupy an additional 215.2 acres. Therefore, the area within Area A with pre-development slopes of 25 percent or less totals approximately 480 acres (72 percent) of the approximately 670-acre Area A. The post-development area to be subdivided for residential and recreational development will total 483 acres largely, but not completely within the areas of 25% or less slope. Some grading will be necessary within areas with slopes of 25.01-50 percent to facilitate slope stabilization and surrounding

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landscape for the development area. Development will necessitate reconfiguration of some natural slopes into pads for homes, streets, trails, and the internal street system. Grading will respect and reflect the natural terrain of the Project site, as indicated in the Quail Valley Planned Development document. The development boundary within Area A (as depicted in the Planned Development Plan, Exhibits 2-2 and 3-1). [also mention the fire zone landscaping discussed in prior sections]

The majority of the Project site is located within a July, 2021-identified CalFire-designated Very High Fire Hazard Safety Zone and within a State Responsibility Area. Portions of the Project site are located in a High Fire Hazard Safety Zone. Additionally, a Very High Fire Hazard Safety Zone is located adjacent to the Project site to the west, south of Avenue S.

Three wildland fires have occurred on the Project site during the past 20 years. These fires destroyed much of the heavier flammable vegetation on the approximately 880 acres. Danger of a wildland fire on the currently-undeveloped Project site might result from unauthorized vehicular (off-road) use and hiking entrants. The post-development danger from wildland fire will be lessened through development of the property. Dried grasses within Area A will be replaced by low-water, desert-type ornamental vegetation in compliance with the Quail Valley Development Plan Landscape and Plant Palette. Project design incorporates a Fuel Modification Plan along the perimeter of the southerly portion of the residential development. The Fuel Modification Plan identifies specific zones within the Project site that are subject to fuel modification and designates areas of land where combustible native or ornamental vegetation will be modified and/or partially replaced with drought tolerant, fire-resistant plantings that in turn reduce radiant and conductive heat. Thereby, these plantings provide fire suppression defensible spaces. The “zones” are placed as buffers to permanent undeveloped areas or to areas of natural vegetation surrounding the perimeter of the portion of the Project site to be developed. The Quail Valley Fuel Modification Plan consists of the following.

- **Zone A – Setback Zone.** The Setback Zone is a minimum 20-foot-wide area beyond the edge of combustible structures, accessory structures, appendages, or projections. Plants in Zone A shall be highly fire resistant and selected from the Fuel Modification Zone Plant List in the Quail Valley Planned Development document. Irrigation is required by automatic or manual systems to maintain healthy vegetation with high moisture content. Maintenance shall include ongoing removal and/or thinning of undesirable combustible vegetation, regular trimming, and maintenance of the irrigation system.
- **Zone B – Irrigation Zone.** The Irrigation Zone supplements native vegetation and establishes and maintains planted natives and ornamental plantings. This zone shall be a minimum 50-foot wide and may be increased in width as conditions warrant. Groundcover shall not exceed 18 inches in height and tree-form shrubs less than four feet in height shall be spaces so not to create an excessive fuel mass. Plants in this zone will be chosen from the Fuel Modification Zone Plant List in the Quail Valley Planned Development document. Maintenance shall include ongoing removal and/or thinning of undesirable combustible vegetation, regular trimming, and maintenance of the irrigation system.
- **Zone C – Thinning Zone.** The Thinning Zone will be a minimum 50 feet in width and will consist of predominantly existing vegetation with the removal of the majority of undesirable plant species, trees, and tree-form shrubs, as well as the complete removal of all dead and dying vegetation. Any plants selected for planting in this zone shall be selected from the approved Quail Valley Planned Development document plant list for the Setback, Irrigated or Thinning Zones for a specific geographical area. Irrigation is not required in the Thinning Zone.

The post-development danger from start and spread of a wildland fire, and therefore of wildland fire-related

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pollution, will be lessened through development of the property. This will be the case because the Project site will replace the unimproved property with residential structures built to compliance with State and County Fire Code requirements.

Threshold WF-3 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?

Less Than Significant Impact.

Reference a) above. The majority of the numerous easements that traverse the Project site primarily involve power poles, pole lines and utility easements and associated ingress and egress rights for public utilities. In addition, SCE Company electrical transmission lines exist within a granted easement that extends in a northwesterly-southeasterly direction across the extreme southwest portion of the Project site, encumbering portions of Area A and Area B. These power lines are the responsibility of SCE and will remain after Project development. Other easements extending through the Project site grant roadway access to the power lines. Maintenance of the power lines has been ongoing since installation. Project development and Project operation will not interfere with the power lines. Therefore, the fire risk from Project development and Project operation on this existing infrastructure will be less than significant.

Threshold WF-4 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?

Less Than Significant Impact With Mitigation.

As indicated in “b” above, the development area within the Project site will be limited to the majority of the 667.5-acre Area A. Grading for the developed portion of the Project is subject to the City Hillside Management Ordinance (PMC Chapter 17.100), which will require preservation of significant ridgelines and landforms that provide the backdrop to much of Palmdale’s southern skyline, together with ensuring slope stability. To keep with the purpose and intent of the Hillside Management Ordinance, proposed development within Area A is clustered in lower elevations on the Project site. In addition, heights of manufactured slopes have been limited to the extent feasible to protect the existing viewshed. Development clustering in the lower valley area minimizes erosion and potential for runoff after rains. Although several developed slopes will exceed 30 feet in height due to the Project site topography and location of finger canyons, the required alluvial grading that will occur within the edges of the valley will incorporate variations to slope gradients, contour, landform and daylight grading, and landscape elements to minimize impacts to the natural terrain.

A portion of the Project site is located with the Anaverde Creek Watershed. A number of debris basins are planned at upper elevations of the area proposed for development, at the natural intersections of the various natural drainage areas. Primary drainage will be conveyed within the street curb areas to storm drain lines and from the storm drain lines to a large storm drain line in the central greenbelt, terminating in an open detention basin adjacent to Avenue S north of the Project site. Some low volume surface drainage and “nuisance water” will be conveyed through the storm drain system. A secondary drainage facility and discharge location will occur at the northwest corner of the Project site, but will be converted to graded residential lots after completion of regional downstream off-site drainage facilities consistent with the Hydrology Report prepared for the Project. Drainage in the lower northeast area, within Planning Area 2

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and a portion of Planning Area 3, will be conveyed within the street curb to storm drain lines prior to discharging into a detention basin at the northeast boundary of Planning Area 2 and conveyed under the aqueduct via an existing storm drain line. The three five-acre rural lots in Planning Area 10 will not significantly alter the existing drainage in this area of the Project site in that these three lots are sufficiently large to accommodate drainage changes within each lot.

Project development therefore does not expose people or structures to significant risks as a result of runoff, post-fire slope instability, or drainage changes. All physical alteration of the Project site will comply with City of Palmdale regulations pertaining to grading, slope stability and drainage protection. The resultant level of impact will be less than significant.

Development on the LAFCO-approved non-Quail Valley properties proposed for annexation would require site-specific environmental analysis of potential impacts pertaining to CEQA-identified Wildfire topics for analysis. The non-Quail Valley areas within the overall annexation boundary include vacant lots, lots with existing housing, and the proposed Falcon Glen project area. Residential development on the Falcon Glen site could result in the construction of 975 single-family dwelling units and 3,510 new residents. The Falcon Glen project is under a separate project approval process, with a separate required impact analysis. The Falcon Glen property area is currently vacant land. Development of the non-Quail Valley properties within the Annexation area would comply with all requirements related to Wildfire topics.

4.20.5 CUMULATIVE IMPACTS

The Project site currently is vacant of any development except the existing utility facilities. Off-road vehicles and hikers have in the past used the site. This exacerbates the potential for fire. Project development and Project operation will include components that reduce the danger of wildland fire on the Project site and thereby provide a positive benefit to the surrounding properties, some of which may be exposed to wildland fire. In addition, compliance with County of City of Palmdale General Plan policies, City of Palmdale Standard Conditions, with Los Angeles County Fire Department requirements, and with the City of Palmdale-approved Quail Valley Fuel Modification Plan required in Mitigation Measure M-MM-HAZ-5 below would contribute to ensuring any Project-related impacts to Project residents and residents of nearby developments related to Wildfire would be maintained at a less than significant level.

Development on the LAFCO-approved non-Quail Valley properties proposed for annexation would require site-specific environmental analysis of potential cumulative impacts pertaining to CEQA-identified Wildfire topics for analysis. The level of environmental impacts that would accompany annexation of the non-Quail Valley Project site properties (Falcon Glen and other properties) depicted in Exhibits 2-3A through 2-3D would largely depend on the whole of the annexation areas LAFCO determines acceptable for annexation..

4.20.6 LEVEL OF SIGNIFICANCE BEFORE MITIGATION

As indicated above, with the exception of potential exposure of people or structures to a significant risk of loss, injury, or death involving wildland fires, Project development and Project operation impacts related to wildland fire would be less than significant. This would be due to Project design that respects the natural terrain, provides for facilitated fire and emergency service to the Project site, and complies with City of Palmdale development regulations and with County of Los Angeles Fire Department requirements. Potential exposure of people or structures to a significant risk of loss, injury or death involving wildland

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fires would remain potentially significant prior to implementation of mitigation.

4.20.7 *MITIGATION MEASURES*

**MM-WF-1/
HAZ-5-1**

Prior to issuance of any building permits, the Applicant/Developer shall submit a Fuel Modification Plan to the City of Palmdale Community Development Director and Public Works Director for review and approval in consultation with the Los Angeles Fire Department. The Fuel Modification Plan must be in substantial conformance with the City Council-approved Quail Valley Planned Development Fuel Modification Plan.

4.20.8 *LEVEL OF SIGNIFICANCE AFTER MITIGATION*

The post-development danger from wildland fire will be lessened through development of the property, City approval of a Quail Valley Fuel Modification Plan as indicated in **Mitigation Measure MM-WF-1**, and compliance with all relevant and required City of Palmdale and County of Los Angeles regulations. Project development includes grading, soil movement to provide a level development area, elimination of some of the existing grasses, shrubs and trees, and creating a largely impervious surface to site the 730 residential units and community center, and introduced low-fuel landscaping. In addition, Project development and operation must be conducted in compliance with City of Palmdale Ordinances and regulations noted above, which will assist in reducing potential impacts from wildland fire. As a result, the level of significance related to impacts from Wildfire will be less than significant after mitigation.

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5.0 Other CEQA Considerations

Pursuant to *CEQA Guidelines* Section 15126.2, the following is a discussion of short-term and long-term effects of the Project on the environment, significant irreversible environmental changes that would be caused by Project development and operation should it be implemented, and growth-inducing impacts.

5.1 SHORT-TERM AND LONG-TERM IMPLICATIONS OF THE PROJECT/SIGNIFICANT ENVIRONMENTAL EFFECTS THAT CANNOT BE AVOIDED IF THE PROPOSED PROJECT IS IMPLEMENTED

CEQA Guidelines (Section 15126(b)) required an EIR to disclose significant environmental effects of a project that cannot be avoided if the Project is implemented. As described in **Section 4 (Environmental Impacts)** of this EIR, the Project is anticipated to result in a significant unavoidable Transportation impact pertaining to Vehicle Miles Traveled and a significant unavoidable Air Quality impact pertaining to short-term construction emissions from grading activities that will exceed Antelope Valley Air Quality Management District thresholds of significance for nitrogen oxides, as identified in Sections 4.3 and 4.17, respectively, to the environment that cannot be reduced to a less than significant level after implementation of relevant City of Palmdale Standard Conditions, compliance with applicable State, City and regional regulations, and applicable feasible Mitigation Measures. No other impacts are anticipated that cannot be reduced to a less than significant level.

5.2 SIGNIFICANT IRREVERSIBLE ENVIRONMENTAL CHANGES THAT WOULD BE INVOLVED IN THE PROPOSED ACTION SHOULD IT BE IMPLEMENTED

CEQA Guidelines (Section 15126.2) require environmental impact reports to address any significant irreversible environmental changes that would be involved in the proposed action should it be implemented. Such an environmental change would occur if: the project would involve a large commitment of non-renewable resources; the primary and secondary impacts of the project would generally commit future generations to similar uses; the project involves uses in which irreversible damage could result from any potential environmental accidents; or, the proposed consumption of resources is not justified.

To assess whether the Project may result in significant irreversible environmental changes requires a determination of whether important non-renewable resources would be degraded or destroyed in such a way there would be little chance of restoring the resources. Buildout of the Project would represent a long-term commitment to a more intensive land use than what currently exists on the Project site. The Project would involve an irreversible commitment to the use of non-renewable resources during the construction and operation phases in the form of refined petroleum-based fuels, natural gas for space and water heating, and mineral resources used in construction materials. Once transformed into fuel or other energy forms, or into construction materials, these resources cannot be recovered. Some reuse of construction materials after the useful life of this Project may be possible. It is anticipated that these resources would likely be committed to other projects, if not used for this one.

Irreversible long-term environmental changes would accompany the proposed conversion of the undeveloped portions of the Project site with roadway connections, 730 homes, private recreational facilities, and an extensive greenbelt and trail system. These proposed uses would include volumes of solid waste, generation and the conversion of natural open space areas that have significant biological habitat

value to residential land uses. It is not likely that the existing environmental conditions could be restored to their original condition after Project development. However, with the exception of impacts to Transportation and Air Quality, mitigation measures are proposed through **Section 4 – Environmental Impacts** of this EIR to minimize the effects of the potential development impacts to a less than significant level.

No unique hazards are found on the Project site, nor does the Project site contain any uniquely hazardous uses. The Project site is located within a seismically active region and would be exposed to ground shaking in the event of a seismic event. Conformance with the regulatory provisions of the City of Palmdale and the Unified Development Code pertaining to construction standards would minimize, to the extent feasible, damage and injuries in the event of such an occurrence. Geotechnical hazards can be mitigated by stabilization, removal, or redesign, and no significant impacts on the Project site are expected.

Uses proposed by the Project would be expected to use and store chemicals and/or substances, which are typically found in such residential settings. Given the multitude of Federal, State, and local regulations governing the use of such substances, Project development is not expected to involve activities that would damage the environment or pose a risk to public health.

Project development will assist the City of Palmdale in providing needed housing to accommodate its projected Regional Housing Needs Assessment requirements. Project development and operation will provide employment opportunities for contractors and laborers developing the Project and for maintenance personnel employed during Project operation. It can be anticipated that a portion of the new jobs will be filled by residents of nearby unincorporated areas, residents of Palmdale, and nearby cities. Therefore, the Project benefits would outweigh the proposed consumption of resources.

5.3 GROWTH-INDUCING IMPACTS

CEQA requires a discussion about ways the Project may be growth-inducing. *CEQA Guidelines* (Section 15126.2(d)) identifies a project as growth inducing if it would foster economic or population growth, or construction of additional housing, either directly or indirectly, in the surrounding environment. New residential populations and new employees equate to direct forms of growth, which have a secondary effect of expanding the size of local markets and inducing additional economic activity in the Project area.

Section 15126 of CEQA Guidelines identifies criteria for evaluating the extent to which growth could be induced, accelerated, intensified, or shifted as a result of the Project. Subsection C provides the framework for a discussion of these potential growth-inducing impacts, as follows:

- Would the project foster economic or population growth or the construction of additional housing either directly or indirectly, in the surrounding environment?
- Would the project remove obstacles to population growth?
- Would the project tax existing community facilities?
- Would the project encourage and facilitate other activities that could significantly affect the environment, whether individually or cumulatively?

Pursuant to CEQA Guidelines Section 15126.2(e), it must not be assumed that growth in any area is necessarily beneficial, detrimental, or of little significance to the environment.

The Project would develop approximately 483 acres of the approximately 878.1-acre property with 730 dwelling units, including single-family residences, equestrian estate lots, large rural lots, and up to 29

addition single-family detached or multi-family residential units.

Assuming a 3.60 persons per household ratio (as indicated in the City 2021-2029 Housing Element), Project buildout of 730 dwelling units would generate a population of approximately 2,628 persons.

Furthermore, the City of Palmdale is proposing to annex the entire Project site and adjacent parcels to the north, south, east and west of the Project site consistent with the City Sphere of Influence boundary, as shown on previous **Exhibit 2-3 (Annexation Boundary)**. The proposed annexation boundary currently includes 211 assessor parcels (53 parcels within the Project site and 158 additional parcels within unincorporated Los Angeles County jurisdiction) that occupy a total of approximately 1,310 acres. Some of the off-site parcels are developed as existing residential; some are vacant land. No zone change is proposed on these off-site parcels as part of the Project.

As previously discussed, Project development also would assist the City of Palmdale in providing needed housing to accommodate its projected Regional Housing Needs Assessment (RHNA) requirements. In addition to the proposed residential development, the Project area would support retail and commercial uses, municipal, civic, and public services. The small amount of additional employment associated with these proposed uses, combined with the residential growth in the Project area, is not expected to substantially alter the existing condition of the area's jobs/housing balance. Because the Project comprises primarily residential uses on land zoned for residential use, it would not induce substantial population growth.

Annexation Areas

The Project site is not contiguous with the City of Palmdale's corporate boundary although the City owns Avenue S, which is directly adjacent to the Project site. The City of Palmdale is proposing to annex the entire Project site and adjacent surrounding parcels, all within the City's Sphere of Influence boundary. The inclusion of areas outside of the Project boundary (including the Falcon Glen project currently in process), establishes a block of area that is contiguous to the City of Palmdale's corporate boundary. The proposed annexation boundary currently includes 211 assessor parcels (53 parcels within the Project site and 158 additional parcels within unincorporated LA County) that occupy a total of approximately 1,310 acres.

Exhibit 2-3 (Annexation Boundary) depicts the proposed Annexation Boundary which includes not only Falcon Glen, a project in process with the City of Palmdale, but also other parcels bordering and near to the Quail Valley Project site. Non-Quail Valley parcels within the Annexation area include vacant land and parcels with existing homes.

Exhibits 2-3A through 2-3D depict several potential annexation area boundary alternatives that LAFCO may consider in its deliberation about determination of the final Annexation area boundary, which mainly affect the northwest area bounding the existing City of Palmdale boundary and Project site boundary. **Exhibit 1-5 (Annexation Boundary)** in the Planned Development document and **Exhibit 2-3 (Annexation Boundary)** in this environmental impact report depict an Annexation area briefly analyzed in topical areas most relevant to LAFCO in this environmental impact report. A reduction in the Annexation area arising from LAFCO's final decision would necessarily result in fewer, or less substantial environmental impacts.

The largest single portion of the non-Quail Valley Project site annexation area is comprised of the approximate 162.45-acre Falcon Glen project site, which is located in unincorporated Los Angeles County northerly of the Quail Valley Project site, across Avenue S. The Falcon Glen Assessor's Parcel Numbers

are 3004-014-001, 004, 005, 008, 009, 012, 018, and 3004-014-023 through 031. The City has established pre-zoning for the Falcon Glen project site, as depicted on the City Zoning Map (June 29, 2023). The City also has established a General Plan Land Use designation and a pre-zoning designation of Single Family Residential 3 (SFR 3) for Falcon Glen. The zoning designation is intended for detached single-family subdivisions containing the City's standard 7,000 square foot minimum lot size, though other lot configurations are possible under the City's zoning code. These designations would allow a maximum 975 dwelling units for Falcon Glen, and would yield approximately 3,510 new residents. The Falcon Glen project area is currently undergoing a separate discretionary project approval process. The environmental impacts of that project would be addressed as part of that project review. The Falcon Glen project area is currently vacant land.

As indicated in this environmental document, the level of environmental impacts that would accompany annexation of the non-Quail Valley Project site properties (Falcon Glen and other properties) depicted in Exhibits 2-3A through 2-3D would largely depend on the whole of the annexation areas LAFCO determines acceptable for annexation. The following Alternatives Analysis thereby is focused to comparisons of alternatives to the Quail Valley Project proposal with the Preferred Project.

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6.0 Project Alternatives

6.1 INTRODUCTION

Under CEQA, identification and analysis of alternatives to a project is a fundamental part of the environmental review process. Public Resources Code Section 21002.1(a) establishes the need to address alternatives in an EIR by stating that in addition to determining a project's significant environmental impacts and indicating potential means of mitigating or avoiding those impacts, "the purpose of an environmental impact report is . . . to identify alternatives to the project."

CEQA Guidelines provides direction about the definition of project alternatives as follows: "An EIR shall describe a range of reasonable alternatives to the project, or to the location of the project, which would feasibly attain most of the basic objectives of the project but would avoid or substantially lessen any of the significant effects of the project, and evaluate the comparative merits of the alternatives."

The *CEQA Guidelines* (Section 15126(b)) emphasize that selection of project alternatives be based primarily on the ability to reduce significant effects relative to the proposed project, "even if these alternatives would impede to some degree the attainment of the project objectives, or would be more costly." The *CEQA Guidelines* further direct that the range of alternatives be guided by a "rule of reason," such that only those alternatives necessary to permit a reasoned choice are addressed.

6.2 ALTERNATIVES CONSIDERED AND REJECTED

In selecting project alternatives for analysis, potential alternatives must pass a test of feasibility. Section 15126.6(f)(1) of the *CEQA Guidelines* states that - -

Among the factors that may be taken into account when addressing the feasibility of alternatives are site suitability, economic viability, availability of infrastructure, general plan consistency, other plans or regulatory limitations, jurisdictional boundaries, and whether the proponent can reasonably acquire, control or otherwise have access to the alternative site. . .

Beyond these factors, *CEQA Guidelines* require the analysis of a "No Project" Alternative and an evaluation of Alternative location(s) for the project, if feasible. Based on the alternatives analysis, an environmentally superior alternative is to be designated as such. If the environmentally superior alternative is the No Project Alternative, then the EIR shall identify an environmentally superior alternative among the other alternatives (Section 15126.6(e)(2)). In addition, *CEQA Guidelines* Section 15126.6(c) requires that an EIR identify any alternatives that were considered for analysis but rejected as infeasible and discuss reasons for their rejection.

The range of feasible alternatives shall be selected and discussed in a manner that fosters meaningful public participation and informed decision making. The range of potential alternatives to the Project also shall include those that could feasibly accomplish most of the basic Project Objectives and that could avoid or substantially lessen one or more of the significant effects. Among factors that may be considered when addressing feasibility of alternatives are site suitability, economic viability, availability of infrastructure, General Plan consistency, other plans or regulations, jurisdictional boundaries, and whether the Project

proponent can reasonably acquire, control or otherwise have access to an alternative site (or the alternative site already is owned by the Project proponent). Only locations that would avoid or substantially lessen any of the Project's significant effects need be considered for inclusion. A project alternative whose effect cannot be reasonably ascertained and whose implementation is remote and speculative need not be considered. In addition, only those impacts found significant and unavoidable are relevant in making the final determination of whether an alternative is environmentally superior or inferior to the Project.

Throughout the following analysis, the impacts of Project Alternatives are analyzed for each environmental issue area that is examined in Section 4 of this Draft EIR. Thereby, each Project Alternative can be compared to the Project on an issue-by-issue basis. **Table 6-1 (Comparison of Project Alternatives)** provides an overview of Alternatives analyzed and a comparison of each Alternative's impact in relation to the Project.

This Section also identifies Project Alternatives the Lead Agency considered but rejected as infeasible during the scoping process.

Among the factors that eliminated alternatives from detailed consideration are the following: failure to meet most of the basic Project Objectives; infeasibility; or, inability to avoid significant environmental impacts. An EIR is required to identify any alternatives considered by the Lead Agency but rejected as infeasible.

The following Project Alternative was considered and rejected as infeasible, as summarized below.

Alternative Sites Alternative

CEQA does not require an analysis of alternative sites always be included in an EIR. However, if the surrounding circumstances make it reasonable to consider an alternative site then this alternative should be considered and analyzed in the EIR. In considering whether to include or exclude analysis of an alternative site, the "key question and first step in analysis is whether any of the significant effects of the project would be avoided or substantially lessened by putting the project in another location. Only locations that would avoid or substantially lessen any of the significant effects of the project need to be considered for inclusion in the EIR" (*CEQA Guidelines* Section 15126.6(f)(2)).

Area A comprises the development portion of the Project and encompasses the Project's residential subdivision map (Tentative Tract Map 65813). The central and northern portions of Area A consist of lowland foothills dominated by big sagebrush scrub, rabbitbrush scrub, Mojave mixed woody scrub, non-native vegetation and disturbed/developed areas. Area B is the adjoining southern property that occupies approximately 210 acres and contains a major portion of the natural grade that forms the backdrop of Palmdale's southern skyline. Area B is situated in higher elevations of foothills that include a portion of the ridgeline of the Sierra Pelona Mountains. **Exhibit 2-8 (Planning Areas)** depicts Area A and Area B.

The Project site currently is vacant and crossed by a series of dirt roadways. In July, 2005 a wildfire burned approximately 375 acres in the central and southern portions of the Project site, which removed a significant amount of native and non-native vegetation on that portion of the property. Much of this vegetation has re-established. The Project site contains numerous easements. The majority of the easements involve power poles, pole lines and utility easements and associated ingress and egress rights for public utilities. Easements affecting the northwest edge of the Project site near Avenue S include the following: an easement related to the improvement of Avenue S (the Anaverde easement); a Southern California Gas Company easement; a City of Los Angeles easement; a County of Los Angeles easement; and, a SCE

easement. A segment of Avenue S currently is constructed over a portion of the Project site that will be dedicated to the City of Palmdale together with other required expansions of the adjacent public right-of-way for Avenue S. Various easements that extend off the Project site include the following: City of Los Angeles easements; SCE easements; and, Sagebrush easements. Refer to **Exhibit 2-5 (Site Plan)**, which depicts the easements on the Project site.

No buildings, man-made structures/facilities, or other discernable man-made features exist on the Project site. Based on review of aerial photography, Palmdale 2045, and the Los Angeles County General Plan, there are no other available properties in the Project vicinity of similar size, physical characteristics, and accessibility to the regional commercial and retail facilities that the Project Applicant has the reasonable possibility of controlling and that would have fewer developmental and environmental constraints than the Project site evaluated in the EIR. In addition, development of the Project in an alternative location would result in similar impacts as would Project development and operation in the preferred location. For these reasons, an alternative sites analysis is not required.

Alternatives Analysis

The following narrative compares impacts of each Project Alternative considered by the Lead Agency with impacts of the Project (as disclosed in Section 4 of this EIR). A conclusion is provided for each topic analyzed pertaining to whether the Alternative results in one of the following: (1) reduction of elimination of the Project impact; (2) a greater impact than would occur under the Project; (3) the same impact as the Project; or, (4) a new impact in addition to the Project's impacts. As identified in **Section 2.4: Project Goals and Objectives** of this EIR, the Project's basic Objectives are the following.

- To build a residential community in compliance with Palmdale 2045 goals and policies and City of Palmdale Municipal Code design and safety requirements.
- To provide housing opportunities that will expand and enhance the City of Palmdale's housing stock, help fulfill the City's need to meet its regional housing goals.
- To make efficient use of undeveloped property zoned for residential use in the Palmdale area by providing additional and varied housing opportunities for new residents.
- To maintain the integrity of the nearby single-family residential neighborhoods through quality contemporary design, appropriate structural setbacks, architectural treatments, grading techniques, and building color palette.
- To provide extensive open space and recreational opportunities on-site that exceeds the City of Palmdale's Park and Open Space requirement.
- To encourage walking and bicycling by incorporating comprehensive trails on-site with direct access to the Regional Antelope Valley Backbone Trail system and future trails within the City of Palmdale.
- To minimize the impact to the existing environment and natural landforms to the maximum extent feasible.
- To preserve hillsides and mountain vistas pursuant to the City of Palmdale's Hillside Management Ordinance.
- To design and build a Project that respects the natural biotic communities on the Project site.
- To build a Project that respects and sustains the rich aesthetic beauty of the Project site and Project site vicinity.
- To build a Project that contributes to the City of Palmdale's tax revenue.

6.2.1 NO DEVELOPMENT/NO PROJECT ALTERNATIVE

In accordance with *CEQA Guidelines* (Section 15126.6(e)(2), “the no project analysis shall discuss the existing conditions . . . as well as what would be reasonably expected to occur in the foreseeable future if the project were not approved, based on current plans and consistent with available infrastructure and community services.” In addition, *CEQA Guidelines* (Section 15126.6(e)(3)(B) states that “in certain instances, the no project alternative means ‘no build’ wherein the existing environmental setting is maintained.” The No Development/No Project Alternative includes a discussion and analysis of existing baseline conditions at the time the Notice of Preparation was published (October 26, 2018). The No Development/No Project Alternative is described and analyzed to enable decision-makers to compare impacts of approving the Project with impacts of not approving the Project.

Description of Alternative

The No Development/No Project Alternative considers no additional development on the Project site other than that which would occur under existing conditions. The entire approximately 878.1-acre Project site would remain vacant and undeveloped. Under this alternative, no improvements would be made on the Project site. Implementation of the No Development/No Project Alternative would result in no physical environmental impacts beyond those that historically have occurred on the Project site. All significant effects of Project development and operation would be avoided or lessened by selection of this Alternative. The No Development/No Project Alternative would not meet the Project Objectives, although it would maintain the integrity of the surrounding single-family residential neighborhood and the natural condition of the Project site.

Impact Comparison to the Preferred Project (Project)*Aesthetics*

The approximately 878.1-acre Project site does not contain any unique aesthetic resources. The higher elevations of the Project site within Area B serve as a prominent scenic vista will remain undeveloped. The Project site currently is vacant and crossed by a series of dirt roadways. In July, 2005 a wildfire burned approximately 375 acres in the central and southern portions of the Project site, which removed a significant amount of native and non-native vegetation on that portion of the property. Much of this vegetation has re-established. The Project site contains numerous easements. The majority of the easements involve power poles, pole lines and utility easements and associated ingress and egress rights for public utilities. It is bounded by single-family residential development across Avenue S to the north and northwest, by single family residential to the east across Tovey Avenue to the south, and by vacant land to the south and west. Under the No Development/No Project Alternative, the visual character and quality of the site would be maintained in its existing status. No structures or landscaping would be introduced on the site.

Development of the Project site with the proposed 730 single-family residential units, recreation facility, trails system, introduced landscaping, and attendant improvements would create a cohesive Project that would occupy the entire property. The No Development/No Project Alternative would result in a lesser long-term impact pertaining to Aesthetics than would the Project.

Agriculture and Forestry Resources

The No Development/No Project Alternative would result in an equal impact to Agriculture and Forestry

Resources as would the Project in that the site would remain vacant and unused for agriculture and forestry purposes.

Air Quality

The No Development/No Project Alternative would result in no short-term construction activities or long-term Project operational activities that have the potential to result in emissions of air pollutants or odors. Under this Alternative, there would be no impacts to Air Quality due to emissions of criteria pollutants, exposure of sensitive receptors to substantial pollutant concentrations, or to creation of objectionable odors. Selection of this Alternative would avoid all the Project's short-term and long-term air quality impacts.

Biological Resources

The No Development/No Project Alternative would result in the Project site remaining in its present state. No grading would occur. Thereby, there would be no impacts to vegetation or wildlife species that may be present or use the Project site. The No Development/No Project Alternative would avoid all the Project's potential impacts to Biological Resources.

Cultural Resources

The No Development/No Project Alternative would leave the Project site in its existing vacant condition. No grading would occur and there would be no resultant impacts to subsurface archaeological, paleontological, or tribal cultural resources that may be present beneath the ground surface. Therefore, selection of this Alternative would avoid all site disturbance on the Project site and any Project resultant impacts to Cultural Resources would not occur.

Energy

The No Development/No Project Alternative would result in less impact to Energy because no energy resources would be needed or used to enable Project development (grading and construction) or Project operation. The Project site would remain vacant and unused and thereby not require any additional Energy resources than are currently used to maintain the Project site in its present condition. There would be no Energy impacts with this Alternative.

Geology/Soils

The No Development/No Project Alternative would not result in any grading of the Project site but could see some fire protection measures on the Project site. Therefore, no impacts to Geology or Soils would occur with this Alternative. There would be no risk to humans or structures related to seismic ground shaking or geologic hazards with this Alternative because no structures would be built on the Project site. This alternative will continue to have the potential to release blowsand because of the periodic maintenance of the site, which the Project would eliminate. Selection of this Alternative would avoid Project less than significant impacts to Geology and Soils

Greenhouse Gas Emissions

The No Development/No Project Alternative would mean no grading, construction or operational impacts would occur on the Project site. Therefore, there would not be sources of near-term or long-term Greenhouse Gas Emissions and related impacts.

Hazards and Hazardous Materials

The No Development/No Project Alternative would not result in any impacts related to Hazards and Hazardous Materials. Potential removal of dry/dead vegetation that may pose a fire hazard could occur. The existing power lines would remain. Selection of the No Development/No Project Alternative would avoid Project's impacts related to Hazards and Hazardous Materials.

Hydrology/Water Quality

The No Development/No Project Alternative would not result in changes to existing on-site hydrology or drainage conditions. No stormwater improvement would be constructed. Rainwater would be discharged from the Project site as it occurs under existing conditions. Stormwater leaving the Project site under this Alternative would not be treated to minimize any potential waterborne pollutants to contain any sediment. This Alternative would maintain pervious ground surface. The Project would create more impervious surfaces; however, there is a reduction in off-site flows in the post-development condition with development of the Project compared to the No Project Alternative. Selection of the No Development/No Project Alternative would reduce Project impacts to Hydrology and Water Quality with the potential exception of sedimentation and flow quantity.

Land Use/Planning

The No Development/No Project Alternative would result in no grading or other development of the Project site. The Palmdale 2045 land use designations and Zoning designations for the 878.1-acre property would remain the same. Therefore, the Project site would remain vacant and undeveloped. Thereby, selection of the No Development/No Project Alternative would result in no impacts related to Land Use and Planning.

Mineral Resources

The No Development/No Project Alternative would result in an equal impact to Mineral Resources as would the Project in that the site would remain vacant and unused. No Mineral Resources have been known to occur on the site.

Noise

The No Development/No Project Alternative would not result in grading or construction activities on the Project site. Therefore, this Alternative would not generate any noise associated with Project development. Also, this Alternative would not result in generation of any vehicular traffic trips and thereby not contribute to an incremental increase in Noise impacts to the Project site vicinity. Selection of the No Development/No Project Alternative would avoid all the Project-associated Noise impacts.

Population and Housing

The No Development/No Project Alternative would not generate any housing and thereby not generate any added population. Therefore, the No Development/No Project Alternative level of impact to Population and Housing would be less than development and operation of the Project.

Public Services

The No Development/No Project Alternative would not generate any construction or operational activities on the 878.1-acre Project site. The property would remain in its vacant state. Thereby, no additional need for Public Services would occur with the No Development/No Project Alternative and the level of impact in comparison with the Project would be less.

Recreation

The No Development/No Project Alternative would result in less impact pertaining to Recreation than would the Project in that the Project site would remain vacant and unused. However, there may occur trespassing by off-road vehicles as there has in the past.

Transportation

The No Development/No Project Alternative would leave the Project site vacant and undeveloped. No vehicular traffic would be generated. Therefore, the No Development/No Project Alternative would avoid all Project impacts to area roadways.

Tribal Cultural Resources

The No Development/No Project Alternative would leave the Project site in its existing vacant condition. No grading would occur and there would be no resultant impacts to the existing tribal cultural resource on the Project site or to subsurface tribal cultural resources that may be present beneath the ground surface. Therefore, selection of this Alternative would avoid all site disturbance on the Project site and any potential Project resultant impacts to Tribal Cultural Resources would not occur.

Utilities and Service Systems

The No Development/No Project Alternative would not necessitate any domestic water, sewer, or stormwater drainage facilities. There would be no demand for domestic water or wastewater treatment services. This Alternative also would not generate a demand for solid waste collection and disposal services. Selection of the No Development/No Project Alternative would avoid all Project demand placed on Utilities and Service Systems.

Wildfire

The No Development/No Project Alternative would leave the property vacant, with grassland and some trees and bushes in its southwesterly portion. The majority of the Project site is located within an August, 2018-identified CalFire-designated Very High Fire Hazard Safety Zone and within a State Responsibility Area. Portions of the Project site are located in a High Fire Hazard Safety Zone. Additionally, a Very High Fire Hazard Safety Zone is located adjacent to the Project site to the west, south of Avenue S. The No Development/No Project Alternative would not allow increased access, fire protection or suppression techniques to be placed on the Project site (although some fuel modification may be required). The No Project Alternative would not include construction of additional water reservoirs that would enhance the current hydraulic pump facilities currently in place in the adjoining development area. Therefore, the No Project Alternative would result in more danger pertaining to wildfire spreading across the 878.1-acre property and adjacent area, which accounts for a greater impact than the Project in relation to Wildfire.

Conclusion

The No Development/No Project Alternative would not satisfy the following Project Objectives.

- To build a residential community in compliance with Palmdale 2045 goals and policies and City of Palmdale Municipal Code design and safety requirements.
- To provide housing opportunities that will expand and enhance the City of Palmdale's housing stock and help fulfill the City's need to meet its regional housing goals.
- To make efficient use of undeveloped property zoned for residential use in the Palmdale area by providing additional and varied housing opportunities for new residents.
- To maintain the integrity of the nearby single-family residential neighborhoods through quality contemporary design, appropriate structural setbacks, architectural treatments, grading techniques, and building color palette.
- To provide extensive open space and recreational opportunities on-site that exceeds the City of Palmdale's Park and Open Space requirement.
- To encourage walking and bicycling by incorporating comprehensive trails on-site with direct access to the Los Angeles County Regional Trail system and future trails within the City of Palmdale.
- To design and build a Project that respects the natural biotic communities on the Project site.
- To build a Project that respects and sustains the rich aesthetic beauty of the Project site and Project site vicinity.
- To build a Project that contributes to the City of Palmdale's tax revenue.

6.2.2 *REDUCED PROJECT ALTERNATIVE*

Description of Alternative

The Reduced Project Alternative would be comprised of a smaller single-family residential project comprised of approximately 365 dwelling units; or, one-half the number of units of the Project. The Reduced Project Alternative could result in a reduction in development area, though a Reduced Project Alternative could utilize the same development envelope with larger sized lots. It is possible development of fewer units would occur within a shorter time frame than the noted 5- to 10-year timeframe for the desired Project. In addition, development of fewer residential units likely would mean fewer distinct product types and designs within the Project site. Less landscaping and fewer recreational opportunities would be included in the Reduced Project Alternative. Project design (grading and drainage scheme) would be modified from the Project.

Impact Comparison to the Preferred Project (Project)

Aesthetics

Development of the Reduced Project Alternative would result in a 50 percent reduction in number of residential units compared to the Project within Area A. However, it is possible that instead of clustered residential patterns there could be a more traditional subdivision design accompanying this Alternative. The portion of Area A that would be prepared for, and retain, development would be similar to the Project. Structural setbacks from Avenue S could remain as proposed, or be decreased to allow for larger residential lots. Views to and across the Project site would be similar to corresponding Project views. Short-term view impacts of the Project site during grading and construction would be similar to the respective short-term views under the Project. New residents, roadways, and a community recreation center would replace

natural habitat in Area A, as they would under the Project design. Under the Reduced Project Alternative, the amount of artificial light (residential light, roadway lighting, security lighting) that would be introduced on the Project site would be less than the Project. As indicated in the Aesthetics Section of this EIR, the Project site is not visible from at State-designated or locally-designated scenic highway. Therefore, neither the Project nor the Reduced Project Alternative would negatively impact a scenic highway. Potentially and dependent upon site design, the Reduced Project Alternative could result in less impact to trees and other habitats. Area B would remain undisturbed.

The Reduced Project Alternative and the Project would result in similar cumulatively considerable impacts to Aesthetics.

Agriculture and Forestry Resources

The Reduced Project Alternative would result in an equal impact to Agriculture and Forestry Resources as would the Project in that the Project site is not used for farmland purposes, is not zoned for agricultural use, and is not zoned for forest use. No Williamson Act land, Prime Farmland, or forest resources would be impacted by Project development. Therefore, there would be no impact to Agriculture and Forestry Resources resulting from implementation of the Reduced Project Alternative.

Air Quality

The Reduced Project Alternative will result in a reduced construction schedule when compared to that of the proposed Project due to the approximate 50 percent reduction in residences. Therefore, the total amount of air pollutant emissions generated during the construction phase would be reduced under the Reduced Project Alternative when compared to the Project. However, the day-to-day intensity of construction activities on the Project site would be similar for both this Alternative and the Project and thereby add daily emissions during the development phase (grading and construction). In addition, the Reduced Project Alternative would require Mitigation Measures to reduce short-term emissions of pollutants to less than significant levels.

The Reduced Project Alternative could generate approximately one-half the estimated daily traffic as would the Project and thereby could produce fewer operational-associated air pollutants than would the Project. In turn, the Reduced Project Alternative would generate less air pollutant emissions associated with diesel trucks than would the proposed Project.

The Reduced Project Alternative would generate odors during short-term construction activities and long-term operation. Similar to the Project, these odors would occur intermittently, be short-term in duration, and would not be substantial. Long-term odors also would be less than significant with implementation of the Reduced Project Alternative.

Emissions from grading during development of the Reduced Project Alternative will exceed the AVAQM Thresholds of Significance for NO_x in 2020. However, the Air Quality Assessment prepared for the Project states “Mitigation will reduce emissions, but not to the point that they will fall under the AVAQM’S thresholds. Therefore, construction emissions of NO_x exceed the AVAQM thresholds even after mitigation [and] short-term construction air quality impacts are significant and unavoidable.”

Project development would be considered to have a significant adverse air quality impact related to Oxides of Nitrogen. Project short-term impacts associated with Project grading could result in a significant and unavoidable impact pertaining to generation of Nitrogen Oxides in an amount that exceeds the AVAQM

Thresholds of Significance. The Reduced Project Alternative operational-source air pollutant emissions cumulatively would not have the potential to result in exceedance of regional AVAQMMD thresholds and therefore would not result in a cumulatively considerable impact.

Biological Resources

The development footprint within Area A of the Reduced Project Alternative would be similar to the corresponding Area A development footprint in the Project. The Reduced Project Alternative thereby would result in similar impacts to Biological Resources as would implementation of the Project. Similar Mitigation would be required and the impact to Biological Resources of the Reduced Project Alternative would be reduced to a less than significant level. In addition, cumulative impacts of the Reduced Project Alternative would be similar to those of the Project.

Cultural Resources

The development footprint within Area A of the Reduced Project Alternative would be similar to the corresponding Area A development footprint in the Project and would result in identical impacts to Cultural Resources as would implementation of the Project.

The Project site is considered sensitive for buried cultural resources because numerous prehistoric archaeological sites have been identified in the vicinity of the Project site and because of the past presence of several Native American tribal groups in the Project site vicinity. The potential for paleontological resources is low until grading exceeds 10 feet below the current ground surface. The potential level of impact and reduction of the level of impact of the Reduced Project Alternative and the Project are similar. Given this possibility, the potential impact of the Reduced Project Alternative development (grading) could be significant, but will be reduced to a less than significant level with implementation of Mitigation Measures. Reduced Project Alternative development and operation, as well as Project development and operation, would not contribute to a significant cumulative impact to prehistoric archaeological sites and/or resources.

Energy

The Reduced Project Alternative will result in less use of energy resources and of resources (e.g., water) whose provision is driven by electricity than would the proposed Project. Energy resources used during development (grading and construction) as well as such resources used during Reduced Project operation would be less and the resultant level of impact would be less than the corresponding level of impact of Project development and operation. Reduced Project Alternative development and operation, together with other development existing and potential in the vicinity of the Project site, is or will be required to comply with State of California and City of Palmdale laws and ordinances pertaining to energy consumption and conservation. Compliance will result in less than significant cumulatively considerable impacts pertaining to energy, as would the corresponding level of cumulative impact of the Project.

Geology/Soils

Development of the Reduced Project Alternative would disturb the same physical area as would the proposed Project. Potentially significant impacts of Reduced Project Alternative development that would require Mitigation would be similar to those identified for the Project. The Reduced Project Alternative would be required to comply with the same mandatory regulatory requirements of the City of Palmdale Hillside Management Ordinance as would the Project to preclude substantial hazardous impacts exposure

to persons and structures associated with ground shaking.

The Project development and operational impacts related to Geology and Soils are site specific in nature. As cumulative projects have been, and continue to be, constructed in accordance with City of Palmdale General Plan and Municipal Code requirements, additional residents and structures will be exposed to seismic hazards due to earthquakes. Other geotechnical constraints, such as landslides, expansive soils, and liquefaction may present hazards to cumulative development. However, the Quail Valley Project and each other development project is subject to, as a minimum, City-approved recommendations in site-specific geotechnical reports, uniform site development and construction standards relative to seismic and addressing other geologic conditions prevalent within the Project vicinity. Each development project would need to meet requirements of the approving agency and Uniform Building Code requirements as those requirements pertain to protection against known geologic hazards. Thereby, impacts of cumulative development would be less than significant.

Greenhouse Gas Emissions

The Reduced Project Alternative would reduce the number of residences by 50 percent and would be expected to require less energy to construct and operate them than would the Project. Thereby, there would be a reduction in non-mobile source Greenhouse Gas Emissions when compared to the Project. In addition, because the Reduced Project Alternative would result in fewer vehicle trips than would the Project, there would be a concomitant reduction in mobile source Greenhouse Gas Emissions. The cumulative impact of the Reduced Project Alternative also would contribute less to cumulative impacts that would the Project.

Hazards and Hazardous Materials

Implementation of the Reduced Project Alternative and the Project would not result in a significant impact related to Hazards or Hazardous Materials. The residential and landscaping components of a Reduced Project Alternative would also have the potential to handle or store hazardous household and landscaping materials as would the Project, although to a potentially lesser extent. With mandatory compliance with State and local standards, neither the Reduced Project Alternative nor the Project would pose a significant hazard to the public or the environment pertaining to use, handling, storage, and/or transport of hazardous materials on a project or cumulative basis.

Hydrology/Water Quality

The Reduced Project Alternative would likely require a similar developed envelope within Area A property as would the Project. Both the Reduced Project Alternative and the Project would not result in substantial alterations to the drainage pattern of the property or result in substantial erosion. Thereby, the Reduced Project Alternative and the Project would result in less than significant impacts to existing drainage patterns. Long-term impacts pertaining to Hydrology and Water Quality of the Reduced Project Alternative would be similar to those of the Project. Both the Reduced Project Alternative and the Project would be required to implement a long-term Water Quality Management Plan to ensure storm water leaving the property would not contain substantial pollutant concentrations. The Reduced Project Alternative and the Project would result in less than significant operational impacts to Hydrology and Water Quality as would the proposed Project. Both the Reduced Project Alternative and the Project would require installation of detention basins and a new drainage system on the Project site and would convey generated drainage in a similar manner. The Reduced Project Alternative would generate less drainage than would the Project.

Land Use/Planning

The Reduced Project Alternative would develop the property in accordance with the existing Palmdale 2045 land use designation. Therefore, the Reduced Project Alternative would not result in impact to Land Use and Planning. In both the Reduced Project Alternative and the Project, Area B would be preserved in its natural state. The contribution to a cumulative Land Use and Planning impact from a Reduced Project Alternative necessarily would be less than from development of the Project.

Mineral Resources

The Reduced Project Alternative would result in no impact to Mineral Resources to an equal extent as would the Project. The level of cumulative impact also would be identical.

Noise

Development of the Reduced Project Alternative would result in short-term noise impacts from grading and construction activities that, like the corresponding Noise impacts from Project development, would require mitigation to reduce the impacts to a less than significant level. In addition, the Reduced Project Alternative would result in long-term noise impact from Project operation as a residential community as would the Project. Types of daily construction activities associated with the Reduced Project Alternative would be similar to those activities associated with development of the proposed Project although the time associated with construction would be shortened under the Reduced Project Alternative because fewer residential units would be constructed. It also is anticipated duration of noise impacts during the building construction phase would decrease under the Reduced Project Alternative in comparison to noise impacts of the Project.

The Reduced Project Alternative and the Project are consistent with Policies enumerated in each element of Palmdale 2045 and as contained in this document. Furthermore, the cumulative noise impact of this particular Alternative and of the Project, in combination with the existing noise environment, is not significant in relation to the CEQA Thresholds of Significance. Construction noise would be temporary in nature (duration of construction schedule; days of construction; hours of construction; varied components of construction). Project cumulative operational long-term noise impacts to the existing ambient environment would not expose any sensitive receptors to significant high noise levels.

Population and Housing

The Reduced Project Alternative would generate half as many residences and fewer different housing opportunities for varied-income families. The Reduced Project Alternative also would generate approximately half the population that the Project would generate. Therefore, the Reduced Project Alternative cumulative level of impact to Population and Housing would be less than the Project cumulative impact.

Public Services

The Reduced Project Alternative, similar to the Project, would generate a decreased demand for law enforcement and fire/emergency service. The Reduced Project Alternative would generate fewer school-age children and less demand for library services than would the Project. Therefore, the Reduced Project Alternative level of impact on Public Services would be less than would the Project level of impact, as well as the level of cumulative impacts.

Recreation

The Reduced Project Alternative may not provide the same level of community recreation opportunities, including the public park, regional and local trails, as would the Project due to the cost to the developer(s) of providing such amenities. If recreational opportunities are not provided within the community, the Reduced Project Alternative demand for these opportunities and facilities could increase the impact on area-wide parks. Therefore, the Reduced Project Alternative may add to area-wide cumulative impacts related to Recreation.

Transportation

The Reduced Project Alternative would generate significantly fewer daily truck and vehicular trips than would the Project in both its development and operational stages. Selection of the Reduced Project Alternative would decrease the potential for direct and cumulatively considerable impacts to area intersections during the various studied traffic conditions and likely would generate fewer vehicle miles traveled. That is, it is likely the severity of impacts to area intersections and roadway segments would be decreased under the Reduced Project Alternative when compared to the Project impacts.

The Vehicle Miles Traveled (VMT) Analysis performed for the Project found, based on VMT Guidelines, that Project operation would result in a significant VMT impact and a significant cumulative VMT impact. The VMT impacts would be reduced with Reduced Project development of 365 dwelling units rather than the preferred Project's assignment of 730 dwelling unit. Due to Reduced Project VMT, the resultant level of impact would be reduced accordingly but could remain in excess of acceptable standards.

Tribal Cultural Resources

The Reduced Project Alternative would develop Area A in a manner and extent similar to the Project and thereby would result in identical impacts to Tribal Cultural Resources as would the Project. The Reduced Project Alternative would require similar mitigation as the Project and, after mitigation, both the Reduced Project Alternative and the proposed Project would result in less than significant impacts to Tribal Cultural Resources and a similar level of contribution to cumulative impacts to Tribal Cultural Resources.

Utilities and Service Systems

The Reduced Project Alternative would generate a lesser demand for water and sewer service and for solid waste collection service and disposal than would the Project. Both the Reduced Project Alternative and the Project would be required to comply with County regulations regarding waste recycling and water conservation. Therefore, like the Project, the Reduced Project Alternative level of impact on Utilities and Services would be less than significant on a project and cumulative basis.

Wildfire

The majority of the Project site is located within an August, 2018-identified CalFire-designated Very High Fire Hazard Safety Zone and within a State Responsibility Area. Portions of the Project site are located in a High Fire Hazard Safety Zone. Additionally, a Very High Fire Hazard Safety Zone is located adjacent to the Project site to the west, south of Avenue S. The Reduced Project Alternative and the Project would develop the majority of Area A. Impacts related to exposure to and danger from Wildfire would be similar in both the Reduced Project Alternative and the Project

The post-development danger from wildland fire will be lessened through development of the property in

either the Reduced Project Alternative or the Project. Reduced Project Alternative and Project development and operation will include components that reduce the danger of wildland fire on the Project site and thereby provide a positive benefit to the surrounding properties, some of which may be exposed to wildland fire. In addition, compliance with Palmdale 2045 policies, City of Palmdale Standard Conditions, with Los Angeles County Fire Department requirements, and with the City of Palmdale-approved Quail Valley Fuel Modification Plan required in the Mitigation Measure in the Draft EIR would contribute to ensuring any Project-related impacts to Project residents and residents of nearby developments related to Wildfire would be maintained at a less than significant level.

Conclusion

The Reduced Project Alternative would meet the following Project Objectives to a lesser degree than the Project.

- To provide housing opportunities that will expand and enhance the City of Palmdale’s housing stock and help fulfill the City’s need to meet its regional housing goals.
- To build a residential community in compliance with City of Palmdale General Plan goals and policies and City of Palmdale Municipal Code design and safety requirements.
- To make efficient use of undeveloped property zoned for residential use in the Palmdale area by providing additional and varied housing opportunities for new residents.
- To maintain the integrity of the nearby single-family residential neighborhoods through quality contemporary design, appropriate structural setbacks, architectural treatments, grading techniques, and building color palette.
- To provide extensive open space and recreational opportunities on-site that exceeds the City of Palmdale’s Park and Open Space requirement.
- To encourage walking and bicycling by incorporating comprehensive trails on-site with direct access to the Los Angeles County Regional Trail system and future trails within the City of Palmdale.
- To minimize the impact to the existing environment and natural landforms to the maximum extent feasible.
- To preserve hillsides and mountain vistas pursuant to the City of Palmdale’s Hillside Management Ordinance.
- To design and build a Project that respects the natural biotic communities on the Project site.
- To build a Project that respects and sustains the rich aesthetic beauty of the Project site and Project site vicinity.
- To build a Project that contributes to the City of Palmdale’s tax revenue.

6.3 ENVIRONMENTALLY SUPERIOR ALTERNATIVE

Table 6.1 below summarizes the comparative analysis (Less Impact; Same Impact; More Impact) presented above for the alternatives in comparison to the proposed Project. The Table demonstrates that the “No Project Alternative” is the superior environmental alternative. However, the “No Project Alternative” would not accomplish the following Project Objectives (as identified in Section 2 – “Project Description” of this EIR).

- To build a residential community in compliance with City of Palmdale General Plan goals and policies and City of Palmdale Municipal Code design and safety requirements.

- To provide housing opportunities that will expand and enhance the City of Palmdale's housing stock and help fulfill the City's need to meet its regional housing goals.
- To make efficient use of undeveloped property zoned for residential use in the Palmdale area by providing additional and varied housing opportunities for new residents.
- To maintain the integrity of the nearby single-family residential neighborhoods through quality contemporary design, appropriate structural setbacks, architectural treatments, grading techniques, and building color palette.
- To provide extensive open space and recreational opportunities on-site that exceeds the City of Palmdale's Park and Open Space requirement.
- To encourage walking and bicycling by incorporating comprehensive trails on-site with direct access to the Los Angeles County Regional Trail system and future trails within the City of Palmdale.
- To minimize the impact to the existing environment and natural landforms to the maximum extent feasible.
- To preserve hillsides and mountain vistas pursuant to the City of Palmdale's Hillside Management Ordinance.
- To design and build a Project that respects the natural biotic communities on the Project site.
- To build a Project that respects and sustains the rich aesthetic beauty of the Project site and Project site vicinity.
- To build a Project that contributes to the City of Palmdale's tax revenue.

Exhibit 6-1 – Comparison of Project Alternatives		
Topical Section	No Project Alternative	Reduced Project Alternative
Aesthetics	Less	Same
Agriculture and Forestry Resources	Same	Same
Air Quality	Less	Less
Biological Resources	Less	Less
Cultural Resources	Less	Same
Energy	Less	Less
Geology/Soils	Less	Less
Greenhouse Gas Emissions	Less	Less
Hazards and Hazardous Materials	Less	Same
Hydrology/Water Quality	Less	Same
Land Use/Planning	Less	Same
Mineral Resources	Same	Same
Noise	Less	Less
Population/Housing	Less	Less
Public Services	Less	Less
Recreation	Less	Same
Transportation	Less	Less
Tribal Cultural Resources	Less	Same
Utilities/Service Systems	Less	Less
Wildfire	More	Same

7.0 Effects Found Not to be Significant as Part of the Initial Study Process

CEQA Guidelines Section 15128 requires that an EIR:

“... contain a statement briefly indicating the reasons that various possible significant effects of a project were determined not to be significant and were therefore not discussed in detail in the EIR.”

An Initial Study was prepared for the Project and is included in the Appendices to this EIR. Through the Initial Study process, the City of Palmdale determined that the Project could potentially cause adverse effects and an EIR is required. The City determined certain environmental topics had no potential to be significantly impacted by Project development or operation, as concluded by the Project’s Initial Study. Therefore, these topical areas are not required to be discussed in **Section 4 (Environmental Analysis)** of this EIR. A brief summary of the environmental topics found not to be significant is presented below. However, in the interest of ensuring a more thorough document, this EIR contains brief discussions that pertain to these not significant topical areas. Although the following topical areas were determined in the Initial Study to result in “No Impact,” subsequent analysis indicated that the levels of impact may instead be found to be “Less Than Significant.” Therefore, only those topics determined to be of No Impact in the Initial Study and/or the Draft EIR, or, after more substantial analysis, in this EIR, are noted below. Furthermore, the topical analyses are based on Thresholds of Significance stipulated in the 2023 CEQA Guidelines.

AGRICULTURE AND FORESTRY RESOURCES

Threshold AG-1 **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.**

The Project site has no Prime Farmland, Unique Farmland or Farmland of Statewide importance as identified by the California State Department of Conservation. Therefore, Project development and operation will not result in converting such land to non-agricultural use. No impact will result.

Threshold AG-2 **Conflict with existing zoning for agricultural use, or a Williamson Act contract.**

The Project site is not designated for agricultural use or subject to a Williamson Act contract. Therefore, Project development and operation will not conflict with such zoning or contract. No impact will result.

Threshold AG-3 **Conflict with existing zoning for, or cause rezoning of forest land (as defined in Public Resources Code Section 12220(g)), timberland (as defined by Public Resources Code Section 4526), or timberland zoned Timberland Production (as defined by Govt. Code Section 51104(g)).**

The Project site is not zoned for forest land, timberland or timberland production. Therefore, Project development and operation will not conflict with such zoning/re-zoning. No impact will result.

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Effects Found Not to be Significant as Part of the Initial Study Process

Threshold AG-4 Result in the loss of forest land or conversion of forest land to non-forest use.

The Project site does not contain forest land. Therefore, Project development and operation will not result in loss of such land or conversion of forest land to non-forest use. No impact will result.

Threshold AG-5 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.

No agricultural uses or forest uses occur on the Project site. Project development and operation will not involve conversion of Farmland to agricultural use or conversion of forest land to non-forest use. No impact will result.

AIR QUALITY

Threshold AQ-6 Would the Project generate a violation of any ambient air quality standard when added to the local background?

No Impact.

The Air Quality Assessment for the Project indicates that while emissions will be generated during construction in excess of AVAQMD threshold criteria, “it is unlikely that short-term construction activities will increase the frequency or severity of existing air quality violations due to required compliance with AVAQMD Rules and Regulations. The proposed project will increase regional emissions, but will increase regional emissions by an amount less than the AVAQMD thresholds.”

The AVAQMD considers carbon monoxide as the best indicator pollutant for determining whether air quality violations would occur and is most directly related to an increase in traffic. Local air quality around intersections is considered a potential issue at intersections with a Level of Service (LOS) of D or worse. The City of Palmdale’s threshold criteria for traffic is defined as: traffic generated by a project will be considered significant if it will result in an intersection or roadway segment operating beyond LOS “D” or if it causes an increase in traffic volumes that is already operating at LOS “D” and beyond. The Traffic Impact Analysis conducted for the Project indicates that neither of these conditions occurs as a result of Project development or operation and does not identify any significant impact. As a result, carbon monoxide modeling was not performed for the Project. Local air pollutant concentrations would not be expected to approach ambient air quality concentration standards due to generated local traffic. An exceedance of the standards would be required for a significant impact to occur. Therefore, the Air Quality Assessment for the Project concludes that the project will not result in a local air quality impact.

Threshold AQ-7 Would the Project not conform with applicable attainment or maintenance plan(s)?

No Impact.

The Antelope Valley Air Quality Management Plan applies to the proposed Project. The purpose of a discussion of Project consistency with this applicable regional plan is to identify issues pertaining to consistency with assumptions and objectives of the Air Quality Management Plan and to discuss whether the Project would interfere with the region’s ability to comply with Federal and State air quality standards.

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The AVAQMD CEQA and Federal Conformity Guidelines (2016) defines project conformity as follows:

A project is non-conforming if it conflicts with or delays implementation of any applicable attainment or maintenance plan. A project is conforming if it complies with all applicable District rules and regulations, complies with all proposed control measures that are not yet adopted from the applicable plan(s), and is consistent with the growth forecasts in the applicable plan(s) (or is directly included in the applicable plan). Conformity with growth forecasts can be established by demonstrating that the project is consistent with the land use plan that was used to generate the growth forecast.

Although the Project site is located outside the City of Palmdale boundary, it is anticipated that the approximately 878.1-acre Project site will be annexed into the City. The City of Palmdale General Plan identifies the area adjacent to the Project site as “Specific Plan,” which contemplates comprehensive planned land uses, including commercial, industrial, residential, or a combination of land uses to be developed. There are two operative specific plans (Anaverde Nuevo and Ritter Ranch) in the Project site vicinity, both of which are residential master planned communities.

The Project is consistent with growth forecasts the AVAQMD used when composing its Air Quality Management Plan. Additionally, the Air Quality Assessment prepared for the Project states that, “while the project will generate a temporary increase in NO_x in 2020, the project is not expected to impact the AVAQMD’s goals of reaching federal attainment maintenance status in 2021.” As a result, no impact is expected.

BIOLOGICAL RESOURCES

Threshold BIO-3 **Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means.**

United States Army Corps of Engineers (Corps)

There are no “waters” of the U.S. on-site due to the isolation of the Mojave River. The Corps confirmed this determination in a correspondence dated September 29, 2005. The RWQCB, however, asserts jurisdiction over the State’s streams, lakes and rivers despite the lack of a federal jurisdiction and oversight responsibility. RWQCB jurisdiction nonetheless “mirrors” what would be the Corps-recognized “ordinary high-water mark” (OHWM) boundaries as though they applied.

Regional Water Quality Control Board (RWQCB)

Glenn Lukos Associates established the extent of impacts associated with waters of the State in an updated Jurisdictional Delineation Report dated August 28, 2017. The Project site contains four drainage systems, portions of which contain features displaying an OHWM. The OHWM is the measured extent the Corps generally uses to establish limits of jurisdiction. The OHWM is indicated by physical characteristics such as a clear, natural line impressed on the bank of a stream or drainage, shelving, changes in soil, scouring, and the hydrological emplacement of stream litter and other debris.

Approximately 0.6 acre of potential RWQCB jurisdictional area is present across the 878.1-acre Project site and 0.45 acre of that total would be affected by Project implementation. There are no wetlands

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Effects Found Not to be Significant as Part of the Initial Study Process

contained within any affected areas. Due to the absence of “waters” of the U.S., the RWQCB generally acknowledges that a Section 401 Water Quality Certification under the federal Clean Water Act will not be necessary. However, the state’s Porter Cologne Water Quality Act (Section 13260) requires that any entity which discharges “waste” into waters of the state has the obligation to obtain a Waste Discharge Permit. Impacts are not expected to be potentially significant with implementation of water quality control mitigation measures routinely required by the City, and any specific requirements contained in the Water Discharge Permit that would be obtained by the Applicant.

California Department of Fish and Wildlife (CDFW)

In accordance with Sections 1600-16-3 of the California Fish and Game Code, CDFW regulates all diversions, obstructions, or changes to the natural flow or bed, channel, or bank of any river, stream, or lake, which supports fish or wildlife.

CDFW jurisdiction across the approximately 878.1-acre property comprises approximately 2 acres, which GLA calculated is comprised of approximately 1.4 acres of riparian vegetation and the balance is either unvegetated or supports upland vegetation. The proposed Project would result in the loss of 9,002 linear feet of “streambed” which in total comprises approximately 0.5 acre of jurisdiction. GLA determined that no riparian vegetation would be affected with project implementation.

Therefore, project development and operation will not adversely affect federally protected wetlands. No impact to federally protected wetlands will result.

CULTURAL RESOURCES

Threshold CUL-1 Cause a substantial adverse change in the significance of a historical resource pursuant to [California Code of Regulations] Section 15064.5.

California Code of Regulations Section 15064.5(a) defines a “historical resource” as the following:

- A resource listed in, or determined to be eligible by the State Historical Resources Commission for listing in the California Register of Historical Resources;
- A resource included in a local register of historical resources, as defined in California Public Resources Code Section 5020.1(k) or identified as significant in a historical resource survey meeting requirement of Public Resources Code Section 5024.1(g), shall be presumed to be historically or culturally significant. Public agencies are required to treat any such resource as significant unless the preponderance of evidence demonstrates it is not historically or culturally significant; or,
- Any object, building, structure, size, area, place, record or manuscript that a lead agency determines to be historically significant or significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military or in cultural annals of California may be considered to be a historical resource, provided the lead agency’s determination is supported by substantial evidence in light of the entire record. In general, a resource shall be considered by the lead agency to be “historically significant” if the resource meets the criteria for listing on the California Register of Historic Places, including the following:
 - Is associated with events that have made a significant contribution to broad patterns of

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California history and cultural heritage;

- Is associated with lives of persons important to California's past;
- Embodies distinctive characteristics of a type, period, region or method of construction, or represents the work of an important creative individual, or possesses high artistic values; or,
- Has yielded, or may be likely to yield, information important in prehistory or history.

The City of Palmdale General Plan does not identify any historical resources on the Project site. Therefore, Project development and operation would not alter or destroy a historical resource as defined in Section 15064.5.

Cogstone indicates that "no historical built environment resources are present" on the Project site. Therefore, Project development and operation would not cause a substantial adverse change in the significance of a historical resource pursuant to California Code of Regulations Section 15064.5. No impact will result.

HAZARDS AND HAZARDOUS MATERIALS

Threshold HAZ -3 Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school.

No existing or proposed schools are located within one-quarter mile of the proposed Project. The nearest school is Anaverde Hills School, which is located over three-quarters of a mile northwest of the Project site. Therefore, Project development and operation would not emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school. No impact would result.

Threshold HAZ -5 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 result in a safety hazard for people residing or working in the project area.

The Project site is located approximately three miles southwest of the Palmdale Regional Airport. The Project site is located outside the Airport Influence Area (as well as outside the 70 and 65 CNEL contour areas). Therefore, the Project will not result in a safety hazard for people working in the Project area and no significant impact would occur.

LAND USE AND PLANNING

Threshold LU-2 Would the Project 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?

No Impact.

Effects Found Not to be Significant as Part of the Initial Study Process

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This EIR is intended to serve as the CEQA compliance document for all necessary approvals related to the development of the Project. The City of Palmdale has identified the following discretionary approvals associated with implementation of the proposed Project. Should the City of Palmdale approve Envision Palmdale 2045 prior to consideration of this Project, the proposed General Plan Amendment and Zone Change would be unnecessary.

- *Annexation to the City of Palmdale.* Proposed annexation to the City of Palmdale which currently includes 211 assessor parcels, 53 parcels of which are within the Quail Valley Project site. The entire annexation area occupies approximately 1,310 acres.
- *Planned Development.* A Planned Development is requested for the Project Area B to the development envelope within Area A. The approval of a Planned Development would also facilitate the clustering of the allowable units into smaller lot sizes in order to retain the maximum amount of open space in the Project. The overall development density would still be consistent with the proposed General Plan density limit of 0-2 dwelling units per acre for a portion of the property and LDR for the balance of the property. According to the Palmdale Municipal Code (Section 17.16.160) “Planned Development” shall mean the planning, construction or implementation and operation of any use or structure, or a combination of uses and structures, based on a comprehensive and complete design or plan treating the entire complex of land, structures, and uses as a single project. X.
- *Tentative Tract Map (Builder Map).* A tentative tract map (TTM 65813) is proposed for the subdivision of the property within Area A including the creation of a total of 730 single family residential lots, as well as lots for streets, common areas, a Community Recreation Facility, trails and open space.
- *Site Plan Review.* Design review and approval of the Community Recreation Facility site, water tanks, and pumping facilities will be necessary once more detailed plans and specifications are available.
- *Wastewater District Annexation and potential Sphere of Influence Amendment.* Annexation and potential Sphere of Influence Amendment of a portion of the Project site and adjacent land area to be included in the boundary of the Los Angeles County Sanitation District for wastewater services to the subject property.
- *Regional Water Quality Control Board (RWQCB) Permits.* Permits for the National Pollution Discharge Elimination System (NPDES) process, including a Storm Water Pollution Prevention Plan (SWPP).
- *Antelope Valley Air Quality Management District (AVAQMD) Permits.* Permits as needed for construction and operation of equipment, including grading.
- *City of Palmdale Permits.* Various permits and approvals for roadway, flood control, and other improvements are required.
- *Landscape Lighting & Maintenance District (LLMD) / Maintenance Districts.* Formation of a LLMD or annexation into existing maintenance districts through the City of Palmdale in order to create a long-term maintenance funding source for the trail system, public landscaping, drainage facilities and Avenue S parkways and medians.
- *Community Facilities District (CFD).* Formation of a proposed CFD through the City of Palmdale as a funding mechanism for the major public facilities and infrastructure required to serve the Project.

Effects Found Not to be Significant as Part of the Initial Study Process

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Annexation to an existing Palmdale School District Community Facilities District may occur.

MINERAL RESOURCES

Threshold MIN-1 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.

The closest mineral resource site is the Little Rock Creek Sector which is located approximately 8 miles east of the Project site. This Sector is designated Mineral Resource Zone – 2 (MRZ-2) which indicates that significant mineral deposits are present. However, the Project site itself does not have a known mineral resource nor is it zoned for any mineral resource extraction. Therefore, Project development would not result in the loss of availability of a known mineral resource that would be of value to the region or to residents of the State of California and there would be no impact.

Threshold MIN-2 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.

The Project site does not have any known mineral resources. Therefore, Project development will not result in the loss of availability of a locally-important mineral resource recovery site delineated on the City of Palmdale General Plan and there would be no impact.

NOISE

Threshold NOI-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?

The proposed Project site is not located within the vicinity of a private airstrip or an airport land use plan or within two miles of a public airport or public use airport. The Palmdale Regional Airport is three miles northeast of the Project site. Therefore, Project development and operation would not expose people residing or working in the Project area to excessive noise levels from airport use. No impact would result.

POPULATION AND HOUSING

Threshold POP-2 Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere.

The Project site is currently vacant with no existing homes on site. Therefore, Project development and operation would not result in displacing any people or housing. No impact would result.

RECREATION

Threshold REC-2 Include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment.

The proposed Project's 26.4-acre Quail Valley Public Park will include multiple recreation facilities including play areas, benches, play equipment, picnic tables, an amphitheater, dog parks, shade and gathering areas, a restroom, designated parking, passive areas, and exercise course, and other facilities. In addition, the project will include a component of the Antelope Valley Backbone Trail, a 12-foot-wide multi-purpose trail and adjacent sidewalk partially within the park and extending to Avenue S at the north, and into the hills at the southern end to provide eventual connection offsite by others.. The project includes a private HOA owned 3.2-acre Recreation Center that will include a community pool, spa, open play area with pickleball courts and bocce ball, children activity areas, and parking. Over five acres of semi-improved trails are designed for the southern hillsides providing additional exercise and hiking opportunities.

The extensive recreational facilities within the proposed Project will not have an adverse impact on the environment. The HOA Recreation Center is centrally located, the park and trails system, and the passive and active recreational amenities are part of the overall integral community design. The recreational facilities are in compliance with City General Plan requirements and would not require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment. Therefore, no significant impact is expected.

TRANSPORTATION AND TRAFFIC

Threshold TR-3 Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks.

Project development will not encroach into air traffic space nor result in any effects on demand for local air service or volumes of air traffic. The Palmdale Regional Airport is three miles northeast of the Project site. The private airstrip nearest the Project site is the Boron Airstrip, which is 45 miles northeast of the Project site. Project development will occur on property located outside general air traffic patterns and will not alter air traffic patterns. Therefore, no impact will result.

UTILITIES AND SERVICE SYSTEMS

Threshold UT-7 Conflict with federal, state, and local statutes and regulations related to solid waste.

Project development and operation will be required to comply with California Assembly Bill 939 (1989), which mandated that each County in the State must meet diversion goals of 25 percent by 1995 and 50 percent by 2000. In addition, AB 939 established an integrated framework for program implementation, solid waste planning and solid waste facility and landfill compliance.

Project development will also comply with the City of Palmdale Source Reduction and Recycling Element to its Solid Waste Management Plan, which requires a construction waste diversion rate of 65 percent. In addition, the Project will be required to comply with Title 24 and Title 20 of the California Code of Regulations. Title 24 contains California Building Standards, including the California Plumbing Code (Part 5) that promote water conservation. Title 20 of the Code addresses Public Utilities and Energy and includes appliance efficiency standards that promote water conservation. Waste Management also encourages Palmdale residents to drop off household hazardous wastes at the Antelope Valley Environmental Collection Center (AVECC). The AVECC serves the needs of Antelope Valley residents for free. Residents can dispose of household hazardous waste, such as paint, oil or batteries, and old electronics.

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Effects Found Not to be Significant as Part of the Initial Study Process

No impact pertaining to conflict with federal, State or City of Palmdale statutes and regulations related to solid waste would result from Project development or Project operation.

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Appendix A

General Plan Consistency Assessment

Goals and Policies Applicable to the Quail Valley Project

Following is an assessment of Project consistency with Palmdale 2045 Goals and Policies applicable to the Quail Valley Project.

LAND USE AND COMMUNITY DESIGN ELEMENT	
GOAL/POLICY	CONSISTENCY
GOAL LUD-1: Complete Neighborhoods where residents can reach daily amenities, local retail, services, parks, and public facilities within a short 20-minute walk.	CONSISTENT. The entire Project site will be connected by a combination of trail and public park as shown on Exhibit 4.16-3 (Amenity Plan) and Exhibit 4.16-4 (Conceptual Trail Plan) . Open turf areas allotted for play are located along the linear park where expansive flat areas occur. The 26.4-acre QV Public Park extends through the length of the Project site and has trail connections at the northern and southern edges of the Project site development envelope, with extending access along existing dirt roadways to the south. The trail element passing through the Project is a component of the extension of the Antelope Valley Backbone Trail Alignment and is available to the public. The 26.4-acre QV Public Park will also be entered through various neighborhood portals, and will contain over 13.1 acres of “active” use area, including turf play areas, a small amphitheater, benches, picnic tables, play structures, walkways and bridges, shade and gathering locations, a restroom, trash facilities, two dog parks, an extensive exercise course, and three ADA and EV dedicated parking lots, and an additional 118 designated parking spots specifically dedicated to park parking. There also are an additional 13.3 acres of other passive use areas within the QV Public Park.
Policy LUD-1.1: Balanced Land Uses. Maintain a balanced land use pattern to support a broad range of housing choices, retail businesses, employment opportunities, educational and cultural institutions, entertainment spaces, and other supportive uses within long-established Palmdale neighborhoods and new growth areas.	CONSISTENT. The Quail Valley Project is a residential project designed with five different lot sizes that will accommodate a broad range of housing types. The five lot sizes will have the following minimum areas: <ul style="list-style-type: none"> • 3,200 square feet; • 7,000 square feet; • 7,500 square feet; • 9,000 square feet; • 43,560 square feet; and, • 217,800 square feet. There is also a provision to allow clustered or attached housing in one of the development areas

LAND USE AND COMMUNITY DESIGN ELEMENT	
GOAL/POLICY	CONSISTENCY
Policy LUD-1.2: New Complete Neighborhoods. Facilitate the construction of new mixed-use neighborhoods that are well connected to services, transit, amenities, public buildings, and parks and recreational facilities.	CONSISTENT. As indicated above, The Quail Valley Project is designed as a residential community. In addition, Quail Valley will contain the QV Public Park and an extensive trail system that will be accessible not only to Quail Valley residents, but also to the greater Palmdale community because the Project roadways are public streets.
Policy LUD-1.5: Multimodal Connectivity. Promote walking to services, biking and transit use by requiring a high level of connectivity for pedestrians, bicycles, and vehicles in major developments (except where existing development or natural features prohibit connectivity). Seek to improve walk, bike, and transit travel within existing complete neighborhoods.	CONSISTENT. All recreation amenities and trails will be accessible to community residents. The Project includes bike trails on the internal street loop network. Access to the regional bicycle trail extending along Avenue S will be provided as part of Project development.
Policy LUD-1.6: Walkable Blocks. Create communities that address the needs of multiple age groups and physical abilities through short, walkable block lengths. Use grid-like or a modified grid street networks in newly developed areas (except where topography necessitates another street network layout).	NOT CONSISTENT. The Quail Valley Planned Development Plan demonstrates that future residential development within the approximate 878.1-acre Project site will be clustered along generally curved street systems. This design is in response to site topography and to requirements of the City of Palmdale Hillside Grading Ordinance, which encourages clustering residential development to minimize environmental impacts on site topography.
GOAL LUD-3: A City with high-quality services and facilities in all neighborhoods.	CONSISTENT. As demonstrated below, the Quail Valley Project will include provision of appropriately high-quality public services and facilities within the community.
Policy LUD-3.5: Infrastructure Capacity and Service. Ensure that there will be adequate water and wastewater system capacity to meet projected demand by continuing to oversee the development of adequate and dependable public services and facilities to support both existing and future development.	CONSISTENT. The Planned Development Plan (Section 5.0 – Infrastructure Plan) indicates the Palmdale Water District has determined it has sufficient available water to service the Project, as also indicated in the Water Supply Assessment prepared for the Project. The Water Supply Assessment states “... it is anticipated that existing supplies in combination with identified future and potential water supply opportunities will enable

LAND USE AND COMMUNITY DESIGN ELEMENT	
GOAL/POLICY	CONSISTENCY
	<p>PWD to meet all future water demands which includes the Quail Valley development.”</p> <p>Project development will include installation of water lines in the interior streets of Quail Valley (reference Exhibit 5-1 - <i>Water System Plan</i> in the Planned Development Plan and will connect to off-site water main lines at two points (with a potential for a third connection). The two points are at the primary entrance to the Project site at Avenue S and at the southeastern edge of the Project site. The potential third connection point may be built at Tovey Avenue, but is dependent on timing of other area improvements and loop requirements.</p>
<p>Policy LUD-3.6: Infrastructure Funding and Programs.</p> <p>Continue to implement comprehensive water and wastewater management programs and ensure that future developments pay their fair share for any infrastructure improvements demand necessary.</p>	<p>CONSISTENT. The City of Palmdale will require future Project developer(s) to remit appropriate fees for infrastructure improvements necessitated by Project development and operation. The City of Palmdale will determine the appropriate timing of fee payment.</p>
<p>GOAL LUD-4: High-quality architecture and site design in the renovation and construction of all buildings.</p>	<p>CONDITIONALLY CONSISTENT. Future developers of the Quail Valley Project will be required to submit building and architectural plans to the City of Palmdale for approval. City staff will review the submitted plans for compliance with the approved Planned Development Plan and other applicable City regulations and standards.</p>
<p>Policy LUD-4.1: Quality Construction.</p> <p>Use simple, urban building forms made with permanent materials with high-quality detailing that stands the test of time.</p>	<p>CONDITIONALLY CONSISTENT. Future developers of the Quail Valley Project will be required to submit building and architectural plans to the City of Palmdale for approval. City staff will review the submitted plans for compliance with the approved Planned Development Plan and other applicable City regulations and standards.</p>
<p>Policy LUD-4.3: Long-Lasting Building Materials. Convey façade articulation through the strength, depth, and permanence of building materials. Thinner cladding materials, such as</p>	<p>CONDITIONALLY CONSISTENT. Future development in Quail Valley will be made in compliance with State requirements (e.g., Title 24) and City regulations and standards confirmed during the Building Permit process.</p>

LAND USE AND COMMUNITY DESIGN ELEMENT	
GOAL/POLICY	CONSISTENCY
stucco, masonry veneers, and wood or simulated wood, may be used when finished to appear as durable and authentic as the materials they simulate.	
Policy LUD-4.8: Environmental Design. Design sites and buildings adjacent to natural areas with transparent design elements. Employ bird-safe design near habitat areas or migratory routes.	CONDITIONALLY CONSISTENT. Future developers will present building and architectural plans to the City of Palmdale for review and approval. Compliance with all City requirements, per the approved Planned Development Plan, will be attained.
Policy LUD-4.9: Public Streetscapes. Create pedestrian-oriented streetscapes by establishing unified street tree planting, sidewalk dimensions and maintenance, pedestrian amenities, and high-quality building frontages in all new development.	CONSISTENT. The Quail Valley community landscaping theme will be to establish a hierarchy of identifying landscape elements extending from the Project entry at Avenue S through Area A. Planting proposed for the overall Project, Project entries, and neighborhood entries will reflect a rural, high desert theme. The Quail Valley Planned Development Plan (Table 3-3) lists the Project plant palette. Street planting will include unified drought-tolerant, desert theme species, as listed in the Planned Development Plan. The Quail Valley Project contains an extensive pedestrian circulation and trail system that includes a full range of option. The 26.4-acre QV Public Park will provide a meandering 5-foot-wide sidewalk and 12-foot-wide multi-purpose trail that traverses the community and provides a convenient access to the centrally-located HOA Recreation Center via several neighborhood access points. Areas adjacent to the community sidewalks will be extensively landscaped with various plant and trees species selected from the community plant palette.
GOAL LUD-5: All new major development in the city is designed to support high-quality neighborhoods.	CONSISTENT. The Quail Valley Planned Development Plan contains development and design standards that will ensure all neighborhoods within the Quail Valley community will consist of high-quality construction designed residences, streetscapes, and landscaping.

LAND USE AND COMMUNITY DESIGN ELEMENT	
GOAL/POLICY	CONSISTENCY
<p>Policy LUD-5.1: New Complete Neighborhoods.</p> <p>Require new development to provide multiple amenities, a beautiful public realm, and be consistent with the City's vision for complete neighborhoods.</p>	<p>CONSISTENT. The Quail Valley Project will be a unique single-family residential community (730 total dwelling units) that will include the following, all of which will be accessible to community residents and the general public:</p> <ul style="list-style-type: none"> • A north/south 26.4-acre public park (QV Public Park) that will meander through the central portion of the community; • A multi-purpose trail system within the QV Public Park; • More than 13 acres of active park elements within the QV Public Park; and, • An extensive trail system for pedestrian, bicyclist, and riding uses.
<p>Policy LUD-5.2: Walkability of New Neighborhoods.</p> <p>Require all new neighborhoods to be pedestrian friendly by including features, such as short blocks, wide sidewalks, shaded streets, buildings that define and are oriented to streets or public spaces, traffic-calming features, convenient pedestrian street crossings, and safe streets designed for pedestrians, cyclists, and vehicles.</p>	<p>CONSISTENT. All Quail Valley neighborhoods within the 878.1-acre Project site will be pedestrian friendly. The primary access to the community via Avenue S will connect to a series of curvilinear streets and traffic-calming roundabouts that serve the community neighborhoods. The 26.4-acre QV Public Park will contain a multi-purpose trail system and an extensive trail system for pedestrian and bicyclist uses.</p>
<p>Policy LUD-5.3: Public Services in New Neighborhoods.</p> <p>Require new developments to be designed for and provided with adequate public services and infrastructure. Require that these public facilities and services be provided concurrently with development to ensure a high quality of life for residents.</p>	<p>CONSISTENT. The Los Angeles County Fire Department will provide fire protection and emergency services to the Quail Valley community and to the City of Palmdale. Five fire stations will provide these services. Design of the Quail Valley community will incorporate a comprehensive Fire Safety Plan for the community. This Plan will need Fire Department and City approval. The Los Angeles County Sheriff's Department contracts with the City of Palmdale to provide law enforcement services to the City.</p> <p>Quail Valley access points and internal roadways are designed in compliance with public street standards of the City of Palmdale and thereby will facilitate</p>

LAND USE AND COMMUNITY DESIGN ELEMENT	
GOAL/POLICY	CONSISTENCY
	<p>provision of Fire Department and Sheriff Department services.</p> <p>In addition, City-required Development Fees will ensure adequate provision of these and library service are made at adequate levels.</p>
<p>Policy LUD-5.5: Trail Networks. Provide new trails systems that connect to the regional system.</p>	<p>CONSISTENT. The Quail Valley Project will contain an extensive trail and pedestrian circulation system (as depicted on the PDP Conceptual Trail Plan) that includes a full range of trail options, from semi-improved trails along hillsides to the 12-foot-wide multi-use trail traversing the community. In addition, there will be an 8-foot-wide asphalt bike trail extending along Avenue S that will connect to the central multi-purpose trail as part of the regional Antelope Valley Backbone Trail.</p> <p>In addition, the 26.4-acre QV Public Park will provide a meandering 5-foot-wide sidewalk and 12-foot-wide multi-purpose trail that traverses the Quail Valley community and provides a convenient access to the Quail Valley Recreation Center.</p>
<p>Policy LUD-5.6: Character of New Housing. Provide a diversity of architectural styles; avoid entire blocks or neighborhoods with identical housing styles.</p>	<p>CONDITIONALLY CONSISTENT. Future developers of residences in Quail Valley will be required to comply with Quail Valley Planned Development Plan standards and design criteria. The future development will be regulated by City of Palmdale Planning Department staff as part of the tentative tract/discretionary review process.</p>
<p>Policy LUD-5.7: Natural Topography. To the greatest extent feasible, preserve natural topographic features during the planning and development process. Utilize physical advantages of the site to minimize visual impacts.</p>	<p>CONSISTENT. The Quail Valley Project site is comprised of two primary land areas. Area A occupies approximately 670 acres in the northerly portion of the Project site adjacent to Avenue S and will contain the developed portion of the community. Area B is comprised of approximately 210 acres in the higher elevations of the foothills to the ridgeline of the Sierra Pelona Mountains and will be preserved in its entirety as undisturbed by the Project. In this manner, a great portion of the natural topographic features of the Project site will be</p>

LAND USE AND COMMUNITY DESIGN ELEMENT	
GOAL/POLICY	CONSISTENCY
	preserved and attendant potential impacts to visual resources on the Project site will be avoided.
Policy LUD-5.8: Transfer of Development. Require clustered single family and multifamily development in less constrained areas, transferring density from areas constrained by seismic, drainage, rights-of-way, or other conditions based on technical studies.	CONSISTENT. The Quail Valley Planned Development Plan includes an entitlement request to transfer the total General Plan/Zoning Code allowable residential density in Planning Area B to Planning Area A pursuant to the City's Hillside Management Ordinance. Although the proposed transfer of unit allowance is not compelled by seismic, drainage, rights-of-way, or other conditions identified in the technical studies prepared for the Project site/Project, the transfer would better enable a clustered residential development design in Planning Area A, would ensure preservation of hillsides on the overall Project site, and would preserve vistas of the mountains that are part of, and adjacent to, the Project site.
GOAL LUD-6: Pedestrian-oriented, human-scale and well-landscaped streets and civic spaces.	CONSISTENT. The Quail Valley PDP provides for extensive landscaping. The community landscaping will include landscaped traffic roundabouts, corner enhancements, entry features, greenbelts, trail amenities, and the QV Public Park and Quail Valley Recreation Center. In addition, greenbelt slopes will be planted with groundcover; slopes exceeding 15 feet in height will also be planted with trees and shrubs in compliance with City of Palmdale erosion control guidelines. The Quail Valley Public Park will be planted with plant species selected from the PDP plant palette, as approved by the City of Palmdale.
Policy LUD-6.1: Diversity of Housing Styles. Strongly encourage new subdivisions and master planned projects to include a diversity of housing types and architecture styles, where possible.	CONSISTENT. The Quail Valley Project is a residential project designed with five different lot sizes that will accommodate a broad range of housing types. The five lot sizes will have the following minimum areas: <ul style="list-style-type: none"> • 3,200 square feet; • 7,000 square feet; • 7,500 square feet; • 9,000 square feet; • 43,560 square feet; and,

LAND USE AND COMMUNITY DESIGN ELEMENT	
GOAL/POLICY	CONSISTENCY
	<ul style="list-style-type: none"> • 217,800 square feet. <p>There is also a provision to allow clustered or attached housing in one of the development areas</p>
<p>Policy LUD-6.4: Recreational Spaces. Improve existing parks and public spaces throughout the city to provide beautiful, comfortable, and inviting gathering spaces.</p>	<p>CONSISTENT. The entire Project site will be connected by a combination of trail and public park as shown on Exhibit 4.16-3 (Amenity Plan) and Exhibit 4.16-4 (Conceptual Trail Plan). Open turf areas allotted for play are located along the linear park where expansive flat areas occur. The 26.4-acre QV Public Park extends through the length of the Project site and has trail connections at the northern and southern edges of the Project site development envelope, with extending access along existing dirt roadways to the south. The trail element passing through the Project is a component of the extension of the Antelope Valley Backbone Trail and is available to the public. The 26.4-acre QV Public Park will also be entered through various neighborhood portals, and will contain over 13.1 acres of “active” use area, including turf play areas, a small amphitheater, benches, picnic tables, play structures, walkways and bridges, shade and gathering locations, a restroom, trash facilities, two dog parks, an extensive exercise course, and three ADA and EV dedicated parking lots, and an additional 118 designated parking spots specifically dedicated to park parking. There also are an additional 13.3 acres of other passive use areas within the QV Public Park.</p>
<p>Policy LUD-6.6: Ongoing Maintenance. Require project developers to establish mechanisms, such as a Community Facilities District, to adequately maintain new parks, recreational facilities, and infrastructure.</p>	<p>CONSISTENT. Financing of construction, operation, and maintenance of Quail Valley public improvements, public facilities, and public services will be via a combination of financing mechanisms such as the following:</p> <ul style="list-style-type: none"> • Private capital investment for facilities construction; • Community Facilities District established pursuant to the Mello-Roos Community Facilities Act of 1982, or other special

LAND USE AND COMMUNITY DESIGN ELEMENT	
GOAL/POLICY	CONSISTENCY
	<p>districts, to fund construction of a variety of public facilities, payment of impact fees, and provision of public services (including potential annexation into the Palmdale Schol District Community Facilities District; and/or,</p> <ul style="list-style-type: none"> • Private and public funding through application of fees collected as part of the Quail Valley Project, previous projects, and from other services. <p>Improvements within Quail Valley will be maintained via a combination of City, County of Los Angeles, special district, homeowners' association, private homeowner, and utility entities, as discussed in detail in the Quail Valley Planned Development Plan.</p>
GOAL LUD-7: Neighborhoods and streets that are safe and welcoming.	CONSISTENT. Quail Valley neighborhoods will have design characteristics (lighting; fencing) that will facilitate Project residents to maintain visual access to surrounding areas.
Policy LUD-7.2: Crime Prevention. Use Crime Prevention through Environmental Design strategies (CPTED) in new and existing development to improve public safety, including the following: <ul style="list-style-type: none"> • Active public space • Building design to promote “eyes on the street” • Clear delineation between private and public space • Natural access control between public and private space • Maintenance of public places • Removal or repair of vandalism or broken property 	CONSISTENT. Quail Valley will provide approximately 183 acres of open space in Area A (separate from the 210 acres of open space comprising Area B, a 26.4-acre public park (QV Public Park), and a 3.2-acre HOA Recreation Center that together will comprise active public spaces available to all community members and visitors to the community. Trail Portals are provided in the QV Public Park at street crossings to delineate interface between pedestrian and vehicular travel.
Policy LUD-20.3: Planned Developments.	CONSISTENT. The centrally located Quail Valley Public Park and HOA community Recreation Center will serve as the focal point for overall community

LAND USE AND COMMUNITY DESIGN ELEMENT	
GOAL/POLICY	CONSISTENCY
Encourage the creation of new Village Centers in Planned Development (PD) areas, including Quail Valley PD, Joshua Ranch PD, Aero PD, and The Strate PD.	identity. The Park and Recreation Center will contain facilities and opportunities for passive and active recreation for community members of all ages.
Policy LUD-21.2: Clustered Development. Require rural neighborhoods and clustered development in steeper and topographically constrained areas and use these development types to preserve significant natural amenities.	CONSISTENT. The Planned Development proposes a transfer of density from the steeper portions of the property into the flatter valley area. Twenty-eight of the proposed 730 dwellings are planned as future residential units (single-family, multi-family, or a combination of both) to be located on three lots south of the Recreation Center facility. These units will be constructed according to future market demand. The area for the 28 units initially will serve as a temporary debris and detention basin.
Policy LUD-21.3: Respecting Natural Ridges. Avoid grading or siting of dwelling units on the north facing side of Ritter Ridge or other major ridgelines.	CONSISTENT. The Quail Valley Planned Development Plan includes an entitlement request to transfer the total General Plan/Zoning Code allowable residential density in Planning Area B to Planning Area A. Although the proposed transfer of unit allowance is not compelled by seismic, drainage, rights-of-way, or other conditions identified in the technical studies prepared for the Project site/Project, the transfer would better enable a clustered residential development design in Planning Area A, would ensure preservation of hillsides on the overall Project site, and would preserve vistas of the mountains that are part of, and adjacent to, the Project site.
GOAL LUD-22: Neighborhoods with a range of housing opportunities that allow people of all ages, abilities, socio-economic status, and family size to live in Palmdale.	CONSISTENT. The varied lot sizes in Quail Valley will allow future developers to build dwellings of varied sizes that will provide a sufficient range of housing opportunities for all sizes of families.
Policy LUD-22.5: Varying Housing Types. Encourage and allow a variety of housing types developed at a range of densities to serve varying household types, including, but not limited to, single-family attached and detached, accessory dwelling units, multifamily apartments,	CONSISTENT. The Quail Valley Project is a residential project designed with five different lot sizes that will accommodate a broad range of housing types. The five lot sizes will have the following minimum areas: <ul style="list-style-type: none"> • 3,200 square feet; • 7,000 square feet; • 7,500 square feet;

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townhomes, duplexes, triplexes, quadplexes, and condominiums.	<ul style="list-style-type: none"> • 9,000 square feet; • 43,560 square feet; and, • 217,800 square feet. <p>There is also a provision to allow clustered or attached housing in one of the development areas</p>
<p>Policy LUD-23.1: Connections to Existing Neighborhoods. Provide pedestrian/bicycle connections to trails and open space where appropriate and indicated in past planning efforts.</p>	<p>CONSISTENT. Quail Valley will include an 8-foot-wide asphalt bicycle trail that will extend approximately 1,180 linear feet along Avenue S adjacent to the Project site. In addition, the meandering internal sidewalk within the QV Public Park will allow pedestrian movement separate from bicycle movement. The Project will include a decomposed granite trail separate from a curb adjacent pedestrian sidewalk that proceeds through the QV Public Park and a separate decomposed granite trail that surrounds the HOA Recreation Center circular area. The decomposed granite trail will extend parallel to the length of the circular perimeter.</p> <p>Inclusive of extensive bike trails on the internal loop road systems, Quail Valley will include more than 7 miles of new trails. The new trails will provide connections to existing dirt roadways extending from the Project site in multiple directions. Among the trails will be a component of the regional Antelope Valley Backbone Trail network that traverses the Project site in a north-south direction. Incorporation of the multi-purpose trail within the QV Public Park and incorporation of the northerly lower trail area adjacent to the entry roadway will provide an enhanced link to the County Regional Trail system. In addition, the one-acre rural lots in Planning Area 2 will have an 8-foot-wide private trail system that will connect to the 12-foot-wide multipurpose trail system within the QV Public Park. Furthermore 5-foot-wide semi-improved trails</p>

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	that will extend approximately 12,700 linear feet are planned for the upper portion of Area A.
Policy LUD-23.3: Connectivity Enhancements. Introduce new public trail systems that connect to the regional system through Capital Improvement Projects, private development projects and city/regional parks improvements.	CONSISTENT. Quail Valley will include an 8-foot-wide asphalt bicycle trail that will extend approximately 1,180 linear feet along Avenue S adjacent to the Project site. In addition, the meandering internal sidewalk within the QV Public Park will allow pedestrian movement separate from bicycle movement. The Project will include a decomposed granite trail separate from a curb adjacent pedestrian sidewalk that proceeds through the QV Public Park and a separate decomposed granite trail that surrounds the HOA Recreation Center circular area. The decomposed granite trail will extend parallel to the length of the circular perimeter.
GOAL LUD-24: Maintain the character of rural areas.	CONSISTENT. The overall residential density of the Quail Valley project will be 0.83 dwelling units per acre. Due to the proposed preservation of all Area B and a significant open space component in Area A, the development will be clustered so as to minimize development of a significant portion of the property; approximately 45 percent of the Project site will be retained as open space/preserved area. Within Area A, 51 residential lots will each occupy a minimum area of 43,560 square feet (1 acre) and 3 residential lots each will occupy a minimum area of 217,800 square feet (5 acres).
Policy LUD-24.1: Appropriate Densities. Avoid designating land for higher density uses where prevailing existing development patterns are rural residential with lot sizes of one acre or more.	CONSISTENT. The overall Project residential density of 878.1-acre Quail Valley is proposed to be 0.83 dwelling units per acre. However, since all future dwelling units will be constructed in Planning Area A (which is 670 acres in area), future build out of Planning Area A will accommodate a residential density of 1.09 dwelling units per acre. In consideration of the city's Hillside Management Ordinance, both densities are consistent with the existing Land Use and Pre-Zoning designations.
Policy LUD-24.3: Septic Requirements.	CONSISTENT. The future development on 54 large lots will be served by septic systems, all of

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Enforce Los Angeles County standards and requirements regarding septic systems.	which will be constructed according to Los Angeles County and City of Palmdale standards and requirements.
Policy LUD-24.6: Potential Annexation. Consider annexation as a last resort option and only as a logical extension of the City boundaries as neighboring properties are annexed and adjacent properties are developed. Before initiating annexation, evaluate the fiscal, infrastructural and land use impacts of proposed annexations to the City, as well as the desires of inhabitants within the areas to be annexed.	CONSISTENT. Although the Quail Valley Project site is within unincorporated Los Angeles County, the Project site is within City of Palmdale Sphere of Influence and will be annexed to the City of Palmdale. A Fiscal Impact Analysis is a component of the annexation process; infrastructure and land use impacts have been evaluated in the Project Environmental Impact Report. The 878.1-acre Project site is vacant.
CIRCULATION AND MOBILITY ELEMENT	
Policy CM-1.1: Roadway Design. Design and maintain the public right-of-way through a complete streets approach that facilitates safe, comfortable, and efficient travel for all roadway users.	CONSISTENT. The Quail Valley circulation/roadway network provides for vehicular travel on public roads. In addition, other modes of travel will be provided. Quail Valley will include an 8-foot-wide asphalt bicycle trail that will extend approximately 1,180 linear feet along Avenue S adjacent to the Project site. Bike trails are provided on the loop street road network. In addition, the meandering internal sidewalk within the QV Public Park will allow pedestrian movement separate from bicycle movement.
Policy CM-1.4: Speed Management. Include speed reducing elements along local and connector roadways and within all new private development projects.	CONSISTENT. The design and anticipated build out of Area A residential, including roundabouts, incorporate curvilinear roadways that suppress excessive traffic speeds.
Policy CM-2-8: Growth Management. Ensure that the cumulative and regional impacts of new development on the circulation system are mitigated to the extent feasible, concurrent with development. Concurrent shall mean that required facilities are installed as needed during various stages of development.	CONSISTENT. The Quail Valley Project Environmental Impact Report (EIR) contains detailed analyses of Project-generated traffic impacts. Levels of Service (LOS) for eleven area intersections. The EIR states that "...regarding the LOS for the existing year, For Build Year/Build Year Plus Cumulative, all intersections would operate at acceptable LOS in 2026 and would continue to do so with Project traffic added. By year 2035, all remaining intersections operating at

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	acceptable LOS will continue to do so in the future year with the addition of the Project and for the cumulative scenario.” Mitigation Measure MM-TR-1 implementation will require developer(s) remit appropriate and required fees to the City for infrastructure improvements.
Policy CM-4.3: Access to Parks and Open Space. Prioritize investments that expand access to Palmdale’s parks and trails and support physical activity.	CONSISTENT. Full resident and visitor access to QV Public Park and the onsite component of the Antelope Valley Backbone Trail element will be available, as depicted in the Planned Development Plan.
Policy CM-4.4: Neighborhood Streets. Create neighborhood streets that unify neighborhoods, reduce vehicle speeds, reduce barriers for people walking, biking, and riding transit, and provide connectivity to connector and regional routes.	CONSISTENT. The Quail Valley circulation/roadway network provides for vehicular travel on public roads. In addition, other modes of travel will be provided. Quail Valley will include an 8-foot-wide asphalt bicycle trail that will extend approximately 1,180 linear feet along Avenue S adjacent to the Project site. Bike trails are also provided on the internal loop road network. In addition, the meandering internal sidewalk within the QV Public Park will allow pedestrian movement separate from bicycle movement.
Policy CM-4.6: Lighting. Provide human scale lighting along pedestrian thoroughfares, in commercial districts, on trails, and at transit stops.	CONSISTENT. Public spaces, including the extensive trail system, will be lighted according to a Lighting Plan to be approved by the City of Palmdale prior to issuance of Building Permits.
Policy CM-6.1: Vehicle Miles Traveled. Prioritize transportation investments and strategies that create opportunities for residents to reduce Vehicle Miles Traveled.	NOT CONSISTENT. Although the Quail Valley Planned Development Plan includes strategies for Vehicle Miles Traveled reduction that involve a robust pedestrian network and bicycle trails and paths, the Quail Valley Environmental Impact Report indicates that Project-generated Vehicle Miles Traveled will remain a Significant and Unavoidable Impact after full Project build out and Project operation and after implementation of identified Mitigation. The Traffic Analysis prepared for the Project nevertheless addresses the following potentially feasible Mitigation Measures pertaining to Vehicle Miles Traveled impacts from Project operation:

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	<ul style="list-style-type: none"> Changing the Project land use – this is considered infeasible for the following reasons: <ul style="list-style-type: none"> The Project site is zoned for residential use; The area closest to Avenue S, which would be the most likely location for commercial or other land uses, is located adjacent to existing residential development; The Project is located remotely from existing commercial or office commercial development centers; The Project has very limited frontage on Avenue S, which is comprised of a detention basin that is unable to be relocated; and, There is a major dual gas line easement extending along Avenue S that requires a greater setback from Avenue S. Implementing Transportation Demand Management (TDM) strategies – The Quail Valley Environmental Impact Report states as follows: “...project location, mitigation subcategory (e.g., commute trip reduction; neighborhood/site enhancement, etc.) and global maximum VMT reduction allowed by CAPCOA [California Air Pollution Control Offices Association] all limit what can be accomplished in the way of VMT mitigation. Even if all feasible TDM strategies in the CAPCOA Report were implemented by the Project, and the effectiveness of each such strategy were supported with substantial evidence, the maximum allowable reduction in Project VMT would be capped at 15 percent (global maximum for suburban projects), which is half of what is necessary to reduce the impact of Project VMT to a less than significant level.”

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	<ul style="list-style-type: none"> Adding off-site improvements – Types of improvements that could encourage a mode shift in Project trips to transit, bicycling, or walking could include extending or completing segments of bicycle lanes or sidewalk to provide connectivity. The Traffic Analysis prepared for the Project states that substantial evidence would be required to support the effectiveness of off-site improvements in reducing Project Vehicle Miles Traveled.
Policy CM-8.5: Residential Development. Require residential developments to contribute toward City programs to reduce vehicle trips.	CONSISTENT. Project developer(s) will be required to remit Development Impact Fees according to City of Palmdale requirements. The City will determine what Fees will be used to contribute toward City programs focused to reducing vehicle trips.
ECONOMIC DEVELOPMENT ELEMENT	
GOAL ED-5: Diversify housing options for residents at different stages of life and ability, to continue making Palmdale an affordable place to live.	CONSISTENT. Quail Valley will contain six different lot sizes that will accommodate a variety of housing types. The lot sizes are as follows: 3,200 square feet; 7,000 square feet; 7,500 square feet; 9,000 square feet; 43,560 square feet (one acre); and, 217,800 square feet (5 acres). There is also a provision to allow clustered or attached housing in one of the development areas. Housing design will be assessed by City staff at time of Building Permit review, but must comply with applicable Planned Development Plan criteria.
Policy ED-5.2: Supply and Diversity of Housing. Increase the supply and diversity of housing options to support different types of households including seniors, young adults, families, empty nesters, individuals or families with special needs, and multi-generational families.	CONSISTENT. The Quail Valley Project is a residential project designed with five different lot sizes that will accommodate a broad range of housing types. The five lot sizes will have the following minimum areas: <ul style="list-style-type: none"> 3,200 square feet; 7,000 square feet; 7,500 square feet; 9,000 square feet; 43,560 square feet; and, 217,800 square feet.

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	There is also a provision to allow clustered or attached housing in one of the development areas
MILITARY COMPATIBILITY ELEMENT	
No Goals or Policies of this Element relate directly to the Project	
EQUITABLE AND HEALTHY COMMUNITIES ELEMENT	
GOAL EHC-6: Promote neighborhoods with a range of housing opportunities that provide housing opportunities for people of all ages, abilities, socio-economic status, family structure and size.	CONSISTENT. Quail Valley will contain six different lot sizes that will accommodate a variety of housing types. The lot sizes are as follows: 3,200 square feet; 7,000 square feet; 7,500 square feet; 9,000 square feet; 43,560 square feet (one acre); and, 217,800 square feet (5 acres). There is also a provision to allow clustered or attached housing in one of the development areas. Housing design will be assessed by City staff at time of Building Permit review, but must comply with applicable Planned Development Plan criteria.
Policy EHC-6.2: Housing Diversity. Encourage a variety of housing types developed at a range of densities to serve varying household types, including, but not limited to, single-family attached and detached, accessory dwelling units, multi-family apartments, townhomes, duplexes, triplexes, quadplexes, and condominiums.	CONSISTENT. Quail Valley will contain six different lot sizes that will accommodate a variety of housing types. The lot sizes are as follows: 3,200 square feet; 7,000 square feet; 7,500 square feet; 9,000 square feet; 43,560 square feet (one acre); and, 217,800 square feet (5 acres). There is also a provision to allow clustered or attached housing in one of the development areas. Housing design will be assessed by City staff at time of Building Permit review, but must comply with applicable Planned Development Plan criteria.
Policy EHC-6.3: ADA Compliant Housing. Facilitate housing for older adults, special needs groups, including the developmentally disabled, and non-traditional family groups by allowing a diverse range of housing configurations that are Americans with Disabilities Act (ADA) compliant and flexible.	CONSISTENT. The Quail Valley Project is a residential project designed with five different lot sizes that will accommodate a broad range of housing types. The five lot sizes will have the following minimum areas: <ul style="list-style-type: none"> • 3,200 square feet; • 7,000 square feet; • 7,500 square feet; • 9,000 square feet; • 43,560 square feet; and, • 217,800 square feet. There is also a provision to allow clustered or attached housing in one of the development areas.

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GOAL EHC-7: A City that preserves and expands its supply of affordable housing.	CONDITIONALLY CONSISTENT. City staff will determine the number of Quail Valley dwelling units, if any, that must be affordable to low, very low and/or moderate-income households in a manner consistent with the City of Palmdale Housing Element.
Policy EHC-7.4: Affordability Period. Require that all units developed under any of the City affordable housing programs remain affordable for the longest possible time or at least 30 years.	CONDITIONALLY CONSISTENT. City staff will determine the duration of dwelling unit affordability, if any, in a manner consistent with the City of Palmdale Housing Element.
GOAL EHC-8: A City that encourages the construction and maintenance of safe, sanitary, and health-promoting housing.	CONSISTENT. Future developers of Quail Valley will provide housing that complies with State of California and City of Palmdale safety and sanitation requirements.
Goal EHC-10: Encourage neighborhoods with a range of opportunities to exercise, including parks and recreational facilities.	<p>CONSISTENT. Quail Valley will include an 8-foot-wide asphalt bicycle trail that will extend approximately 1,180 linear feet along Avenue S adjacent to the Project site. In addition, the meandering internal sidewalk within the QV Public Parkt will allow pedestrian movement separate from bicycle movement. The Project will include a decomposed granite trail separate from a curb adjacent pedestrian sidewalk that surrounds the central QV Public Park/HOA Recreation Center circular area. The decomposed granite trail will extend parallel to the length of the circular perimeter.</p> <p>Quail Valley will include more than 7 miles of new trails. The new trails will provide connections to existing dirt roadways extending from the Project site in multiple directions. The Project includes a component of the Antelope Valley Backbone Trail system that traverses the Project site in a north-south direction. Incorporation of the multi-purpose trail within the QV Public Park and incorporation of the northerly lower trail area adjacent to the entry roadway will provide an enhanced link to the County regional trails. In addition, the one-acre rural lots in Planning Area 2 will have an 8-foot-wide private</p>

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	unimproved trail system that will connect to the 12-foot-wide multipurpose trail system. Furthermore 5-foot-wide unimproved trails that will extend approximately 12,700 linear feet are planned for the upper portion of Area A.
<p>Policy EHC-10.1: Near-Universal Access to Recreation.</p> <p>Work toward a goal of having 90 percent of residents living within a 20-minute walking distance of a dedicated park, school, or multi-use trail.</p>	<p>CONSISTENT. The QV Public Park will be centrally located within Area A and thereby accessible for Project residents. The farthest residential lot from the QV Public Park will be within a 20-minute walking distance of the park and trails.</p> <p>CONSISTENT. Quail Valley will include an 8-foot-wide asphalt bicycle trail that will extend approximately 1,180 linear feet along Avenue S adjacent to the Project site. In addition, the meandering internal sidewalk within the QV Public Park will allow pedestrian movement separate from bicycle movement. The Project will include a decomposed granite trail separate from a curb adjacent pedestrian sidewalk that proceeds through the QV Public Park and a separate decomposed granite trail that surrounds the HOA Recreation Center circular area. The decomposed granite trail will extend parallel to the length of the circular perimeter.</p>
<p>Policy EHC-10.2: Access to Open Space.</p> <p>Plan for new parks and increase access to existing and future parks, trails, and open spaces, especially in disadvantaged communities.</p>	<p>CONSISTENT. The QV Public Park will be centrally located within Area A and thereby accessible for Project residents. The farthest residential lot from the QV Local Park will be within a 20-minute walking distance of all residential lots.</p> <p>CONSISTENT. Quail Valley will include an 8-foot-wide asphalt bicycle trail that will extend approximately 1,180 linear feet along Avenue S adjacent to the Project site. In addition, the meandering internal sidewalk within the QV Public Park will allow pedestrian movement separate from bicycle movement. The Project will include a decomposed granite trail separate from a curb</p>

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	adjacent pedestrian sidewalk that proceeds through the QV Public Park and a separate decomposed granite trail that surrounds the HOA Recreation Center circular area. The decomposed granite trail will extend parallel to the length of the circular perimeter.
GOAL EHC-11: Encourage neighborhoods that support safe pedestrian, bicycle, and public transit access for people of all ages, income levels, and cultural backgrounds.	CONSISTENT. Quail Valley will include an 8-foot-wide asphalt bicycle trail that will extend approximately 1,180 linear feet along Avenue S adjacent to the Project site. In addition, the meandering internal sidewalk within the QV Public Park will allow pedestrian movement separate from bicycle movement. The Project will include a decomposed granite trail separate from a curb adjacent pedestrian sidewalk that proceeds through the QV Public Park and a separate decomposed granite trail that surrounds the HOA Recreation Center circular area. The decomposed granite trail will extend parallel to the length of the circular perimeter.
GOAL EHC-12: A City designed to improve air quality and reduce disparate health impacts.	CONDITIONALLY CONSISTENT. The Air Quality Impact Analysis prepared for the Project indicated that total operational emissions by Project Activity will be below Antelope Valley Air Quality Management District (AVAQMD) significance thresholds. However, Project short-term impacts associated with Project grading would result in Significant and Unavoidable Impacts pertaining to generation of Nitrogen Oxides in an amount that would exceed AVAQMD thresholds of significance.
Policy EHC-12.1: Tree Planting. Plant street trees, identified within the City's plant palette, throughout Palmdale, and especially in disadvantaged communities. Plant trees to provide shade and screening, especially along south and west facing sides of buildings.	CONSISTENT. Quail Valley will contain extensive planting along Project roadways, at the Project entry, and within public spaces. Drought-tolerant and high desert species will be emphasized. The Quail Valley Planned Development Plan contains a Landscape Plant Palette that enumerates Evergreen, Deciduous, and Herbaceous tree, shrub, desert accent, grass, ground cover, perennial, and vine species.

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<p>Policy EHC-12.4: Sensitive Land Uses. Avoid siting schools, daycare facilities, playgrounds, older adult housing, and housing near land uses that produce localized air pollution (e.g., SR-14, SR-138, and Plant 42). For sensitive land uses that cannot be sited at least 500 feet away from sources of localized air pollution, potential design mitigation options include:</p> <ul style="list-style-type: none"> • Provide residential units with individual heating, ventilation, and air conditioning (HVAC) systems to allow adequate ventilation with windows closed. • Locate air intake systems for HVAC systems as far away from existing air pollution sources as possible. • Use High Efficiency Particulate Air (HEPA) air filters in the HVAC system and develop a maintenance plan to ensure the filtering system is properly maintained. • Use sound walls, berms, and vegetation as physical barriers. • Notify new potential home buyers of risks from air pollution. 	<p>CONSISTENT. Quail Valley residences will be set back from Avenue S. Appropriate and necessary measures will be implemented and depicted on building plans.</p>
<p>Policy EHC-16.3: Crime Prevention Through Environmental Design. Use Crime Prevention Through Environmental Design (CPTED) strategies in new and existing development to improve public safety, including the following:</p> <ul style="list-style-type: none"> • Active public space 	<p>CONSISTENT. Quail Valley will provide approximately 183 acres of open space in Area A (separate from the 210 acres of open space comprising Area B, a 26.4-acre public park (QV Public Park), and a 3.2-acre HOA Recreation Center that together will comprise active public spaces available to all community members and visitors to the community. The linear park is designed with street parking along one side with no-parking areas</p>

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GOAL/POLICY	CONSISTENCY
<ul style="list-style-type: none"> Building design to promote “eyes on the street” Maintenance of public places Removal or repair of vandalism or broken property 	for emergency and enforcement visual and physical access to the park
Policy EHC-16.4: Public Realm Lighting. Improve lighting and nighttime security across all city neighborhoods to prevent crime and increase safety.	CONSISTENT. Public spaces, including the extensive trail system, will be lighted according to a Lighting Plan to be approved by the City of Palmdale prior to issuance of Building Permits.
PARKS, RECREATION AND OPEN SPACE ELEMENT	
GOAL PR-1: Provision of adequate park and recreation facilities to meet the needs of all existing and future residents.	CONSISTENT. The 26.4-acre QV Public Park will contain an HOA Recreation Center for use of HOA members, trails, and areas for passive and active recreation to serve Project residents and visitors.
Policy PR-1.2: Park Location. Ensure that park sites are located equitably, throughout the city, to maximize access to parks for residents within a 20-minute walking distance.	CONSISTENT. The QV Public Park will be centrally located within Area A and thereby accessible for Project residents. The farthest residential lot from the QV Public Park will within a 20-minute walking distance of all residential lots.
Policy PR-1.3: Parks Accessibility. Provide a variety of parks and recreational facilities accessible to all residents throughout the city, including community and neighborhood parks, to meet the needs of youth, adults, and senior citizens.	CONSISTENT. The QV Public Park will be available to all Palmdale residents through the public roadway system in the City and on the Project site.
Policy PR-1.7: ADA Design. Incorporate all design features, required by the Americans with Disabilities Act, which improve access to parks and park facilities for citizens with different abilities and needs.	CONSISTENT. The Quail Valley Public Park will contain design features to comply with the Americans with Disabilities Act, as required by the City of Palmdale during Project discretionary review. The QV Public Park includes public parking lots with ADA parking stalls.
Policy PR-2.1: Bikeway Network. Encourage bicycle use by developing a comprehensive bikeway network for the city that meets access needs of all bicyclists.	CONSISTENT. Quail Valley will include an 8-foot-wide asphalt bicycle trail that will extend approximately 1,180 linear feet along Avenue S adjacent to the Project site. The internal loop roadway system includes approximately 32,000 linear feet of bike trails within the street cross section. In addition, the meandering internal

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	sidewalk within QV Public Park will allow pedestrian movement separate from bicycle movement. The Project will include a decomposed granite trail separate from a curb adjacent pedestrian sidewalk that surrounds the central QV Public Park/HOA Recreation Center circular area. The decomposed granite trail will extend parallel to the length of the circular perimeter. .
Policy PR-4.1: Incorporate Parkland. Wherever feasible, incorporate uses that increase the public benefit of park land, and are compatible with the goal of providing active recreation opportunities.	CONSISTENT. The 26.4-acre QV Public Park, comprised of three primary park areas, includes an extensive exercise course, a multi-purpose trail, and other amenities with more than 13 acres of active recreation elements.
Policy PR-5.2: Park Fees. Collect park fees and review this fee annually, to provide financing for improvement of parkland.	CONSISTENT. The 26.4-acre QV Public Park contains over 13.1 acres of “active” use area, including turf play areas, a small amphitheater, benches, picnic tables, play structures, walkways and bridges, shade and gathering locations, a restroom, trash facilities, two dog parks, an extensive exercise course, and three ADA and EV dedicated parking lots, and an additional 118 designated parking spots specifically dedicated to park parking, and a 12-foot-wide decomposed granite trail, associated fencing and an adjacent five-foot-wide sidewalk. There also are an additional 13.3 acres of other passive use areas within the QV Public Park. Extension of the 12-foot-wide decomposed granite multi-purpose Antelope Valley Backbone Trail beyond the boundary of the park includes another .9 acres. In addition, as part of the trail network, over 5 acres (assuming a 20’ wide easement) of five-foot-wide semi-improved trails are planned for the upper areas of the permanently undeveloped area within the southern open space area. The Antelope Valley Backbone Trail component extends on dirt roadways continuing south into Area B for another approximately 2,760 linear feet. The Project exceeds the City’s requirement for Park and Parkland acres.
GOAL PR-6: Provide a network of open space areas to provide for passive and active recreation opportunities, enhance the integrity of biological	CONSISTENT. A portion of Area A and all of Area B will be permanently undeveloped as part of Project realization. The permanently undeveloped area is approximately 395 acres, and deeds

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systems, and provide visual relief from the developed portions of the city.	<p>specifying such will be memorialized in HOA Covenants, Conditions and Restrictions to be recorded to the benefit of the City of Palmdale. Although approximately 235 of juvenile and mature Joshua Trees will be removed as part of site development/grading, 194 juvenile and mature Joshua Trees will be avoided. In addition, 227 seedlings will be removed; 165 will be avoided. Also, approximately 2,600 California junipers will be preserved within the 878.1-acre Project site.</p> <p>Project development would impact less than one-fourth of the habitat under the jurisdiction of the California Department of Fish and Wildlife; none of the affected habitat consists of vegetated riparian habitat.</p> <p>The permanently undeveloped area (395 acres) will allow for preservation of the greater hillside areas of the Project site and thereby serve to protect views of the Quail Valley development from Avenue S and from other nearby public roadways and private properties.</p>
<p>Policy PR-6.1: Open Space Network. Develop an open space network through preservation of corridors along fault zones, natural drainage courses and in hillside areas to connect with the large areas of open space designated on the General Plan Land Use Map.</p>	<p>CONSISTENT. The Project site is subject to the City of Palmdale Hillside Management Ordinance (Chapter 17, Article 100 of the City Zoning Ordinance). The intent of the Quail Valley development program and design is to maintain as intact the significant ridgelines and landforms that provide the backdrop to much of the City's southern skyline by clustering Project development in the lower elevations on the Project site and minimizing the height of manufactured slopes to the extent feasible. Steeper, more prominent hillsides in Area B and steeper slop areas within Area A will be retained as permanently undeveloped. The permanently undeveloped area (395 acres) will allow for preservation of the greater hillside areas of the Project site and thereby serve to protect views of the Quail Valley development from Avenue S and</p>

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	from other nearby public roadways and private properties.
Policy PR-6.3: Passive Recreation Use. Encourage the use of open space areas for passive recreation with access points, multi-use trails, and interpretive information.	<p>CONSISTENT. Quail Valley will include an 8-foot-wide asphalt bicycle trail that will extend approximately 1,180 linear feet along Avenue S adjacent to the Project site. In addition, the meandering internal sidewalk within the QV Public Park will allow pedestrian movement separate from bicycle movement. The Project will include a decomposed granite trail separate from a curb adjacent pedestrian sidewalk that proceeds through the QV Public Park and a separate decomposed granite trail that surrounds the HOA Recreation Center circular area. The decomposed granite trail will extend parallel to the length of the circular perimeter.</p> <p>Furthermore 5-foot-wide unimproved trails that will extend approximately 12,700 linear feet are planned for the upper portion of Area A.</p>
GOAL PR-7: Maintain a system of multi-use trails that provide connections to regional trails systems and residential neighborhoods.	<p>CONSISTENT. Quail Valley will include an 8-foot-wide asphalt bicycle trail that will extend approximately 1,180 linear feet along Avenue S adjacent to the Project site. In addition, the meandering internal sidewalk within the QV Public Park will allow pedestrian movement separate from bicycle movement. The Project will include a decomposed granite trail separate from a curb adjacent pedestrian sidewalk that proceeds through the QV Public Park and a separate decomposed granite trail that surrounds the HOA Recreation Center circular area. The decomposed granite trail will extend parallel to the length of the circular perimeter.</p> <p>Incorporation of the multi-purpose trail within the central QV Public Park in conjunction with the trail transition through the central circular are of the Project and incorporation of the northerly lower trail area adjacent to the entry roadway will provide an enhanced link to the County Regional Trail system.</p>

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	In addition, the one-acre rural lots in Planning Area 2 will have an 8-foot-wide private unimproved trail system that will connect to the 12-foot-wide multipurpose trail system within the QV Public Park. Furthermore 5-foot-wide unimproved trails that will extend approximately 12,700 linear feet are planned for the upper portion of Area A.
Policy PR-7.1: Multi-Use Trails. Provide and maintain multi-use trails, for use by pedestrians, bicyclists, and equestrians, connecting to existing or currently planned multi-use trails.	<p>CONSISTENT. Quail Valley will include an 8-foot-wide asphalt bicycle trail that will extend approximately 1,180 linear feet along Avenue S adjacent to the Project site. In addition, the meandering internal sidewalk within the QV Public Park will allow pedestrian movement separate from bicycle movement. The Project will include a decomposed granite trail separate from a curb adjacent pedestrian sidewalk that proceeds through the QV Public Park and a separate decomposed granite trail that surrounds the HOA Recreation Center circular area. The decomposed granite trail will extend parallel to the length of the circular perimeter.</p> <p>Quail Valley will include more than 7.1 miles of new trails. The new trails will provide connections to existing dirt roadways extending from the Project site in multiple directions. Among the trail connections, will be a link to the Los Angeles County Regional Trail system that traverses the Project site in a north-south direction. Incorporation of the multi-purpose trail within the central QV Public Park in conjunction with the trail transition through the central circular area of the Project and incorporation of the northerly lower trail area adjacent to the entry roadway will provide an enhanced link to the County Regional Trail system. In addition, the one-acre rural lots in Planning Area 2 will have an 8-foot-wide private unimproved trail system that will connect to the 12-foot-wide multipurpose trail system within the QV Public Park. Furthermore 5-foot-wide unimproved trails</p>

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	that will extend approximately 12,700 linear feet are planned for the upper portion of Area A.
Policy PR-7.2: Multi-Use Trail Connections. Prioritize multi-use trail connections to existing neighborhoods, public parks, and public facilities based on the modal priority network in the Mobility Element.	CONSISTENT. Quail Valley will include more than 7.1 miles of new trails. The new trails will provide connections to existing dirt roadways extending from the Project site in multiple directions. Among the trail connections, will be a link to the Los Angeles County Regional Trail system that traverses the Project site in a north-south direction. Incorporation of the multi-purpose trail within the central QV Public Park in conjunction with the trail transition surrounding the central circular area of the Project and incorporation of the northerly lower trail area adjacent to the entry roadway will provide an enhanced link to the County Regional Trail system. In addition, the one-acre rural lots in Planning Area 2 will have an 8-foot-wide private unimproved trail system that will connect to the 12-foot-wide multipurpose trail system within the QV Public Park. Furthermore 5-foot-wide unimproved trails that will extend approximately 12,700 linear feet are planned for the upper portion of Area A.
Policy PR-7.4: Trail Accessibility. To the extent feasible, ensure that trails are accessible to all residents and incorporate ADA design features.	CONSISTENT. Quail Valley's extensive trail system will ensure available access for Americans with Disabilities Act facilities are incorporated at all feasible locations.
Policy PR-7.5: Trail Amenities and Facilities. Provide trail support facilities, such as benches, trash cans and trail heads/staging areas, as needed throughout the multi-use trails network.	CONDITIONALLY CONSISTENT. The Project developers/HOA will ensure trail support facilities/amenities are available throughout the pedestrian and bicycle network of trails to maintain the high quality of the overall Quail Valley community.
GOAL PR-8: Preserve significant natural and constructed open space areas that give the city its distinct form and identity.	CONSISTENT. The Project site is subject to the City of Palmdale Hillside Management Ordinance (Chapter 17, Article 100 of the City Zoning Ordinance). The intent of the Quail Valley development program and design is to maintain as intact the significant ridgelines and landforms that provide the backdrop to much of the City's southern skyline by clustering Project development in the

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	lower elevations on the Project site and minimizing the height of manufactured slopes to the extent feasible. Steeper, more prominent hillsides in Area B and steeper slop areas within Area A will be retained as permanently undeveloped. The permanently undeveloped area (395 acres) will allow for preservation of the greater hillside areas of the Project site and thereby serve to protect views of the Quail Valley development from Avenue S and from other nearby public roadways and private properties.
Policy PR-8.2: Varied Open Space Features. Utilize a variety of features, including city entry points, landscaped arterial roadways, bikeways, equestrian paths, hiking trails, and park sites, to create an open space network.	CONSISTENT. There will be 395 permanently undeveloped acres on the 878.1-acre Project site. This area will include the following: <ul style="list-style-type: none"> • All Area B (210.6 acres); • A primary entryway to the community from Avenue S that includes signage, street side landscaping, monumentation, decorative wood trellis on stone pilasters, drought tolerant grass mounds, drought tolerant accent plants, and mesquite and other desert sensitive trees; • Bicycle trails along internal roadways; • Riding and hiking trails; and, • A 26.4-acre QV Public Park.
Policy PR-8.3: Open Space Linkages. Create a network of open space by creating linkages wherever possible, especially to and from residential neighborhoods.	CONSISTENT. Incorporation of the multi-purpose trail within the QV Public Park in conjunction with the trail transition through the central circular are of the Project and incorporation of the northerly lower trail area adjacent to the entry roadway will provide an enhanced link to the AVBBT system. In addition, the one-acre rural lots in Planning Area 2 will have an 8-foot-wide private unimproved trail system that will connect to the 12-foot-wide multipurpose trail system within the QV Public Park. Furthermore 5-foot-wide unimproved trails that will extend approximately 12,700 linear feet are planned for the upper portion of Area A.

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<p>Policy PR-8.4: Open Space Preservation Through Hillside Management Ordinance.</p> <p>Implement the standards adopted under the City's Hillside Management Ordinance for new development including clustering and density transfer of housing units, in order to maintain areas of scenic and other open space within hillside areas.</p>	<p>CONSISTENT. The Quail Valley Project site is subject to the City of Palmdale Hillside Management Ordinance. Quail Valley will remain intact significant ridgelines and landforms that provide the visual backdrop to much of the City's southern skyline. The steeper, more prominent hillsides in Area B and steeper slopes within Area A will be retained as permanently undeveloped area. The allocated residential density of Area B is proposed to be transferred to the development envelope in the Area A central valley to maintain the scenic areas and open space within the overall Project site.</p>
<p>Policy PR-8.5: Location and Retain Open Spaces.</p> <p>Utilize the City's discretionary land use approval process to locate and retain areas for use as open space through dedication or other legal means. Develop criteria and guidelines to identify areas that should be protected.</p>	<p>CONSISTENT. There will be 395 permanently undeveloped acres on the 878.1-acre Project site, inclusive of the entirety of Area B (210.6 acres).</p>
CONSERVATION ELEMENT	
<p>GOAL CON-1: Protect Significant Ecological Areas in and around the City, including, but not limited to, sensitive flora and fauna habitat areas.</p>	<p>CONDITIONALLY CONSISTENT. Approximately 395 acres (45% of total) would be avoided during Project development.</p> <p>Approximately 2 acres of California State Department of Fish and Wildlife (CDFW) jurisdiction occurs on the Project site, of which approximately one acre is riparian vegetation. Project development would result in loss of 9,002 linear feet of "streambed" that in total comprises 0.45 acre of jurisdiction. Impacts to CDFW jurisdiction will require a California Fish and Game (Wildlife) Code Section 1602 Streambed Alteration Agreement. The Biological Resources Assessment prepared for the Project/Project site determined that no riparian vegetation would be affected as a result of Project development or operation and the EIR</p> <p>There are no "waters" of the U.S. on the Project site, as confirmed by the Army Corps of Engineers.</p>

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<p>Policy CON-1.1: Endangered Species. Ensure local compliance with the California Endangered Species Act and the Federal Endangered Species Act (ESA).</p>	<p>CONSISTENT. The candidate, sensitive, and special status species that have been found to inhabit the Project site or believed to inhabit the Project site would be affected to varying degrees. Highly and moderately mobile organisms likely would relocate from the Project site to adjoining and nearby habitats once Project disturbance begins. Lesser mobile organisms could be lost during site preparation and grading activities. However, to some extent the net loss of supporting habitat would be offset by permanently excluding approximately 415 acres on the Project site from development. The excluded area tends to qualify as higher value habitat. In addition, adequate habitats would remain along the north flank of the San Gabriel Mountains generally and the Sierra Pelona Range locally to an extent that substantial effects leading to extirpation or elimination of species seems, according to the Biological Resources Assessment conducted for the Project/Project site, highly unlikely. Therefore, it does not appear that Project development or operation would substantially affect candidate, sensitive, or special status species on the Project site.</p>
<p>Policy CON-1.2: Joshua and Juniper Trees. Continue enforcing the City's Native Vegetation Ordinance to protect western Joshua trees and Juniper trees.</p>	<p>CONSISTENT. On June 27, 2023, the California Legislature passed the "Western Joshua Tree Conservation Act." This legislation permanently protects this species by providing the trees with protections comparable to those they would receive under the California Endangered Species Act, but with additional permitting mechanisms to address renewable energy and housing projects in their range. The law also requires the California Department of Fish and Wildlife to prepare a conservation plan for the trees by end of year 2024. Provisions of the Western Joshua Tree Conservation Act include the following:</p> <ul style="list-style-type: none"> • Prohibiting unpermitted killing or removal of the trees; • Requiring a conservation plan for the species;

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	<ul style="list-style-type: none"> • Creating a fund to acquire and manage lands to protect the species; • Creating a permitting regime expected to be faster and cheaper than the State Endangered Species Act; • Requiring regular reviews of the species' status and the effectiveness of the permitting regime and conservation plan; and, • Requiring consultation with California Native American Tribes on the law's implementation. <p>Envicom staff arborists conducted a survey of Western Joshua Trees growing in Project site Areas A and B over the course of seven days between December 14, 2022 and May 5, 2023. Envicom Corporation staff conducted a survey of western Joshua trees in Areas A and B on the Project site over the course of seven days between December 14, 2022 and May 5, 2022. The surveys included an inventory and evaluation of all Joshua trees with a stem or trunk rising from the ground, regardless of proximity to another Joshua tree. The survey involved walking transects and investigating particular areas as thoroughly as necessary to detect presence of Joshua trees. This included searching understory of scrub habitat. Also, inaccessible areas were scanned using binoculars from distances and vantage points that allowed viewing of the entire Project site and detection of Joshua trees and seedlings.</p> <p>The height of each tree was measured and assigned to age classes outlined in the Draft Western Joshua Tree Conservation Act (Division 2 of the Fish and Game Code, Chapter 11.5, Section 1927), as follows: Trees measuring less than 1 meter tall; trees measuring 1-5 meters in height; and, trees measuring 5 meters or taller. Age class of the trees was based on the observed reproductive phase of each tree. Trees that showed evidence of flowers or fruits at</p>

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	<p>time of survey were classified as “Mature”; trees that only had leaves and no evidence of reproductive structures or propagules were termed as “Juveniles.” To provide information about potential habitat for mapped Joshua trees, 1 186-foot “Habitat Buffer” was mapped to illustrate the presumed extent of the Joshua tree seedbank at the Project site.</p> <p>The survey recorded a total of 821 Joshua trees on the Project site, including 429 trees and 392 seedlings.</p> <p>TeraCor Resource Management staff conducted an update to the General Biological Assessment which, after field surveys, indicated plant communities observed within the Project site “...were still relatively the same as noted in the 2020 report.” Furthermore, the Update concluded “the 2020 report is considered valid and sufficient with the addition of the new WJT regulations.” The Update indicates the western Joshua Tree Conservation Act (WJTCA) is effect and can be used to process mitigation measures for the western Joshua tree. The western Joshua tree still can be processed under the California Endangered Species Act (CESA) because it still is considered a candidate species for listing under CESA. However, both these avenues required a western Joshua tree census with some differences between what is required. The most significant difference between the two paths is how western Joshua trees are counted and how they can be mitigated. The western WJTCA indicates they can be mitigated by providing money to a mitigation fund whereas under CESA they must be mitigated through a mitigation land bank. It is important to know that “both avenues use the Incidental Take permit to process mitigation for WJT [western Joshua trees]. Furthermore, the Update states that “mitigation measures for a WJT census and ITP [Incidental Take Permit] under CESA were included in the 2020 report.”</p>

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Policy CON-1.3: West Mojave Plan. Comply with the required implementation of the West Mojave Plan for protection of desert tortoise and Mohave ground squirrel.	CONSISTENT. The Biological Resources Assessment for the Project site does not identify the Desert Tortoise or the Mohave Ground Squirrel as present on the Project site.
Policy CON-1.4: Significant Ecological Areas. Identify and preserve to the greatest extent feasible significant ecological areas (SEAs) as shown in Figure 11.3. Areas to consider for open space preservation include, but are not limited to, Tejon Park, Barrel Springs Southern Trailhead, and the Una Lake area.	CONSISTENT. The Project site is not located within a Significant Ecological Area.
Policy CON-1.5: Preserve Ecological Resource Areas. Preserve natural drainage courses and riparian areas where ecological resources exist in significant concentration.	CONDITIONALLY CONSISTENT. Approximately 2 acres of California State Department of Fish and Wildlife (CDFW) jurisdiction occurs on the Project site, of which approximately one acre is riparian vegetation. Project development would result in loss of 9,002 linear feet of “streambed” that in total comprises 0.45 acre of jurisdiction. Impacts to CDFW jurisdiction will require a California Fish and Game (Wildlife) Code Section 1602 Streambed Alteration Agreement. The Biological Resources Assessment prepared for the Project/Project site determined that no riparian vegetation would be affected as a result of Project development or operation and the EIR There are no “waters” of the U.S. on the Project site, as confirmed by the Army Corps of Engineers.
GOAL CON-2: Preserve designated natural hillsides and ridgelines in the Planning Area, to maintain the aesthetic character of the Antelope Valley.	CONSISTENT. The City of Palmdale Hillside Management Ordinance establishes regulations intended to preserve significant ridgelines and landforms that provide much of the backdrop to the City’s skyline. The Ordinance contains provisions that allow for orderly and sensitive development in hillside areas in conjunction with preservation of natural open space on steeper terrain and establishes specific submittal requirements, review standards, and processing procedures for projects (such as

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	<p>Quail Valley) within hillside areas. The Quail Valley Planned Development Plan has been designed:</p> <ul style="list-style-type: none"> • To minimize erosion and geologic hazards in hillside areas; • To respect the natural terrain on the Project site, • To use grading techniques that blend with the natural terrain of the Project site; • To retain natural drainage patterns to the maximum extent possible; • To maintain the hillside visual backdrop to the City's skyline; and, most importantly, • To transfer residential density allowance on 210.6 hillside acres to lower elevations on the Project site.
<p>Policy CON-2.1: Hillside Land Management. Establish a systematic approach to the management of land uses and development in hillside areas.</p>	<p>CONSISTENT. The City of Palmdale Hillside Management Ordinance establishes regulations intended to preserve significant ridgelines and landforms that provide much of the backdrop to the City's skyline. The Ordinance contains provisions that allow for orderly and sensitive development in hillside areas in conjunction with preservation of natural open space on steeper terrain and establishes specific submittal requirements, review standards, and processing procedures for projects (such as Quail Valley) within hillside areas.</p>
<p>Policy CON-2.2: Natural Ridgelines. Retain the integrity of the natural ridgelines of Ritter Ridge, Portal Ridge, Verde Ridge, the Ana Verde Hills, the Sierra Pelona Mountains, and the lower foothills of the San Gabriel Mountains.</p>	<p>CONSISTENT. The Quail Valley Project site is subject to the City of Palmdale Hillside Management Ordinance. Quail Valley will remain intact significant ridgelines and landforms that provide the visual backdrop to much of the City's southern skyline. The steeper, more prominent hillsides in Area B and steeper slopes within Area A will be retained as permanently undeveloped area. The allocated residential density of Area B is proposed to be transferred to the development envelope in the Area A central valley to maintain the scenic areas and open space within the overall Project site.</p>

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Policy CON-2.3: Density Transfers. Encourage density transfers where appropriate so that the density of development respects and is reflective of the natural terrain.	CONSISTENT. The Quail Valley Planned Development Plan includes an entitlement request to transfer the total General Plan/Zoning Code allowable residential density in Planning Area B to Planning Area A. Although the proposed transfer of unit allowance is not compelled by seismic, drainage, rights-of-way, or other conditions identified in the technical studies prepared for the Project site/Project, the transfer would better enable a clustered residential development design in Planning Area A, would ensure preservation of hillsides on the overall Project site, and would preserve vistas of the mountains that are part of, and adjacent to, the Project site.
Policy CON-2.4 – Development in Suitable Locations. Facilitate development in more suitable locations while retaining significant natural slopes and areas of environmental sensitivity as natural open space.	CONSISTENT. Project site/Project, the transfer would better enable a clustered residential development design in Planning Area A, would ensure preservation of hillsides on the overall Project site, and would preserve vistas of the mountains that are part of, and adjacent to, the Project site.
GOAL CON-5: Protect the Quality and Quantity of Local Water Resources.	CONSISTENT. Project development would involve ground-disturbing activities and use of heavy machinery that could release hazardous materials, including sediments and fuels. However, compliance with State of California and City of Palmdale requirements construction permits, and implementation of construction Best Management Practices (BMP) will prevent violations of water quality standards and waste discharge standards. In addition, Project compliance with post-development BMP will prevent violations of water quality standards and waste discharge requirements.
Policy CON-5.4: Flood Control Measures. Maximize groundwater recharge capabilities with flood control measures.	CONSISTENT. Although substantial rainfall and landscape irrigation can result in fluctuating groundwater levels, use of dry wells as part of Quail Valley Project development will mitigate loss of groundwater infiltration resulting from Project development.

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GOAL CON-6: Minimize the Impacts of Urban Development on Groundwater Supplies.	<p>CONSISTENT. Although the geologic study prepared for the Project indicated that according to State of California records the historic high groundwater level near the Project site has been mapped to be a depth of 8 feet, exploratory borings conducted for the Project Geologic Study encountered groundwater at a depth ranging between 32 and 45 feet. A heavy rainy season and irrigation of landscaped areas on or adjacent to the Project site can cause a fluctuation of local groundwater levels. However, use of dry wells as part of Project development will mitigate loss of groundwater infiltration resulting from Project development.</p> <p>Project development will increase impervious surfaces on the Project site. However, Project final design will incorporate design features and storm drain improvements that will ensure no increase runoff will occur. In addition, Project storm drain improvements will have sufficient capacity to accommodate and convey Project-generated stormwater runoff.</p> <p>Quail Valley Project developer(s) will be required to prepare Water Quality Management Plans and incorporate BMP into final development plans as necessary to ensure runoff does not contribute to existing water quality violations.</p> <p>Also, Quail Valley developer(s) also will be required to prepare Storm Water Pollution Prevention Plans (SWPPP) to ensure substantial soil erosion and/or sedimentation will not occur during temporary construction activities or in the long-term.</p>
Policy CON-6.1: Encourage Natural Recharge. Restrict building coverage and total impervious area in the vicinity of natural recharge areas.	<p>CONSISTENT. Project development will increase impervious surfaces on the Project site. However, Project final design will incorporate design features and storm drain improvements that will ensure no increase runoff will occur. In addition, Project storm drain improvements will have sufficient capacity to</p>

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	accommodate and convey Project-generated stormwater runoff.
Policy CON-6.2: Reduce Landscaping Irrigation Needs. Require the use of water conserving native or drought resistant plants and drip irrigation systems where feasible.	CONSISTENT. The Quail Valley Landscaping Palette is focused to using drought-tolerant and native trees, shrubs, and plants.
Policy CON-6.3: Reduce Street Runoff. Design streets to incorporate vegetation, soil, and engineered systems to slow, filter, and cleanse stormwater runoff.	CONSISTENT. Project development will alter existing drainage patterns. The Quail Valley Planned Development Plan depicts a number of debris basins at internal intersections. Primary drainage will be conveyed within the street curbs to positioned storm drain lines, and from the lines to a large storm drain line in the Project's central greenbelt, then terminating in an open detention basin adjacent to Avenue S. Drainage from the detention basin will be conveyed via the existing box culvert beneath Avenue S to the north. Some low volume and nuisance water will be conveyed through the storm drain system and treated via biofiltration in the QV Public Park and through a series of dry wells that the Hydrology Study for the Project notes in detail. A secondary drainage facility and discharge location will occur at the northwest corner of the Project site. This interim drainage facility will be converted to graded residential lots upon completion of regional downstream off-site drainage facilities in a manner stipulated in the Hydrology Study. Drainage in the lower northeast portion of the Project site (Planning Area 2 and a portion of Planning Area 3) that will contain one-acre equestrian lots will be conveyed within the street curb area to located storm drain lines before discharging into a detention basin at the northeast boundary of Planning Area 2. This drainage will be conveyed under the aqueduct via an existing storm drain line. The three five-acre rural lots located in Planning Area 10 in the southeast corner of the

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	Project site will not significantly alter existing drainage in this Planning Area. These lots are sufficiently large to accommodate drainage changes within each individual lot.
Policy CON-6.4: New Construction Water Conservation. Require water conserving appliances and plumbing fixtures in all new construction.	CONSISTENT. Future residences in Quail Valley, as well as the HOA Recreation Center will be required to comply with State of California regulations pertaining to water conserving appliances and plumbing fixtures.
Policy CON-7.1: Reclaimed Water Irrigation. Assess and implement, when and where feasible, reclaimed water for landscape irrigation.	CONDITIONALLY CONSISTENT. Quail Valley Project developer(s) will use reclaimed water for landscape irrigation in areas where, and if, feasible.
GOAL CON-8: Protect Historical and Culturally Significant Resources, which Contribute to the Community's Sense of History.	<p>CONSISTENT. The Cultural and Paleontological Assessment conducted for the Project site indicated there were two records of historical/archaeological sites within one-quarter mile of the Project site, and 15 records between one-half mile and one mile of the Project site.</p> <p>There is one previously recorded undocumented prehistoric archaeological site on the Project site, consisting of a Tribal Cultural Resource and a sacred place consisting of 38 defined cupules and a meandering groove on several sides of a rock outcrop. Pecked petroglyphs, which are present in this resource site are very scarce in the western Mojave Desert and surrounding mountains.</p> <p>The Quail Valley development footprint will not extend into this resource.</p>
Policy CON-8.4: Preservation in New Development. Require that new development preserve significant historic, paleontological, or archaeological resources.	<p>CONSISTENT. The Cultural and Paleontological Assessment conducted for the Project site indicated there were two records of historical/archaeological sites within one-quarter mile of the Project site, and 15 records between one-half mile and one mile of the Project site.</p> <p>There is one previously recorded undocumented prehistoric archaeological site on the Project site,</p>

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	<p>consisting of a Tribal Cultural Resource and a sacred place consisting of 38 defined cupules and a meandering groove on several sides of a rock outcrop. Pecked petroglyphs, which are present in this resource site are very scarce in the western Mojave Desert and surrounding mountains.</p> <p>The Quail Valley development footprint will not extend into this resource.</p>
<p>Policy CON-8.5: Tribal Consultation. Conduct Native American consultation consistent with the applicable regulations when new development is proposed in potentially culturally sensitive areas.</p>	<p>CONSISTENT. The City of Palmdale Planning Department staff conducted required Native American tribal consultation. As a result, the City selected the San Manuel Band of Mission Indians to provide Native American monitoring of Project development.</p>
<p>Policy CON-8.6: Discovery Coordination with Tribal Groups. When human remains suspected to be of Native American origin are discovered, coordinate with the Native American Heritage Commission and any local Native American groups to determine the most appropriate course of action.</p>	<p>CONSISTENT. If human remains suspected to be of Native American origin are discovered during Project development, the Project EIR provides Mitigation Measures that require coordination with the Native American Heritage Commission and local tribal groups pertaining to determination of the most appropriate course of action in a manner consistent with State of California legislation.</p>
<p>GOAL CON-9: Promote Community Design that Reflects Palmdale's History and Preserves Palmdale's Cultural Resources.</p>	<p>CONSISTENT. The Cultural and Paleontological Assessment conducted for the Project site indicated there were two records of historical/archaeological sites within one-quarter mile of the Project site, and 15 records between one-half mile and one mile of the Project site.</p> <p>There is one previously recorded undocumented prehistoric archaeological site on the Project site, consisting of a Tribal Cultural Resource and a sacred place consisting of 38 defined cupules and a meandering groove on several sides of a rock outcrop. Pecked petroglyphs, which are present in this resource site are very scarce in the western Mojave Desert and surrounding mountains.</p> <p>The Quail Valley development footprint will not extend into this resource.</p>

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Policy CON-9.3: Locally Appropriate Landscape Design. Preserve the natural heritage of the region through landscape design by ensuring the local stock of native trees and vegetation is replenished and protected.	CONSISTENT. The Quail Valley landscape plant palette includes native and drought tolerant tree, shrub, desert accent, grass, ground cover, perennial, and vine species. The species are comprised of evergreen, deciduous, and herbaceous plantings that will be used reflect the native terrain and history of the high desert.
PUBLIC FACILITIES, SERVICES, AND INFRASTRUCTURE ELEMENT	
Policy PFSI-2.1: Response Times. Maintain existing or superior average response times for fire and police services as the City's population expands.	CONSISTENT. Although Los Angeles County Fire Department response times in the City are considered adequate, Project operation would increase the number of calls for service. Payment of Development Impact Fees would enable the Fire Department to acquire new facilities, equipment, and personnel as deemed necessary to maintain the same level of service.
Policy PFSI-2.4: County Sheriff Coordination. Coordinate with the Los Angeles County Sheriff's Department to ensure that service availability, resources, and staffing are appropriate for the community need.	CONSISTENT. Project operation would result in an increase in demand for law enforcement services. However, Project development operation would generate property taxes that, as part of the City of Palmdale General Fund, would help to ensure maintenance of an adequate level of law enforcement service to the Project site and the remainder of the City.
Policy PFSI-3.1: Water Supply and Delivery. Support water suppliers and other jurisdictions within the Antelope Valley in studying status and projected needs for water supply and delivery.	CONSISTENT. The Palmdale Water District issued a Water Supply Assessment for the Quail Valley Development Project that extends until December 20, 2024. Water service to the Quail Valley Project will be provided as part of the environmental process.
Policy PFSI-3.4: Drainage Facilities. Through the development review process, reserve land in appropriate locations for construction of drainage facilities.	CONSISTENT. Project development will alter existing drainage patterns. The Quail Valley Planned Development Plan depicts a number of debris basins at internal intersections. Primary drainage will be conveyed within the street curbs to positioned storm drain lines, and from the lines to a large storm drain line in the Project's QV Public Park, then terminating in an open detention basin adjacent to Avenue S. Drainage from the detention basin will be conveyed via the existing box culvert beneath Avenue S to the north. Some low volume

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	<p>and nuisance water will be conveyed through the storm drain system and treated via biofiltration in the QV Public Park and through a series of dry wells that the Hydrology Study for the Project notes in detail. A secondary drainage facility and discharge location Will occur at the northwest corner of the Project site. This interim drainage facility will be converted to graded residential lots upon completion of regional downstream off-site drainage facilities in a manner stipulated in the Hydrology Study.</p> <p>Drainage in the lower northeast portion of the Project site (Planning Area 2 and a portion of Planning Area 3) that will contain one-acre equestrian lots will be conveyed within the street curb area to located storm drain lines before discharging into a detention basin at the northeast boundary of Planning Area 2. This drainage will be conveyed under the aqueduct via an existing storm drain line. The three five-acre rural lots located in Planning Area 10 in the southeast corner of the Project site will not significantly alter existing drainage in this Planning Area. These lots are sufficiently large to accommodate drainage changes within each individual lot.</p>
<p>Policy PFSI-3.6: Code Compliance. All private sewage disposal systems must comply with the requirements of the City of Palmdale Plumbing Code, the Los Angeles County Health Department, and Lahontan Regional Water Quality Control Board and any Memorandum of Understanding between these agencies concerning private sewage disposal systems.</p>	<p>CONSISTENT. The 51 one-acre rural equestrian lots in the northeast corner of the Project site are lower in elevation than the gravity sewer line and thereby will be served by individual septic systems consistent with adjacent existing development. The northeast portion of the Quail Valley Project (Planning Area 2) is in an area of slight limitation for septic tank use. Soils with a permeability of more than one inch per hour, excessive or good drainage, no flood hazard, and a permanent water table more than 6 feet deep are considered slight limitations for use of septic tanks. Moderate limitation is characterized by soils of a permeability of 21.0 to 0.63 inch per hour or less, somewhat poor drainage, flooding length less than 48 hours, and the permanent water table depth of 4-6 feet. Severe</p>

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	<p>limitations for septic tanks are due to a permeability of 0.63 inch per hour or less, very poor drainage, a chance of flooding one year in five, and a water table depth of less than 4 feet.</p> <p>Private septic disposal systems in will comply with City of Palmdale, County of Los Angeles, and Lahontan Regional Water Quality Control Board requirements and standards, Including County of Los Angeles Department of Health for Non-Conventional Onsite Waste Treatment Systems Requirements and Procedures (NOWTS). The City review process and the County of Los Angeles review and approval process of the septic disposal systems will be completed prior to issuance of Building Permits for any residences on lots whereon-site waste treat is anticipated.</p>
GOAL PSFI-3: Ensure that All Development in Palmdale is Served by Adequate Water Distribution and Sewage Facilities.	<p>CONSISTENT. The Palmdale Water District has provided a written verification that indicates it will provide water service to the Project site, as discussed previously.</p> <p>Sanitary sewer is available northwest of the Project site at the end of Tangerine Street at the easterly edge of the Anaverde/City Rang residential development. Quail Valley Project development will include a connection to the existing off-site sewer at Avenue S and “A” Street (the Project entry road) through the 15-inch sewer proposed in the property directly north of Quail Valley through the existing City of Palmdale sewer in the Anavede/City Ranch Development, and connecting to the 18-inch Elizabeth Lake Road Extension Trunk Sewer at the intersection of The Groves and Parkwood Avenue. A detailed sewer service analysis performed for the Project (consistent with Los Angeles County Department of Public Works and Los Angeles County Sanitation District requirements has demonstrated that the existing and proposed City of Palmdale sewers are adequately sized to convey the peak sewage flow from the Quail Valley Project to</p>

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	the existing Elizabeth Lake Road Extension Sewer. An annexation to the Sanitation District will be necessary, as well as a potential amendment to the Sanitation District Sphere of Influence.
Policy PFSI-3.8: Public Sewer System Utilization Requirement. Require that all single-family residential uses with lot sizes of less than one acre be connected to a public sewer system.	CONSISTENT. All Quail Valley residential lots of sizes less than one acre will be connected to the public sewer system.
Policy PFSI-3.11: New Development Fees. Require new development to pay necessary fees for expansion and ongoing maintenance of the sewage disposal system to the appropriate agencies, to handle the increased load, which it will generate.	CONSISTENT. The Project developer(s) will be required to remit the indicated Development Impact Fees upon City issuance of Building Permits or as otherwise determined by the City.
Policy PFSI-3.12: Water and Wastewater BMPs. Utilize best management practices (BMP) in the purveyance of water resources and management of wastewater.	CONSISTENT. Quail Valley developer(s) will incorporate Best Management Practices recommended by the City of Palmdale and Project technical consultants that pertain to purveyance of water resources and management of wastewater disposal.
Policy PFSI-3.13: Low Impact Development. Require new development to minimize storm water runoff and pollutant exposure by incorporating low impact development (LID) measures and appropriate best management practices (BMP) consistent with the National Pollution Discharge Elimination System (NPDES).	CONSISTENT. Quail Valley developer(s) will be required to obtain a National Pollution Discharge Elimination System Permit, which will include Best Management Practices and Low Impact Development Measures.
Policy PFSI-3.14: Water and Wastewater Provision. Ensure the provisions of adequate water and wastewater services to all new development.	CONSISTENT. The Palmdale Water District issued a Water Supply Assessment for the Quail Valley Development Project that extends until December 20, 2024. Water service to the Quail Valley Project will be provided as part of the environmental process. The Palmdale Water District also provides wastewater disposal services

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	to the Project vicinity and will provide such service to the Quail Valley Project.
Policy PFSI-3.16: Service Levels. Provide sufficient levels of water, sewer, and storm drain services throughout the City.	CONSISTENT. The Palmdale Water District issued a Water Supply Assessment for the Quail Valley Development Project that extends until December 20, 2024. Water service to the Quail Valley Project will be provided and is discussed as part of the environmental process. The Palmdale Water District also provides wastewater disposal services to the Project vicinity and will provide such service to the Quail Valley Project.
Policy PFSI-4.3: Infrastructure Evaluation. Evaluate infrastructure facilities and service levels within developed areas, which annex to the City, and promote programs to retrofit street, drainage and sewer improvements where warranted.	CONSISTENT. Development in the Quail Valley community will be required to construct all City required infrastructure necessary to support the residential and recreational development proposed.
Policy PFSI-4.4: Cluster Development. Encourage clustering of development where appropriate, to maximize use of infrastructure.	CONSISTENT. The Quail Valley Project will be developed entirely within Area A on the Project site in a clustered fashion. As explained above, the entire Area B will be preserved in its natural state.
Policy PFSI-4.5: Planning Documents. Require comprehensive planning documents such as area plans, specific plans, and development agreements, to specify the nature, timing and financing of both capital improvements and ongoing operations maintenance of public improvements and services.	CONSISTENT. This information will be provided to the City of Palmdale during the Project discretionary process.
GOAL PSFI-5: Ensure that adequate public utilities are available to support development in an efficient and orderly manner.	CONSISTENT. The Project Applicant has secured “will serve” letters from utility providers indicating the providers will be able to provide their respective utility services to the Quail Valley Project.
Policy PFSI-5.2: On-Site Infrastructure. Require all new development, including major modifications to existing development, to construct required on-	CONSISTENT. Development in the Quail Valley community will be required to construct all City required infrastructure necessary to support the residential and recreational development proposed.

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site infrastructure improvements pursuant to City standards.	
Policy PFSI-5.3: Off-Site Fair Share Contribution. Require all new development, including major modifications to existing development, to construct or provide a fair share contribution toward construction of required off-site improvements, needed to support the project. This includes a fair share contribution toward development of regional master facility plans for roads, sewer, water, drainage, schools, libraries, parks, fire, and other community facilities, prior to granting approval of development applications.	CONSISTENT. The Project developer(s) will be required to remit fair share fee contributions to be applied to various off-site facilities and services. Normally, these fees would be required at time of Building Permit issuance. The project exceeds the requirements for provision of park and parkland acreage. Therefore, no payment of park fees would be required.
Policy PFSI-5.7: Adjacent Development Integration. Require that individual development projects integrate with adjacent development with respect to backbone infrastructure (streets, sewer, water, and drainage). If adjacent property is undeveloped, a conceptual plan should be prepared to show that the pending development will allow for future integration and development of adjacent properties in a manner which is reasonable from a design, construction, and cost standpoint.	CONSISTENT. All Quail Valley backbone infrastructure will be constructed according to plans approved by the City of Palmdale and thereby will ensure any necessary proper connections of such infrastructure components with adjacent properties are completed.
GOAL PSFI-6: Coordinate with Utility Providers to Support Adequate Provision of Critical Utilities.	CONSISTENT. The Project Applicant has secured “will serve” letters from utility providers indicating the providers will be able to provide their respective utility services to the Quail Valley Project.
Policy PFSI-6.5: Utility Provision. Coordinate with electricity, gas, and waste providers to ensure adequacy of services for future and current needs.	CONSISTENT. The Project Applicant has secured “will serve” letters from utility providers indicating the providers will be able to provide their respective utility services to the Quail Valley Project.
Policy PFSI-6.8: Utility Easements.	CONSISTENT. All existing utility easements on the Project site will be protected in a manner

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Through the development review process, protect existing utility easements and require dedication of additional easements where needed.	approved by the City of Palmdale and the respective utility providers.
SAFETY ELEMENT	
GOAL SE-1: A City with Minimal Public Health, Safety and Welfare Impacts Resulting from Seismic Hazards.	CONSISTENT. The Geotechnical Review performed for the Project site indicates the Project is not located within an Alquist-Priolo Earthquake (Special Studies) Fault Zone and no active faults have been mapped on the Project site.
Policy SE-1.1: Geologic Review. Review development within or adjacent to geologic hazard zones and provide copies of geotechnical reports and studies to be reviewed by a qualified geologist and implement recommendations to ensure adequate provisions for public safety.	CONSISTENT. The Geotechnical Review performed for the Project site indicates the Project is not located within an Alquist-Priolo Earthquake (Special Studies) Fault Zone and no active faults have been mapped on the Project site. The Project EIR indicates that Project development would result in a Potentially Significant Impact pertaining to the following CEQA Thresholds: <ul style="list-style-type: none"> • The Project would result in substantial soil erosion or loss of topsoil; • The Project would be located on a geologic unit or soil that is unstable, or that would become unstable as a result of Project development and potentially in on-site or off-site landslide, lateral spreading, subsidence, liquefaction, or soil collapse; and, • The Project would be located on expansive soil, creating substantial risks to life or property. However, the EIR contains 23 Mitigation Measures (extrapolated from the Geotechnical Review conducted for the Project site) that would ensure the identified Potentially Significant Impacts would be reduced to less than significant levels.
Policy SE-1.5: Local Hazard Mitigation Plan.	CONSISTENT. The City of Palmdale will require appropriate Project specific mitigations from the City of Palmdale Local Hazard Mitigation Plan

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Implement the policies and mitigation strategies outlined within the Palmdale Local Hazard Mitigation Plan.	<p>(2021-2026 Update). The LHMP is focused to guiding the City to providing the following:</p> <ul style="list-style-type: none"> • A platform for integration of hazard mitigation strategies into day-to-day policies, practices, and programs of the City; • A local and regional appraisal of risk and vulnerability from natural hazards to City assets, critical facilities, infrastructure, economy, and population; • An evaluation of local capabilities to respond to, and recover from, major disasters; • Assurance that Palmdale's Mitigation Plan goals and objectives are compatible with existing hazard mitigation elements within Palmdale's General Plan and Emergency Operations Plan; • A result in identification of prioritized, cost effective mitigation actions and projects to address identified vulnerabilities; and, • Conformance to all guidance from the Federal government's Office of Homeland Security – Federal Emergency Management Agency (FEMA) and the State of California's Governor's Office of Emergency Services (OES), thereby qualifying the City of Palmdale for all manner of Federal mitigation grant programs.
GOAL SE-2: Minimize Public Health, Safety, and Welfare Impacts Resulting from Wildfire Hazards.	<p>CONSISTENT. The majority of the Project site is located in a CalFire-designated Very High Fire Hazard Safety Zone and within a State Responsibility Area. Portions of the Project site are located in a High Fire Hazard Safety Zone. Also, a Very High Fire Hazard Safety Zone is located adjacent to the Project site to the west, south of Avenue S. Fire Hazard Severity Zones do not predict when or where a wildfire will occur, but the Zones do identify areas where wildfire hazards could be more severe. The Project EIR contains a</p>

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	<p>Mitigation Measure (MM-HAZ-1) that states “Prior to issuance of any building permits, the Applicant/Developer shall submit a project specific Fire Protection Plan to the City of Palmdale Planning Manager and Public Works Director for review and approval in consultation with the Los Angeles Fire Department. The plan will incorporate standards for construction, including a zoned fuel modification program to reduce the threat of wildfires, and other elements necessary to comply with City and Fire Department regulations.”</p> <p>Three wildfires have occurred on the project site in the past 20 years.</p>
<p>Policy SE-2.3: Wildland Development. Require that developments located in VHRSZ incorporate and enforce standards for construction, including a fuel modification program (i.e., brush clearance, planting of fire-retardant vegetation) to reduce the threat of wildfires, accounting for any increased risk related to climate change.</p>	<p>CONSISTENT. The Project EIR contains a Mitigation Measure (MM-HAZ-1) that states “Prior to issuance of any building permits, the Applicant/Developer shall submit a project specific Fire Protection Plan to the City of Palmdale Planning Manager and Public Works Director for review and approval in consultation with the Los Angeles Fire Department. The plan will incorporate standards for construction, including a zoned fuel modification program to reduce the threat of wildfires, and other elements necessary to comply with City and Fire Department regulations.”</p>
<p>Policy SE-2.4: Landscaped Buffer Zones. Provide fire-resistant landscaped buffer zones between high-risk fire hazard areas and urban development with fire clearance located on private land and maintained by the property owner(s).</p>	<p>CONSISTENT. The Quail Valley Planned Development Fire Protection Plan depicts landscaped buffer zones between high-risk fire hazard areas and developed areas on the Project site.</p>
<p>Policy SE-2.5: Maintain Firesafe Zones. Require property owners to clear brush and high fuel vegetation and maintain firesafe zones (a minimum distance of 30 feet from the structure or to the property line, whichever is closer) to reduce the risk of fires. For structures located</p>	<p>CONSISTENT. The Quail Valley Planned Development Fire Protection Plan must be approved by the Los Angeles Fire Department as well as by the City of Palmdale. It is anticipated that the required brush clearance distance from structures will be up to 200 feet, if required.</p>

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within a Very High Fire Hazard Severity Zone, the required brush clearance distance is 200 feet from structures to the property line.	
Policy SE-2.7: Emergency Access Routes for Wildfire Hazard Zones. Require all new development in or near designated wildfire hazard zones to identify multiple evacuation/emergency access routes and file with City.	CONSISTENT. Evacuation/emergency access routes to the Quail Valley community will be via “A” Street, extending into the Project site from Avenue S and the existing publicly dedicated Tovey Avenue.
Policy SE-2.9: Development Requirements. As part of the city’s development review process, require that all new buildings and facilities comply with Los Angeles County, state, and federal regulatory standards such as the California Building and Fire Codes as well as other applicable fire safety standards and work with the Fire Department to ensure the provision of adequate fire stations, personnel, and equipment to meet the City’s needs over time.	CONSISTENT. The Quail Valley Building Plans will comply with all applicable California Building and Fire Codes and other applicable fire safety standards.
Policy SE-2.10: Water System Requirements. Require all new development to be served by a water system that meets applicable fire flow requirements.	CONSISTENT. The Palmdale Water District has indicated it can supply required water service to the Quail Valley Project. This will include applicable fire flow requirements.
Policy SE-2.12: Fire Protection Plans. Require fire protection plans for all new development in the VHFSZ.	CONSISTENT. The Project EIR contains a Mitigation Measure (MM-HAZ-1) that states “Prior to issuance of any building permits, the Applicant/Developer shall submit a project specific Fire Protection Plan to the City of Palmdale Planning Manager and Public Works Director for review and approval in consultation with the Los Angeles Fire Department. The plan will incorporate standards for construction, including a zoned fuel modification program to reduce the threat of wildfires, and other elements necessary to comply with City and Fire Department regulations.”

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<p>Policy SE-2.13: Long-Term Maintenance.</p> <p>Continue annual brush inspections and enforce clearance requirements on public and private property within the Very High Fire Hazard Severity Zone (VHFHSZ), as dictated by CAL FIRE, in accordance with the Board of Forestry and Fire Protection Fire Safe Regulations, California Building Standards Code, and Palmdale Municipal Code related to ongoing maintenance of vegetation clearance on public and private roads, roadside fuel reduction plan, and defensible space clearances (including fuel breaks).</p>	<p>CONSISTENT. The annual brush inspections and clearance requirements will be provided for in the Quail Valley Fire Protection Plan.</p>
<p>GOAL SE-3: Minimize Risks Associated with the Transport, Storage, Use, and Disposal of Hazardous Materials.</p>	<p>CONSISTENT. The Project EIR indicates that the level of impact related to Project transport, storage, use, and disposal of hazardous materials will be less than significant. Small quantities of hazardous materials will be used for Project development for tasks such as rock blasting, grading, and building/infrastructure construction. These materials likely will be stored on the Project site because overall Project build out will occur over as many as 13 phases. Construction materials will be required to be used, handled, and transported in compliance with Federal, State and County requirements and will be subject to oversight of the Los Angeles County Fire Department and City of Palmdale.</p> <p>Future residents generally will keep and use small amounts of household maintenance and cleaning materials and landscape maintenance products. Use of these products would not result in a significant risk or hazard to the public health and safety or to the environment.</p> <p>Palmdale 2045 indicates the City Ordinance regulates vehicles exceeding 10,000 pounds gross</p>

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	weight and prohibits their use on undesignated City streets, except when delivering or otherwise servicing uses on such streets. The City of Palmdale or County of Los Angeles may grant a permit for transport of hazardous materials/waste on a case-by-case basis. Caltrans regulates transport of hazardous materials and explosives through the City and must certify transporters of hazardous waste. The Los Angeles County Fire Department is responsible for responding to hazardous materials accidents within the City.
Policy SE-3.3: Soil and Groundwater Cleanup. Require clean-up of soil and/or groundwater containing hazardous materials exceeding regulatory action levels to the satisfaction of the agency having jurisdiction prior to granting permits for new development.	CONSISTENT. Based on a California Division of Oil, Gas and Geothermal Resources (DOGGR) oil well location map, two oil wells have existed near the northwestern boundary of the Project site. Thereby, hazardous materials may be released into the environment and exposure to strong shaking may result from seismic activity. The Project EIR provides 4 Mitigation Measures that would reduce any future impact pertaining to release of hazardous materials to a less than significant impact.
GOAL SE-4: Minimize Impacts to Public Safety and/or Property as a Result of Flooding.	CONSISTENT. According to the FEMA Flood Zone Maps (2020), the majority of the Project site is located within Flood Zone D; that is, within an area with Flood Risk due to a nearby Levee approximately 3.5 miles northwest of the Project site. Project development would replace much of the Area A natural surface with impervious surfaces and would entail development of improved drainage. The Project EIR indicates that Project improvements and compliance with City of Palmdale regulations would ensure potential impacts related to a flood hazard would be maintained at a Less Than Significant level.
Policy SE-4.1: Floodplain Management Ordinance. Require development in designated flood hazard areas to meet standards outlined in the City's Floodplain Management Ordinance and related criteria in the City's Engineering Design Standards.	CONSISTENT. According to the FEMA Flood Zone Maps (2020), the majority of the Project site is located within Flood Zone D; that is, within an area with Flood Risk due to a nearby Levee approximately 3.5 miles northwest of the Project site. Project development would replace much of the Area A natural surface with impervious surfaces and

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	would entail development of improved drainage. The Project EIR indicates that Project improvements and compliance with City of Palmdale regulations would ensure potential impacts related to a flood hazard would be maintained at a Less Than Significant level.
Policy SE-4.2: Drainage Management Plan. Implement the City's drainage management plan through the capital improvement program and development review process.	CONSISTENT. Project grading/building plans and tentative tract maps will include drainage facilities. The City of Palmdale staff will review these plans, which must be approved prior to commencement of Project development.
Policy SE-4.3: National Pollutant Discharge Elimination System and Low Impact Development. Ensure that new development meets National Pollutant Discharge Elimination System (NPDES) and associated Low Impact Development (LID) standards that limit peak runoff to pre-development rates.	CONSISTENT. Project grading/building plans and tentative tract maps will be required to comply with NPDES and LID standards. The City of Palmdale staff will review these plans, which must be approved prior to commencement of Project development. Peak storm runoff will be required not to exceed pre-development runoff rates.
Policy SE-5.1: Evaluate Inundation Hazards. As appropriate, evaluate inundation hazards related to the potential rupture of the following when reviewing development proposals: California Aqueduct, Palmdale Dam, Littlerock Dams and/or proposed basins.	CONSISTENT. According to the FEMA Flood Zone Maps (2020), the majority of the Project site is located within Flood Zone D; that is, within an area with Flood Risk due to a nearby Levee approximately 3.5 miles northwest of the Project site. Project development would replace much of the Area A natural surface with impervious surfaces and would entail development of improved drainage. The Project EIR indicates that Project improvements and compliance with City of Palmdale regulations would ensure potential impacts related to a flood hazard would be maintained at a Less Than Significant level.
GOAL SE-7: Ensure Safe Evacuation of Residents in the Event of an Emergency Requiring Evacuation.	CONSISTENT. Evacuation/emergency access routes to the Quail Valley community will be via "A" Street, extending into the Project site from Avenue S and the existing publicly dedicated Tovey Avenue.
Policy SE-7.5: Evacuation in VHFSZ and HRSZ.	CONSISTENT. Evacuation/emergency access routes to the Quail Valley community will be via

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Require developers proposing development on properties within VHFSZ and HFSZ areas to evaluate and provide adequate evacuation routes.	"A" Street, extending into the Project site from Avenue S and the existing publicly dedicated Tovey Avenue.
Policy SE-8.4: Legible Signs. Require all residences and businesses to maintain visible and clearly legible signs and/or street numbers to shorten the response times of emergency personnel.	CONSISTENT. This will be a requirement of Certificate of Occupancy issuance for all Project residences.
SUSTAINABILITY, CLIMATE ACTION, AND RESILIENCE ELEMENT	
GOAL SCR-3: Green and Decarbonized Buildings for New Construction and Major Renovations.	CONSISTENT. Quail Valley Project developer(s) will comply will all State required Title 24 measures and may comply with any Title 24 voluntary measures.
Policy SCR-3.1: Energy Efficient New Construction. Integrate CALGreen Tier 1 and Tier 2 green building and energy efficiency standards into new construction and major remodels.	CONSISTENT. Quail Valley Project developer(s) will incorporate all mandatory CALGreen Tier 1 and Tier 2 energy efficiency standards into new residences. In addition, the developer(s) may choose to incorporate selected recommended measures into construction of new residences.
Policy SCR-3.3: Solar and Storage. Require installation of photovoltaic panels and battery storage on all residential new construction and nonresidential new construction over 5,000 sq. ft.	CONSISTENT. Future residences in Quail Valley will be equipped with connections for photovoltaic panels, as mandated by State and City of Palmdale requirements.
GOAL SCR-4: Reduced Greenhouse Gas Emissions from Transportation (SB 379, EO N-79-20)	<p>CONSISTENT. Quail Valley Project development and operation will result in generation of greenhouse gas emissions from construction, maintenance, and residential vehicles. However, the generated greenhouse gas emissions levels will be well below AVAQMD annual emission thresholds.</p> <p>The Greenhouse Gas Assessments prepared for the Project accounts for applicable regulations in the Project greenhouse gas emissions calculations. Low Carbon Fuel Standards and State Renewable Portfolio Standards are in effect for the Project. Project operational CO₂ emissions were identified to be below the AVAQMD significance threshold of 100,000 metric tons annually for CO₂Eq.</p>

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Policy SCR-4.1: Bike Facilities. Promote bicycle use with new private development projects through requirements for bicycle parking, lockers and showers, bike share facilities, and when feasible, connections to City bike lanes.	CONDITIONALLY CONSISTENT. The Quail Valley Project internal roadway system will be comprised of public streets consisting of a series of curvilinear connector, local, and rural streets, as well as traffic calming roundabouts that will serve the community's various neighborhoods. The Project frontage along Avenue S will feature an 8-foot-wide asphalt bicycle trail extending 1,180 linear feet that will continue into the Project at the main entry roadway along "A: Street and subsequently throughout interior loop roads within the community. The bicycle trail also network provides a connection to the Antelope Valley Backbone Trail. In addition, there are multiple trail options for bicycle traffic to flow around the central Project central circle area. It is unknown at this time whether, and what, bicycle amenities or support facilities will be provided as part of the Quail Valley Project.
Policy SCR-4.7: Pedestrian and Cyclist Safety. Promote bicycle and pedestrian modes of travel by promoting pedestrian and cyclist safety.	CONSISTENT. Pedestrian and bicycle safety will be maintained via separation of the pedestrian and bicycle trails from Project internal vehicular roadways.
GOAL SCR-5: Increased Resource Capture and Reduced Waste Sent to Landfills (SB 1383).	CONSISTENT. The Antelope Valley Landfill, which has a total area of 185 (future) acres, will accommodate Quail Valley Project generated solid waste. Project development will comply with all State and City regulations pertaining to limitation of construction-generated solid waste recycling.
GOAL SCR-6: Safe and Secure Water Supply.	CONSISTENT. As explained previously, the Palmdale Water District has indicated it will be able to provide required water supply to the Quail Valley Project.
Policy SCR-6.3: Low-Water Use Plant List. Implement the City's landscape plant list and use of low-water plants in new or renovated landscaped areas.	CONSISTENT. The Quail Valley Planned Development Plan Plant Palette establishes a definitive, comprehensive list of tree, shrub, desert accent, grass, ground cover, perennial, and vine species that emphasize use of drought tolerant and desert themed species.

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Policy SCR-7.1: Tree Planting in Public Spaces. Plant additional trees on streets, parks, and other public spaces to sequester carbon, provide shade, contribute to stormwater management, provide habitat, and enhance community character.	CONSISTENT. The Quail Valley Project will plant trees along internal and perimeter roadways, within and adjacent to the QV Public Park, and other appropriate locations within the community to assist in management of stormwater, provide natural habitat for bird species, and enhance the aesthetic character of the Quail Valley community.
Policy SCR-7.2: Preferred Tree and Plant List. Establish a preferred tree list of species appropriate for the urban forest which are more resilient to drought, heat, and pests. Prioritize native plants and pollinator-friendly plants.	CONSISTENT. The Quail Valley Planned Development Plan Plant Palette establishes a definitive, comprehensive list of tree, shrub, desert accent, grass, ground cover, perennial, and vine species that emphasize use of drought tolerant and desert themed species.
Policy SCR-7.4: Green Infrastructure. Integrate green infrastructure stormwater management practices into the design of open spaces and public rights-of-way.	CONDITIONALLY CONSISTENT. Quail Valley developer(s) will provide green stormwater management as required by the City.
Policy SCR-7.5: Cool Pavement. Incorporate cool pavement practices into street maintenance activities to reduce the urban heat island effect.	CONDITIONALLY CONSISTENT. Quail Valley developer(s) will incorporate cool pavement practices into street maintenance as required by the City.
Policy SCR-9.2: Acknowledge Indigenous History. Acknowledge and celebrate the indigenous history and tradition of the area now known as Palmdale.	CONSISTENT. The Cultural and Paleontological Assessment conducted for the Project site indicated there were two records of historical/archaeological sites within one-quarter mile of the Project site, and 15 records between one-half mile and one mile of the Project site. There is one previously recorded undocumented prehistoric archaeological site on the Project site, consisting of a Tribal Cultural Resource and a sacred place consisting of 38 defined cupules and a meandering groove on several sides of a rock outcrop. Pecked petroglyphs, which are present in this resource site are very scarce in the western Mojave Desert and surrounding mountains.

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	The Quail Valley development footprint will not extend into this resource.
AIR QUALITY ELEMENT	
GOAL AQ-1: Minimize Local Air Pollution Caused by Motor Vehicles.	CONSISTENT. Quail Valley Project operational emissions will be below Antelope Valley Air Quality Management District (AVAQMD) significance thresholds.
Policy AQ-1-8: Environmentally Review New Development. Use the environmental review process for new development applications to assess and, as necessary, mitigate the impacts of new development related to increased vehicle miles traveled.	CONSISTENT. The Quail Valley Environmental Impact Report (EIR) indicates short-term air quality impacts related to Nitrogen Oxide (NO _x) emissions will result in a Significant and Unavoidable Impact. Specified Mitigation will reduce emissions, but not to the extent the emissions will be less than (AVAQMD) thresholds.
GOAL AQ-2: Minimize Particulates Less than 10 Microns in Size (PM10) and Minimizes Activities that Generate Dust.	CONSISTENT. Although short-term air quality impacts related to Nitrogen Oxide (NO _x) emissions will result in a Significant and Unavoidable Impact, implementation of Mitigation Measures that require compliance with AVAQMD Rules 402 and 403 will reduce short-term air quality impacts but not to a less than significant level.
Policy AQ-2-2: Construction Site Requirements. Require measures at construction sites to prevent deposition of soil onto public right-of-way.	CONSISTENT. The City of Palmdale staff will require avoidance of placing soil onto public roadways and rights-of-way.
Policy AQ-2.3: Natural Contours. Encourage developers to maintain natural contours to the greatest degree possible, to eliminate the need for extensive land clearing, blasting, ground excavation, grading and cut and fill operations.	CONSISTENT. The Quail Valley Project incorporates design elements that minimize impacts to sensitive environmental resources and minimizes visual impacts to hillsides on the Project site. Portions of Area A and the entirety of Area B will be preserved permanently as undeveloped land. The grading design will limit heights of manufactured slopes to the extent feasible within Area A to mimic existing natural contours of land within Area A.
Policy AQ-2-4: Erosion and Dust Control Measures. Require erosion and dust control measures for new construction, including covering soil with straw mats or use of chemical soil and dust binders during site	CONSISTENT. Project development will comply with AVAQMD Rules 402 and 403, which will assist in reducing grading and construction generated dust and other short-term air pollutant emissions. The Project EIR, Section 4.3 (Air Quality) contains Required Best Available Control

LAND USE AND COMMUNITY DESIGN ELEMENT	
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grading, followed by hydroseeding and watering disturbed construction areas as soon as possible after grading to prevent fugitive dust.	Measures, Contingency Control Measures for Large Operations, and Track Out Control Options that should be followed during Project development and Project operation.
Policy AQ-3-3: Complete Streets. Design a more effective street system by emphasizing complete streets which accommodate all modes of transportation.	CONSISTENT. As indicated above, Project internal roadways will be designed to accommodate bicycle traffic and rights-of-way will accommodate an extensive pedestrian circulation system.
Policy AQ-3-4: Reduce Reactive Organic Gas. Reduce reactive organic gas (ROG) and particulate emissions from building materials and construction methods, by promoting the use of nonsolvent-based, high-solid, or water-based coatings, and requiring compliance with all pertinent AVAQMD rules.	CONSISTENT. Project development will comply with AVAQMD Rules 402 and 403, which will assist in reducing grading and construction generated dust and other short-term air pollutant emissions. The Project EIR, Section 4.3 (Air Quality) contains Required Best Available Control Measures, Contingency Control Measures for Large Operations, and Track Out Control Options that should be followed during Project development and Project operation.
Policy AQ-3-5: Minimize Emissions. Minimize emissions of toxic air contaminants that contribute to climate change and ozone depletion, and that create potential health risks for residents, workers, and visitors.	CONSISTENT. The Air Quality Section of the Project EIR indicates motor vehicles will be the primary source of air pollution during Project operation. The Average Daily Trip calculations for Project developed residences will result in operational emissions at levels below AVAQMD significance thresholds.
Policy AQ-3-7: Environmentally Review New Development Applications. Through the environmental review process for new development applications, ensure that emissions of toxic air contaminants are minimized and that any significant health effects associated with such contaminants are appropriately mitigated.	CONSISTENT. The Quail Valley EIR Air Quality Section (4.3) contains a thorough analysis of the existing air quality in the Project vicinity and of the potential impacts to air quality from Project development activities (grading, site preparation, building and infrastructure construction) and Project operation activities (particularly mobile sources of air contaminant). As noted above, EIR Mitigation Measures are proposed to decrease potential impacts. However, short term (Project development) impacts pertaining to NO _x will remain Significant and Unavoidable and thereby require a Statement of Overriding Considerations.
GOAL AQ-4: Reduce Air Pollution Caused by Energy Consumption.	CONSISTENT. The Quail Valley EIR states that compliance with City of Palmdale General Plan

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	policies, City of Palmdale Energy Plan Goals and Measures, the CBC, and City of Palmdale Standard Conditions would contribute to ensuring Project development and operation impacts pertaining to Energy, including those related to air pollution, would be reduced to less than significant levels. The Quail Valley Project will implement energy-saving features and operational programs, consistent with energy reduction measures established in the City of Palmdale Energy Action Plan which will be incorporated into all appropriate areas developed pursuant to the Quail Valley Planned Development Plan.
Policy AQ-4-2: Energy Conservation. Encourage energy conservation from all sectors of the community by promoting and/or requiring the use of energy efficient appliances, processes, and equipment, and promoting energy audits and retrofits of existing structures.	CONSISTENT. Future residences in Quail Valley will comply with all State requirements pertaining to energy efficiency and other Title 24 measures.
Policy AQ-4-4: Solar Energy. Require new developments to minimize obstruction of direct sunlight for solar energy systems on adjacent properties.	CONSISTENT. Future residences in Quail Valley will be sufficiently distant from adjacent residential properties and will not provide development to the west or southwest of the Project site; thereby, minimization of direct sunlight for solar energy systems on adjacent properties will not be impacted.
NOISE ELEMENT	
GOAL N-1: Minimize Resident Exposure to Excessive Noise.	CONSISTENT. Quail Valley residences will be set back approximately 145 feet from the centerline of Avenue S. The unmitigated traffic noise level at this distance is projected to be approximately 65.1 dB CNEL, which is 0.1 dB in excess of the exterior noise level standard in the City. The Project EIR contains a Mitigation Measure (MM-NOI-2) that would require the Project developer(s) to submit an acoustical analysis or a detailed acoustical study (prepared by a qualified acoustical consultant) prior to issuance of Building Permits. The analysis shall describe and quantify noise sources that would impact lots on the north side of the Project adjacent to Avenue S and measures required to met the

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	<p>appropriate exterior noise standard at these lots. The acoustical analysis requirements “shall be implemented at identified stages of Project development or Project operation.</p> <p>Future developers will be required to install appropriate noise reduction construction techniques, as City staff may determine necessary or advisable to ensure City standards for interior noise levels are maintained.</p>
<p>Policy N-1.2: Restrict Land Uses. Restrict noise sensitive land uses near existing or future air, rail, or highway transportation noise sources unless mitigation measures have been incorporated into the design of the project to reduce the noise levels at the noise sensitive land use to less than 65 dBA CNEL at all exterior living spaces including but not limited to, single-family yards and multi-family patios, balconies, pool areas, cook-out areas and related private recreation areas.</p>	<p>CONSISTENT. Quail Valley residences will be set back approximately 145 feet from the centerline of Avenue S. The unmitigated traffic noise level at this distance is projected to be approximately 65.1 dB CNEL, which is 0.1 dB in excess of the exterior noise level standard in the City. The Project EIR contains a Mitigation Measure (MM-NOI-2) that would require the Project developer(s) to submit an acoustical analysis or a detailed acoustical study (prepared by a qualified acoustical consultant) prior to issuance of Building Permits. The analysis shall describe and quantify noise sources that would impact lots on the north side of the Project adjacent to Avenue S and measures required to meet the appropriate exterior noise standard at these lots. The acoustical analysis requirements “shall be implemented at identified stages of Project development or Project operation.</p> <p>Future developers will be required to install appropriate noise reduction construction techniques, as City staff may determine necessary or advisable to ensure City standards for interior noise levels are maintained.</p>
<p>Policy N-1.4: Noise Abatement strategies. Explore the use of noise abatement strategies such as natural barriers, sound walls, and other buffers to mitigate excessive noise.</p>	<p>CONSISTENT. The Project EIR contains a Mitigation Measure (MM-NOI-2) that would require the Project developer(s) to submit an acoustical analysis or a detailed acoustical study (prepared by a qualified acoustical consultant) prior to issuance of Building Permits. The analysis shall describe and quantify noise sources that would impact lots on the</p>

LAND USE AND COMMUNITY DESIGN ELEMENT	
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	<p>north side of the Project adjacent to Avenue S and measures required to meet the appropriate exterior noise standard at these lots. The acoustical analysis requirements “shall be implemented at identified stages of Project development or Project operation.</p> <p>Future developers will be required to install appropriate noise reduction construction techniques, as City staff may determine necessary or advisable to ensure City standards for interior noise levels are maintained.</p>
<p>Policy N-2.2: Restrict Construction Activities.</p> <p>Restrict construction activities in the vicinity of sensitive receptors during the evening, early morning, and weekends and holidays.</p>	<p>CONSISTENT. All Project construction activities within 200 feet of residences on the westerly side of Tovey Avenue will be limited to hours between 7:00 a.m. and 7:00 p.m., Monday through Saturday. Construction activities for the balance of the Project will be limited to the hours of 6:30 a.m. and 8:00 p.m., Monday through Saturday. Construction activities shall be prohibited during all other time periods and all day on Sundays and legal holidays. Development contractors also shall conduct construction activities so maximum noise levels at affected buildings will not exceed those listed in the County of Los Angeles Noise Ordinance Section 12.08.440(B)(1).</p>
<p>Policy N-2-3: Maintain Acceptable Noise.</p> <p>Utilize any or all the following measures to maintain acceptable noise environments throughout the city:</p> <ul style="list-style-type: none"> • Control of noise at its source, including noise barriers and other muffling devices built into the noise source. • Provision of buffer areas and/or wide setbacks between the noise source and other development. • Reduction of densities, where practical, adjacent to the noise source (freeway, airport, railroad). 	<p>CONSISTENT. Project developers will use all measures the City of Palmdale requires to maintain acceptable noise environments in the Project vicinity.</p>

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<ul style="list-style-type: none"> • Use of sound insulation, blank walls, double paned windows and other design or architectural techniques to reduce interior noise levels. • Designation of appropriate land uses adjacent to known noise sources. 	
HOUSING ELEMENT	
<p>Goal 1: Promote the construction of a variety of residential development opportunities for all income groups.</p> <ul style="list-style-type: none"> • Encourage the production of housing for all segments of the City's population, including all income levels (including extremely low-income households) and those with special needs. • Encourage a variety of housing types such as single-family attached (townhomes), multi-family units, planned unit developments, mixed-use housing, and other housing types to fulfill regional housing needs. • Encourage the development of new affordable units through the provision of incentives. • Encourage the development of housing that is affordable to lower income groups in areas well served by public transportation, schools, retail, and other services. 	<p>CONSISTENT. The Quail Valley Project is a residential project designed with five different lot sizes that will accommodate a broad range of housing types. The five lot sizes will have the following minimum areas:</p> <ul style="list-style-type: none"> • 3,200 square feet; • 7,000 square feet; • 7,500 square feet; • 9,000 square feet; • 43,560 square feet; and, • 217,800 square feet. <p>There is also a provision to allow clustered or attached housing in one of the development areas.</p>
<p>Goal 5: Facilitate adequate housing for households with special needs</p> <ul style="list-style-type: none"> • Permit a variety of housing types for seniors including dependent 	<p>CONDITIONALLY CONSISTENT. This will be determined during future development and according to market demand.</p>

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<p>housing units and congregate housing with supportive services.</p> <ul style="list-style-type: none"> Recognize the unique characteristics of elderly and disabled households and address the special needs of these households. Establish and maintain standards for units designated as senior units to ensure that they are accessible and convenient for older persons and persons with disabilities. 	
<p>Goal 7: Increase access to safe and adequate housing for people with disabilities</p> <ul style="list-style-type: none"> Ensure access for the disabled in residential, commercial, and public structures. Educate property managers about the reasonable accommodation provisions of the American s with Disabilities Act and Federal and State fair housing laws through the Partners Against Crime program and the fair housing services provider. 	<p>CONDITIONALLY CONSISTENT. This will be determined during future development and according to market demand.</p>
<p>Goal 8: Implement energy and water conservation measures</p> <ul style="list-style-type: none"> Ensure that energy and water conservation measures are included in all new development and redevelopment projects using an energy conservation checklist. Inform the public about retrofitting their homes with energy and water conservation measures. Incorporate native desert vegetation as a condition of 	<p>CONSISTENT. Quail Valley Project development will comply with all State and City mandates pertaining to energy and water conservation. In particular, the Quail Valley Plant Palette emphasizes use of native desert themed trees, shrubs, desert accents, grass, ground cover, perennial, and vine species.</p>

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approval for all proposed housing projects.	
Goal 10: Promote neighborhood versatility by encouraging a mix of new housing alternatives to increase affordability and promote home ownership <ul style="list-style-type: none"> • Encourage voluntary inclusionary housing by offering incentives to developers. • Evaluate the feasibility of small lots, reduced setbacks, or other modifications to reduce cost of development. • Encourage mixed-use housing in designated areas along transportation corridors and other commercial areas. 	CONDITIONALLY CONSISTENT. This will be determined during future development and according to market demand.

Appendix B

Notice of Preparation



Subject: Notice of Preparation of a Draft Environmental Impact Report
Project Title: Quail Valley Planned Development
Project Location: The Project site is located on the south side of Avenue S, approximately 1.2 miles west of California State Route 14
Lead Agency: City of Palmdale
Date: October 23, 2018

Pursuant to Section 15051 of the *California Environmental Quality Act (CEQA) Guidelines*, the City of Palmdale is the Lead Agency. Quail Valley is located on the south side of Avenue S, approximately 1.2 miles west of California State Route 14 within unincorporated Los Angeles County south of the City of Palmdale and within the City of Palmdale sphere of influence.

Any comments provided should identify specific topics of environmental concern and your agency's reason for suggesting the study of these topics in the EIR. The following agency will be involved as lead agency or key responsible agency in the process:

Lead Agency:

City of Palmdale
Planning Division
38250 Sierra Highway
Palmdale, CA 93550
Contact: Megan Taggart, Senior Planner
Telephone: 661-267-5200

This Notice of Preparation (NOP) is soliciting the views of your agency regarding the scope and content of the environmental information, which is germane to your agency's statutory responsibilities in connection with the proposed project. Your agency will need to use the EIR prepared by this agency when considering your permit or other approval(s) for the project.

The project description and location, and a preliminary list of the environmental topics identified for study in the EIR are attached to this notice. If any topics of concern to your agency have already been identified for analysis, your agency need not provide a response to this notice.

Due to the time limits mandated by state law, your response must be sent to the City at the earliest possible date but not later than 30 days after publication of this notice, October 23, 2018. Please send your written response to Megan Taggart, Senior Planner, at the above address. Agency responses to this NOP should include the name of a contact person within the commenting agency.

Project Description (brief): The City of Palmdale has received a request to develop approximately 878.1 acres directly south of the City of Palmdale, within the City's Sphere of Influence, in the unincorporated area of Los Angeles County. The Project site is located on the south side of Avenue S, approximately 1.2 miles west of State Route 14. At buildout, the project would contain a maximum of 730 residential lots, an approximately 3.6-acre HOA maintained amenity center, an approximately 23-acre greenbelt and trail system, approximately 185 acres of open space in the rolling valley area and approximately 211 acres of adjacent hillsides to be preserved as natural open space. The proposed Project would include the necessary infrastructure improvements, including off-site sanitary and water improvements and an annexation of the property and adjacent areas to the City of Palmdale. The project site is undeveloped and vacant land characterized by a mix of valley floor and steep terrain. The subject property is bordered by an existing housing development to the northeast, while rural residential uses are scattered along the easterly and southeasterly boundary. The City Ranch Specific Plan development is located northwest of the site along Avenue S. Also found to the north and east is the California Aqueduct. Primary access to the Project is proposed from Avenue S. Secondary access is at Tovey Avenue.

Date: 10-16-18

Signature: _____



Title:

**ROB BRUCE
Planning Manager
City of Palmdale**

Reference: California Code of Regulations, Title 14 (*State CEQA Guidelines*), Sections 15082(a), 15103, and 15350-87

CITY OF PALMDALE INITIAL STUDY AND ENVIRONMENTAL EVALUATION

1. Project Title:

Quail Valley Planned Development

2. Lead Agency Name and Address:

City of Palmdale
Economic and Community Development Department
Planning Division
38250 Sierra Highway
Palmdale, CA 93550

Attn: Megan Taggart, Senior Planner
661.267.5200
mtaggart@cityofpalmdale.org

3. Project Sponsor's Name and Address:

Quail Valley, LLC, 212 South Palm Avenue, Suite 200 Alhambra, CA, 91801; contact Steve Jenkins, Director of Land Development

4. Project Location:

The Project site is located on the south side of Avenue S, approximately 1.2 miles west of California State Route 14.

5. General Plan Designations:

Existing Los Angeles County General Plan 2035: Portions of Project site designated R-L-1 (one dwelling unit per gross acre), RL2 (one dwelling unit per two gross acres), or RL10 (one dwelling unit per ten gross acres)

Existing City of Palmdale Pre-Annexation: LDR (Low Density Residential; one dwelling unit/acre) (Reference Exhibit 1-3)

Proposed City of Palmdale: LDR (Low Density Residential; one dwelling unit/acre); Portions of Area A SFR-1 (Single-Family Residential; 0-2 dwelling units/acre) (Reference Exhibit 1-4)

6. Zoning Designations:

Existing Los Angeles County Zoning: Area A: A-1-1 and A-1-2 (Light Agriculture); Area B: A-2-2 (Heavy Agriculture)

Existing City of Palmdale Pre-Annexation: R-1-1 PZ (Pre-zoning Single-Family Residential – one dwelling unit/acre) (Reference Exhibit 1-3)

Proposed: R-1-1 (Single-Family Residential) and portions of Area A: R-1-7,000 (Single-Family Residential) (Reference Exhibit 1-4)

7. Project Characteristics:

Existing Project Site

Quail Valley is located on the south side of Avenue S, approximately 1.2 miles west of California State Route 14 within unincorporated Los Angeles County south of the City of Palmdale and within the City of Palmdale sphere of influence. The location of the Quail Valley Project (Project) site is depicted in Exhibits 1-1 (Project Location Map) and 1-2 (Aerial Map). The majority of the property surrounding the vacant Project site is undeveloped. However, there are a small group of single-family residences northeast of the Project site at Tovey Avenue and partially developed parcels along the easterly and southerly edges in the Anaverde Hills area. Anaverde (i.e. City Ranch Specific Plan) is farther west along Avenue S, northwesterly of the Project site. In addition, the California Aqueduct is north and east of the Project site.

Easements (Existing/Pending)

Exhibit 2-3 (Composite Map of Existing Easements) depicts the numerous existing easements that traverse the development area of the Quail Valley Project site. The majority of the easements involve power poles, pole lines, utility easements, and associated ingress and egress rights for public utilities. The easements affecting the northwest edge of the Project site near Avenue S include the following: an easement related to improvement of Avenue S (the Anaverde easement); a Southern California Gas Company easement; a City of Los Angeles easement; a County of Los Angeles easement; and, a Southern California Edison Company easement.

Existing Land Use and Zoning Designations

The Project site currently is located within unincorporated Los Angeles County and thereby is assigned Los Angeles County General Plan Land Use and Zoning designations. In addition, the entire Project site is within the City of Palmdale Sphere of Influence and thereby carries City of Palmdale Land Use and Pre-Zoning designations. The Los Angeles County 2035 General Plan assigns land use designations of RL1 (one dwelling unit per one acre) RL2 (one dwelling unit per 2 acres) and RL10 (one dwelling unit per 10 acres) for portions of the Project site. Existing Los Angeles County zoning for the Project site is A-1-1 and A-1-2 (Light Agriculture) for Area A and A-2-2 (Heavy Agriculture) for Area B. City of Palmdale pre-annexation General Plan designation for the Project site is LDR (Low Density Residential); City pre-zoning for the Project

site is R-1-1 PZ (Single-Family Residential, one dwelling unit per acre). Reference Exhibit 1-3 (Existing Land Use & Zoning), which depicts these designations.

Annexation

The City of Palmdale is proposing to annex the entire Quail Valley Project site, together with various adjacent parcels, consistent with the City Sphere of Influence/planning area boundary. The Quail Valley Project site is not contiguous with the City corporate boundary, although Avenue S is owned by the City and is directly adjacent to the Project site. Exhibit 1-5 (Annexation Boundary) depicts the properties for annexation. The proposed annexation boundary currently includes 178 assessor parcels, 53 parcels of which are within the Quail Valley Project site. The entire annexation area occupies approximately 1,285 acres. There are existing residences within the proposed annexation area northwesterly of the Avenue S/7th Street West intersection. The balance of the annexation area is vacant of development. Annexation of the 178 parcels would provide continuity and avoid creation of an “island” of unincorporated Los Angeles County territory.

Development Concept

The entire Project site is comprised of two primary land areas – Area A (primarily Tentative Tract Map 65813) and Area B. Area A occupies 667.5 acres in the northerly Project site adjacent to Avenue S and will contain the developed portion of the Project site; Area B comprises 210.6 acres in the higher elevations of the foothills to the ridgeline of the Sierra Pelona Mountains and will be preserved in its entirety as undisturbed.

The Quail Valley Project (Project) involves a General Plan Amendment to change the land use designation of approximately 600.4 acres within the Area A (generally westerly of Tovey Avenue) from LDR (Low Density Residential, 1 dwelling unit per acre) to SFR-1 (Single-Family Residential, 0-2 dwelling units per acre). The proposed one-acre rural lots in the northeast and the non-contiguous southwest triangle piece with Area A will remain LDR (reference Exhibit 1-4 (Proposed Land Use & Zoning, which depicts these designations). Area A further involves a Zone Change from a City pre-zone designation of R-1-1 PZ (Single-Family Residential: one-acre minimum lot size) to R-1-1 (Single-Family Residential) and to R-1-7,000 (Single-Family Residential, 7,000 square foot minimum lot size). In addition, the existing City of Palmdale General Plan land use designation for the 210.6-acre Area B is proposed to remain unchanged (R-1-1), with a density transfer (of 62.9 allowable residential units) to Area A. This will ensure Area B will remain as a long-term preservation area. This also allows Area A to achieve a clustered residential development that will preserve hillsides and mountain vistas pursuant to the City of Palmdale Hillside Management Ordinance.

The Project proposes to develop a master planned, gated community of 730 single-family residences on 878.1 acres. This includes 647 single-family lots, 51 equestrian estate lots, 3 large rural lots, a 3.6-acre community recreation facility, and an extensive 23.4-acre greenbelt and trail system. In addition, approximately 10.1 acres are reserved for future development of as many as 28 units (single-family detached, single-family attached, or a combination of both). The Project additionally includes one residual residential lot located at the northwesterly portion of the Project area northerly of Lot 722, depicted on associated Tentative Tract Map 65813.

Exhibit 3-1 (Planned Development Plan) depicts the areas to be subdivided (483 acres) and to remain permanently undeveloped (395.1 acres). The proposed 730 residences will be clustered in the gently rising valley portion of the Project site entirely within the northerly Area A property. There are six lot sizes proposed throughout the Project. Of the proposed 730 dwellings, 28 are planned as future residential units (single-family detached, single-family attached, or a combination of both) to be located south of the community recreation facility and will be constructed according to future market demand. The area for the future 28 units initially will serve as a temporary debris and detention basin. The remaining 395.1 acres of the Project site (45% of the total Project area: Area A and B combined) will be retained as permanently undeveloped area. The following Table 3-1 (Land Use Summary) provides a summary of proposed land uses within the Quail Valley Project.

Project development will occur in approximately 13 phases that will respond in part to changing market demand. Individual phases are comprehensively designed to provide all necessary grading, backbone infrastructure, drainage components, circulation and other elements necessary to support the overall development. Most of the project will be on gravity sewer service. Portions of the project, inclusive of the large rural lots, are intended for onsite wastewater treatment systems. In addition, the Project is divided into geographically located Planning Areas, wherein up to six lot sizes will be located. Exhibit 3-2 (Planning Areas & Lot Sizes) depicts the proposed development area of Quail Valley with Planning Areas overlaid.

TABLE 3-1 – LAND USE SUMMARY			
Land Use	Dwelling Units	Acres	Density (du/acre)
Subdivided Area			
Residential Area (Net Acres)			
Lot Size 1 Single-Family Detached	276	118.2	2.34
Lot Size 2 Single-Family Detached	248	141	1.76
Lot Size 3 Single-Family Detached	123	69.2	1.78
Lot Size 4 Rural Residential	51	64.4	0.79
Lot Size 5 Large Rural Residential	3	16.9	0.18
Lot Size 6 Single-Family Attached	29	10.1	2.87
Sub-Total	701 (730²)	419.8 (48%)	1.67 du/acre
Common Area Lots (Net Acres)			
Community Recreation Facility		3.6	
Greenbelt		23.4	
Archaeological Site		1.1	
Utilities/Detention Basins		35.1	

Sub-Total		63.2 (7%)	
Subdivided Area Total	730	483 (55%)	
Permanently Undeveloped Area³			
Area A³		184.5	
Area B		210.6	
Permanently Undeveloped Area Total		395.1 (45%)	
TOTAL	730 dwelling units	878.1 Gross Acres	0.83 du/acre
¹ These 29 units (Lot Size 1 or Lot Size 6, or combination thereof) depend on market conditions during phasing or thereafter, resulting in a maximum 730 units. Allocation for the residual lot at the northwest edge of PA5B, designated as NAP Exhibit 3-2 is included in the referenced 29 lots. ² The total unit count maximum of 730 units is inclusive of the 29 future units. ³ The Permanently Undeveloped Area in Area A includes an estimated 12,737 linear feet of 5-foot unimproved trails (1.46 acres)			

Circulation Plan

Exhibit 4-1 (Circulation Plan) depicts access points, roadways internal to the Project, and vehicular gates. Primary ingress/egress to the Project will be via a new signalized intersection at Avenue S, approximately 1.2 miles west of State Route I-14. Project development will include modification of the median strip of Avenue S to accept a left-turn lane from westbound lanes. The Project will include a roundabout along Tovey Avenue to slow traffic entering and leaving the Project. Primary and secondary vehicular gates (Reference Exhibit 4-2 – Vehicle Gate Entries) will be located along A Street and recessed into the Project from Avenue S and Tovey Avenue intersections. The internal roadway network serving the Project will be comprised of private streets. The Project street network consists of a series of curvilinear connector and local streets and traffic calming roundabouts.

Trails

The Project will include more than 7.1 miles of new trails and provide connections to the regional Antelope Valley Backbone Trail System and existing dirt roadways extending from the Project site in multiple directions. Further trail detail is contained in Exhibit 3-12 – Conceptual Trail Plan.

Community Greenbelt

The Project will include a 23.4-acre central north/south greenbelt that extends the length of the Project and that will contain a 12-foot wide multi-purpose decomposed granite trail that will provide an enhanced linkage component to the regional Backbone Trail System. The greenbelt is large enough to accommodate active community recreational features such as those indicated in the City of Palmdale General Plan Parks, Recreation and Trails Element. Reference 3-11 (Greenbelt & Amenity Plan) for a depiction of the proposed Community Greenbelt.

Recreational Amenities

A 3.6-acre community recreation facility will be located in central portion of Project site and encircled by the primary loop road. The community recreation facility will contain a community pool and spa surrounded by shade structures, restrooms, Homeowners Association governed indoor facilities, pickleball courts, open play area, and other activity areas, and an off-street parking lot. Reference Exhibit 3-10 (Conceptual Recreation Facility Plan) for a conceptual depiction of the proposed Community Recreation Facility.

Parks and Open Space

The combined community recreation facility (3.6 acres), greenbelt with multi-purpose trail and recreational/exercise elements (23.4 acres) and preserved area (395.1 acres) exceed City of Palmdale park and open space requirements. Assuming 3.55 persons/household (the 2010 Census number of persons per owner-occupied household), Quail Valley would generate a population of 2,591.5 persons. This would equate to a 13-acre parkland requirement for the Quail Valley Project.

Landscape Plan

Exhibit 3-6 (Conceptual Landscape Plan) illustrates the following: proposed landscaped traffic roundabouts; corner enhancements; greenbelt portals; entry features; equestrian entry features; the community recreation center; and, the greenbelt with multi-purpose trail and amenities. The conceptual landscape plant palette generally includes high desert and drought tolerant species.

Fuel Modification

Project design also includes a Fuel Modification Plan that consists of the following three zones: Setback Zone; Irrigation Zone; and, Thinning Zone. The Zones combined extend a minimum 120 feet from the Project's combustible structures.

8. Anticipated Required Discretionary Actions and Entitlements:

General Plan Amendment

Zone Change

Planned Development

Annexation to the City of Palmdale

Tentative Tract Map Approval(s)

Conveyance Tentative Tract Map Approval

City Pre-Annexation and Development Agreement Approval

Subdivision Development Plan

Palmdale Water District Out of District Service Agreement

Local Agency Formation Commission (LAFCO) Approval of Annexation, Service Agreements and Annexation into Service Districts

Wastewater District Annexation (and potential Sphere of Influence Amendment)

California State Department of Fish and Wildlife Permits

Regional Water Quality Control Board Permits

Antelope Valley Air Quality Management District Permits

Landscape Lighting and Maintenance District or Other Assessment District Participation

Community Facilities District Participation

Palmdale School District Mello-Roos Community Facilities District Annexation (if necessary)

9. Surrounding Land Uses and Setting:

Vacant land to the north, west and south. Single-Family Residential development and vacant land to the northeast, east and southeast.

10. Other public agencies whose approval is required:

Los Angeles County Local Agency Formation

Palmdale Water District

California State Department of Fish and Wildlife

Los Angeles County Sanitation District

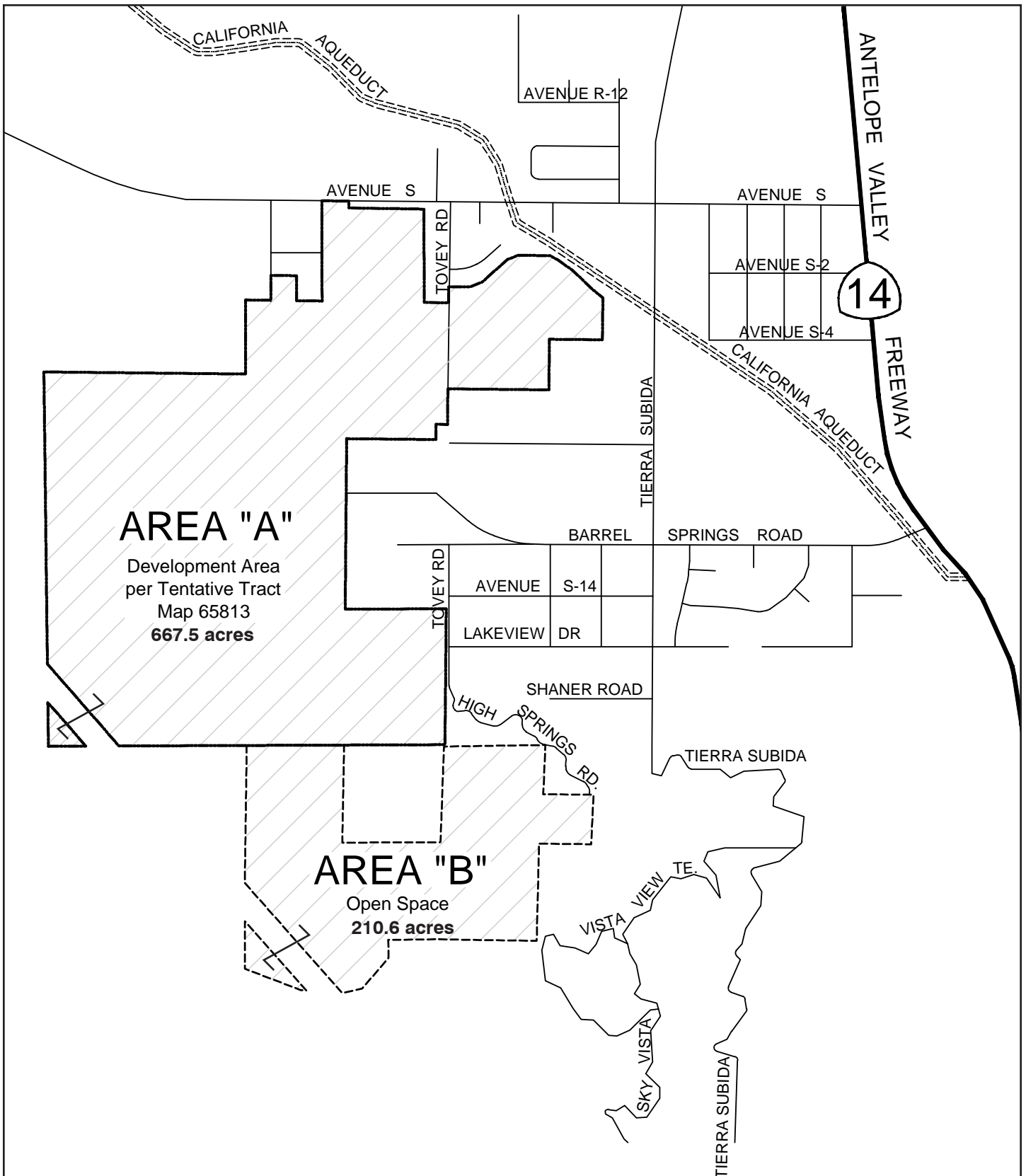
Regional Water Quality Control Board

Antelope Valley Air Quality Management District

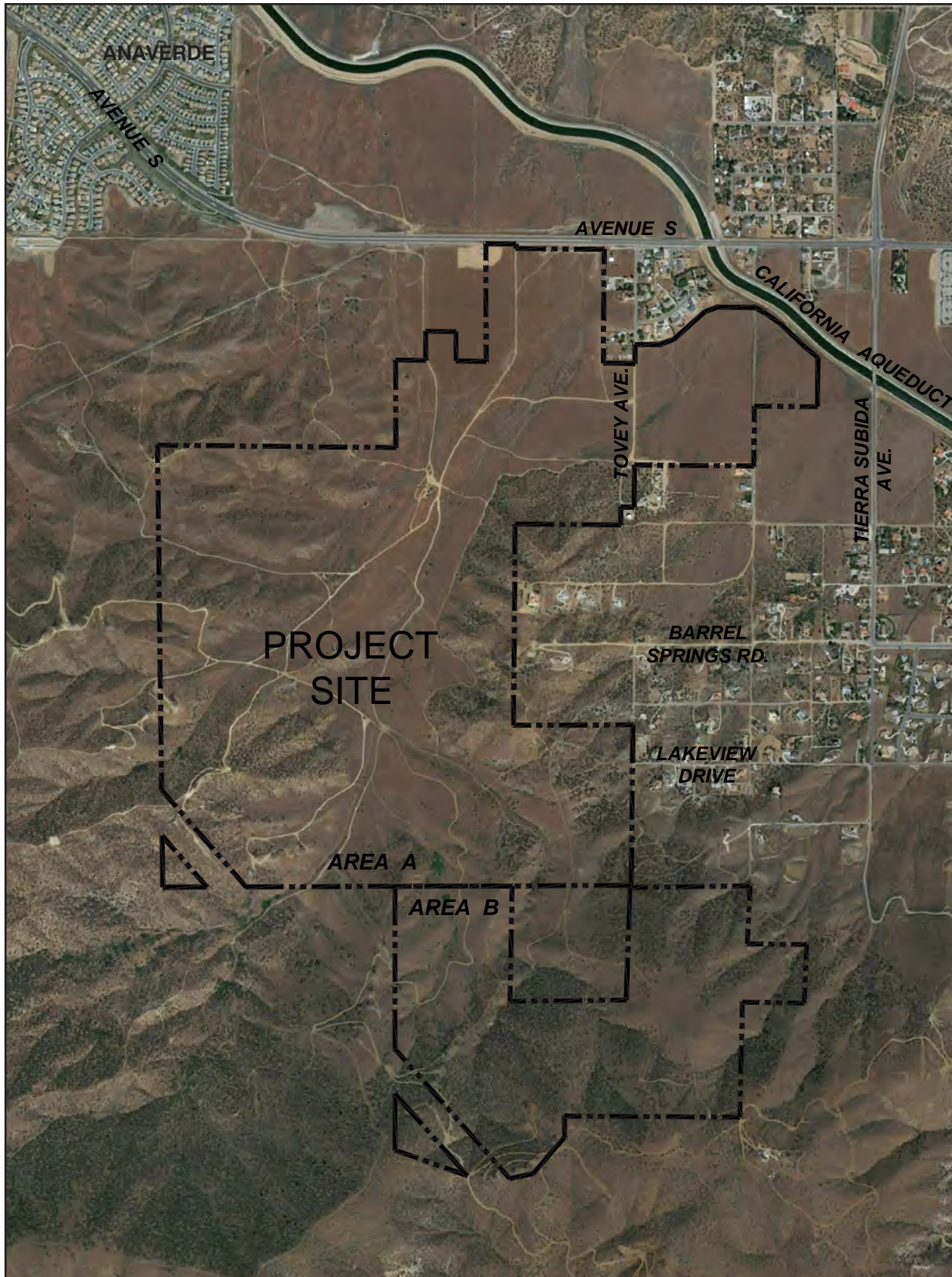
LIST OF EXHIBITS:

- 1-1 Project Location Map
- 1-2 Aerial Map
- 1-3 Existing Land Use & Zoning
- 1-4 Proposed Land Use & Zoning
- 1-5 Annexation Boundary
- 2-3 Composite Map of Existing Easements
- 3-1 Planned Development Plan
- 3-2 Planning Areas & Lot Sizes
- 3-6 Conceptual Landscape Plan
- 3-10 Conceptual Recreation Facility Plan
- 3-11 Greenbelt & Amenity Plan
- 3-12 Conceptual Trail Plan
- 4-1 Circulation Plan
- 4-2 Vehicle Gate Entries

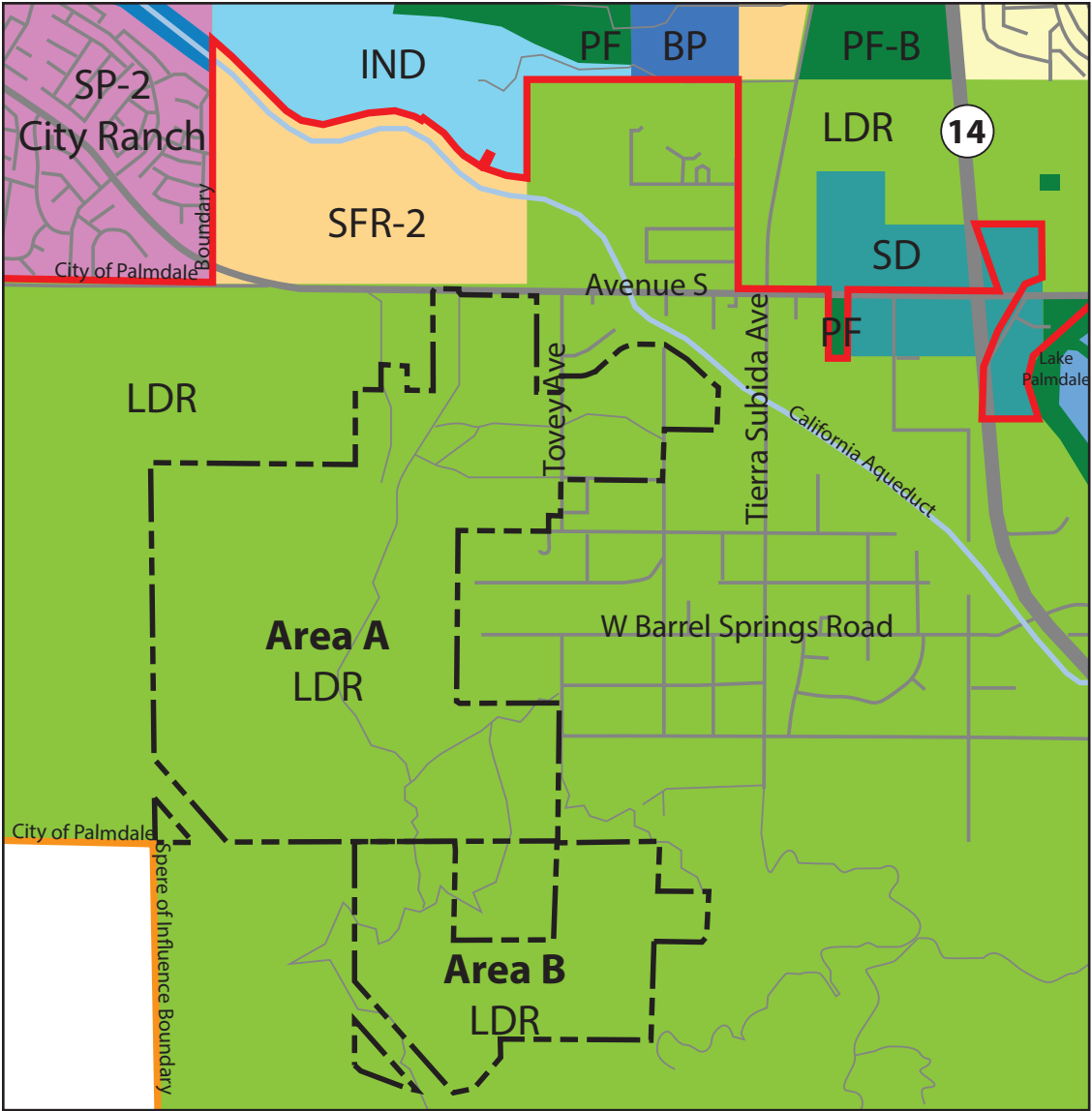
PROJECT LOCATION MAP



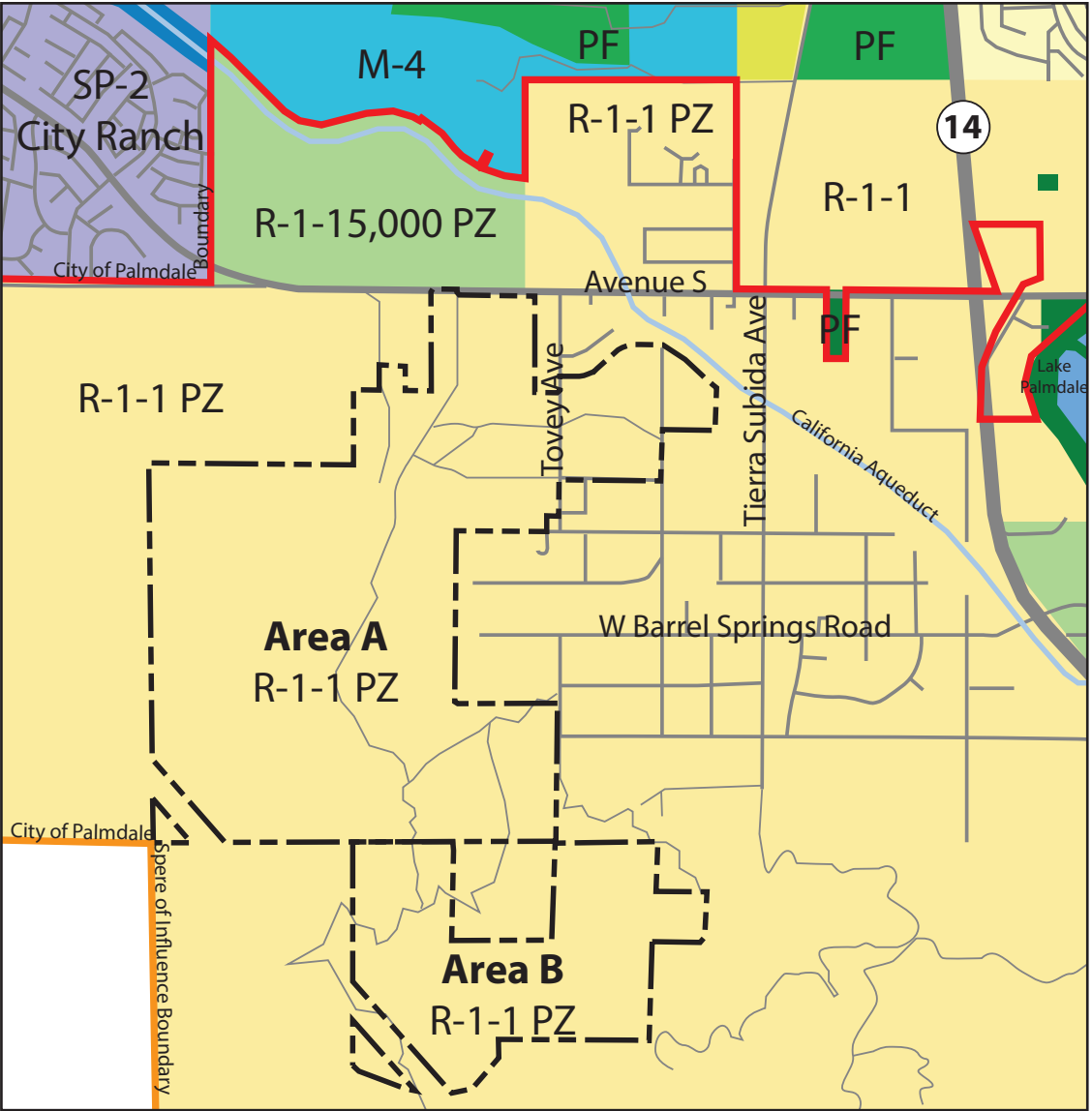
AERIAL MAP



EXISTING LAND USE & ZONING



EXISTING GENERAL PLAN LAND USES



EXISTING ZONING

Legend

- | | |
|---------------------------------|--------------------------|
| LDR (1 du/ac) | SD (Special Development) |
| SFR-2 (0-3 du/ac) | BP (Business Park) |
| SP-2 (City Ranch Specific Plan) | PF (Public Facility) |
| IND (Industrial) | PF-B (Public Facility) |

Legend

- | |
|---|
| R-1-1 PZ (SFR - 1 acre lot min) |
| R-1-15,000 PZ (SFR - 15,000 sqft lot min) |
| SP-2 (City Ranch Specific Plan) |
| M-4 (Planned Industrial) |
| PF (Public Facilities) |

Summary

EXISTING General Plan Land Use

AREA A

- LDR (1du/ac)

AREA B

- LDR (1du/ac)

EXISTING Zoning

AREA A

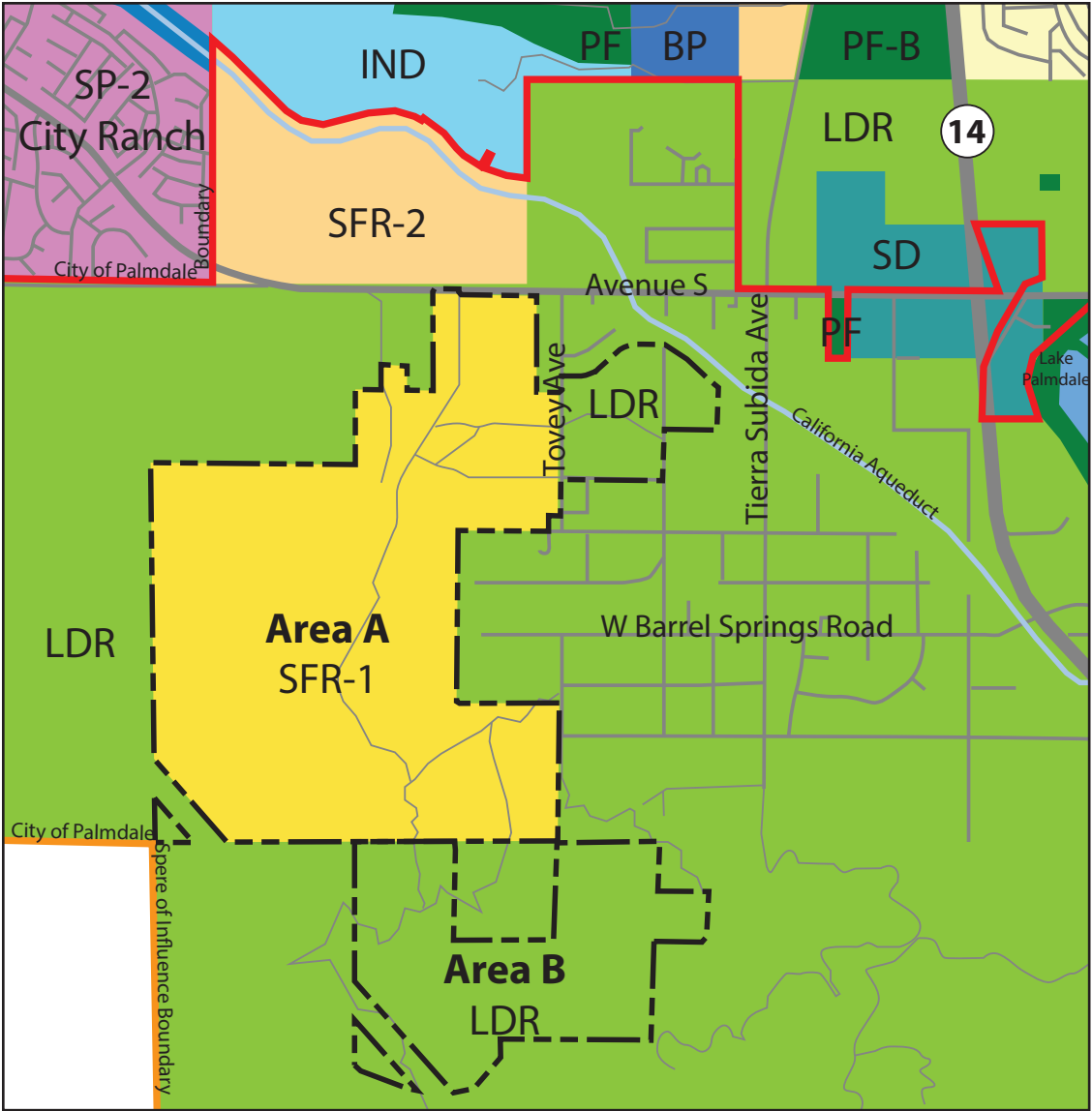
- R-1-1 PZ (SFR - du/ac - 1 acre lot min)

AREA B

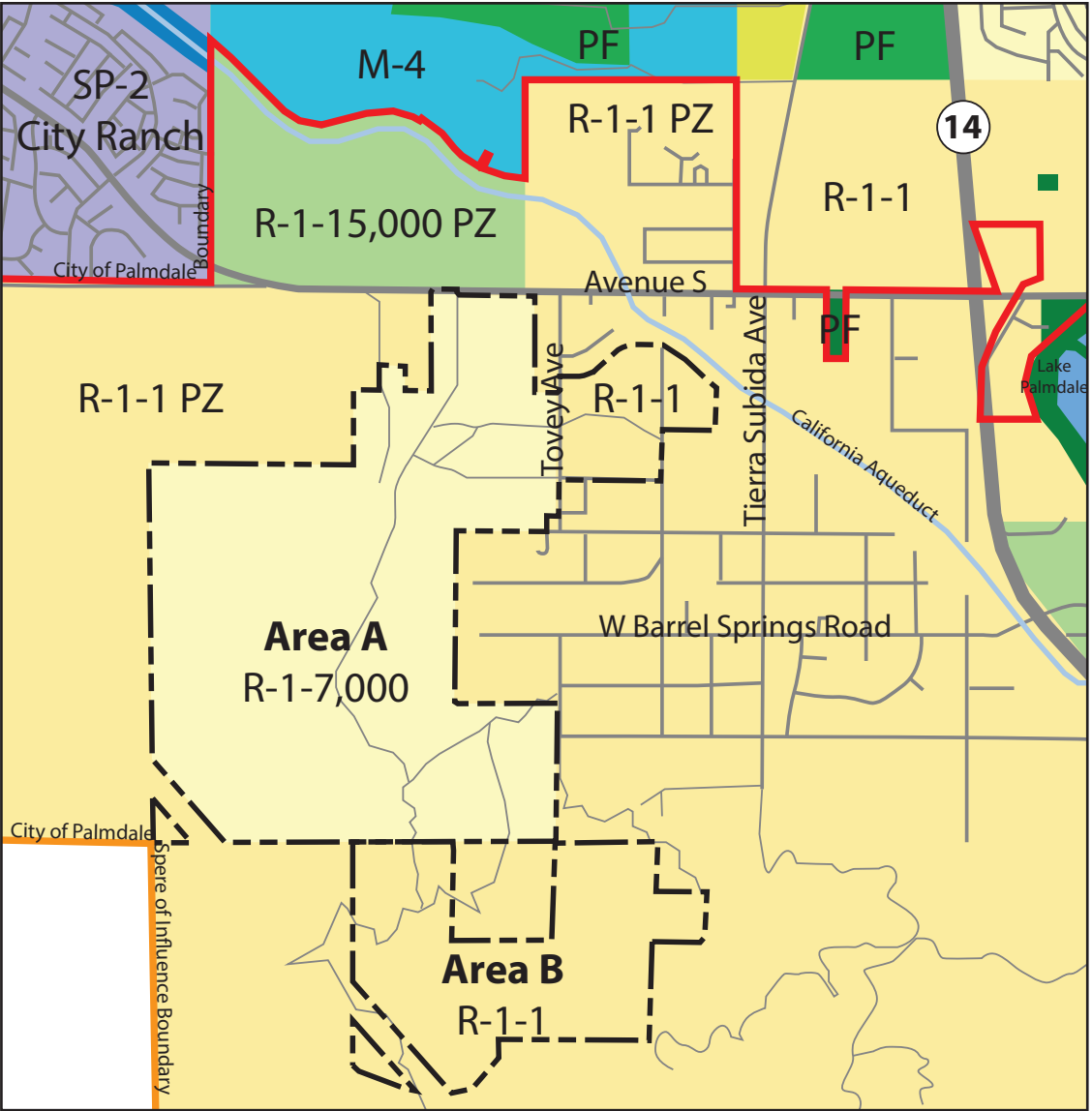
- R-1-1 PZ (SFR - 1 acre lot min)

EXISTING LAND USE & ZONING

PROPOSED LAND USE & ZONING



PROPOSED GENERAL PLAN LAND USES



PROPOSED ZONING

Legend

- | | |
|---------------------------------|--------------------------|
| SFR-1 (0-2 du/ac) | IND (Industrial) |
| LDR (1 du/ac) | SD (Special Development) |
| SP-2 (City Ranch Specific Plan) | BP (Business Park) |
| SFR-2 (0-3 du/ac) | PF (Public Facility) |
| | PF-B (Public Facility) |

Legend

- | |
|---|
| R-1-7,000 (SFR - 7,000 sqft lot min) |
| R-1-1 (SFR - 1 acre lot min) |
| R-1-15,000 PZ (SFR - 15,000 sqft lot min) |
| R-1-1 PZ (SFR - 1 acre lot min) |
| M-4 (Planned Industrial) |
| PF (Public Facilities) |

Summary

PROPOSED General Plan Land Use

AREA A

- SFR-1 (0-2 du/ac)
- LDR (1du/ac)

AREA B

- LDR (1du/ac)

PROPOSED Zoning

AREA A

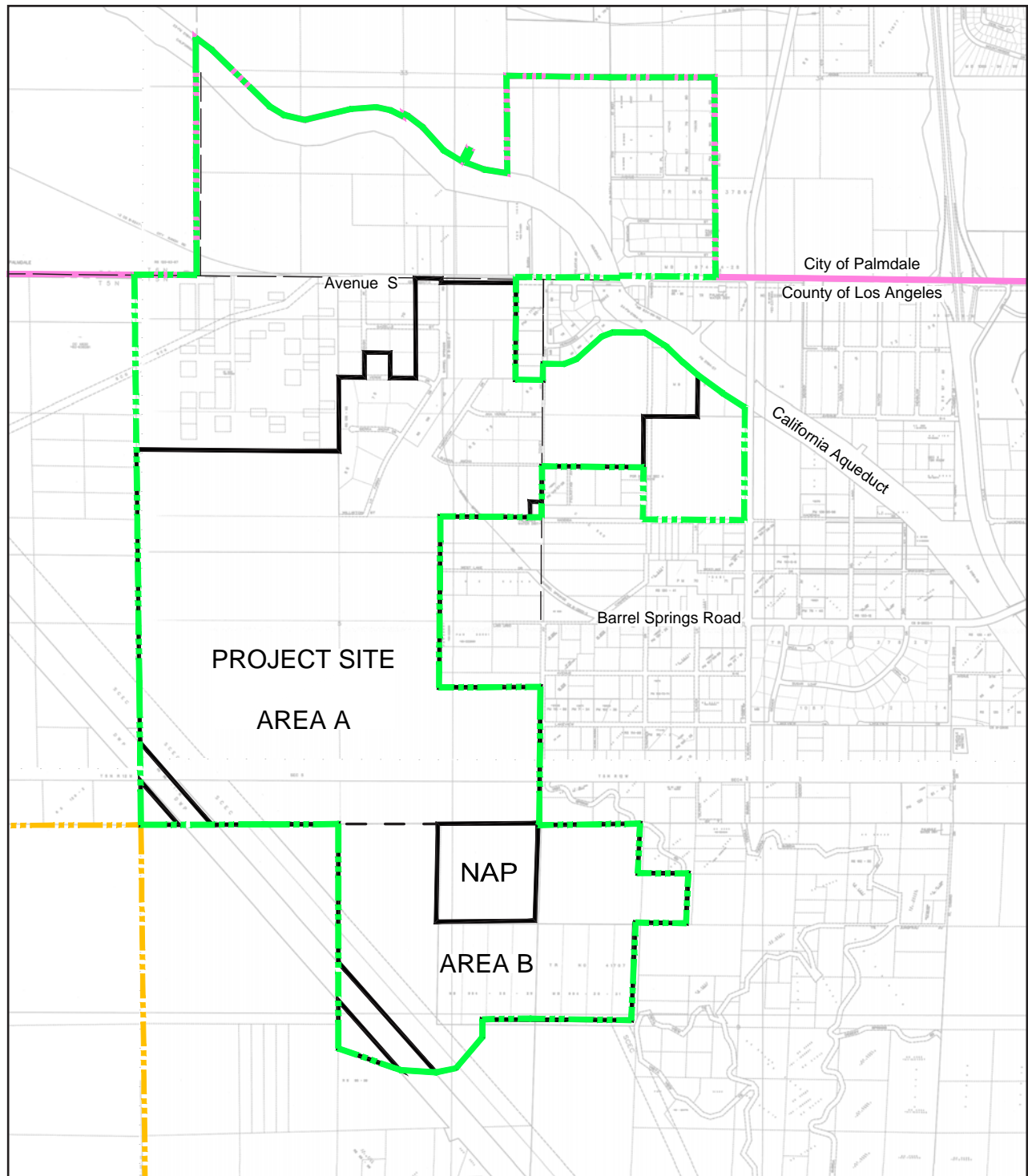
- R-1-1 PZ (SFR - 1 acre lot min)
- R-1-7,000 (SFR - 7,000 sqft lot min)

AREA B

- R-1-1 PZ (SFR - 1 acre lot min)

PROPOSED LAND USE & ZONING

ANNEXATION BOUNDARY

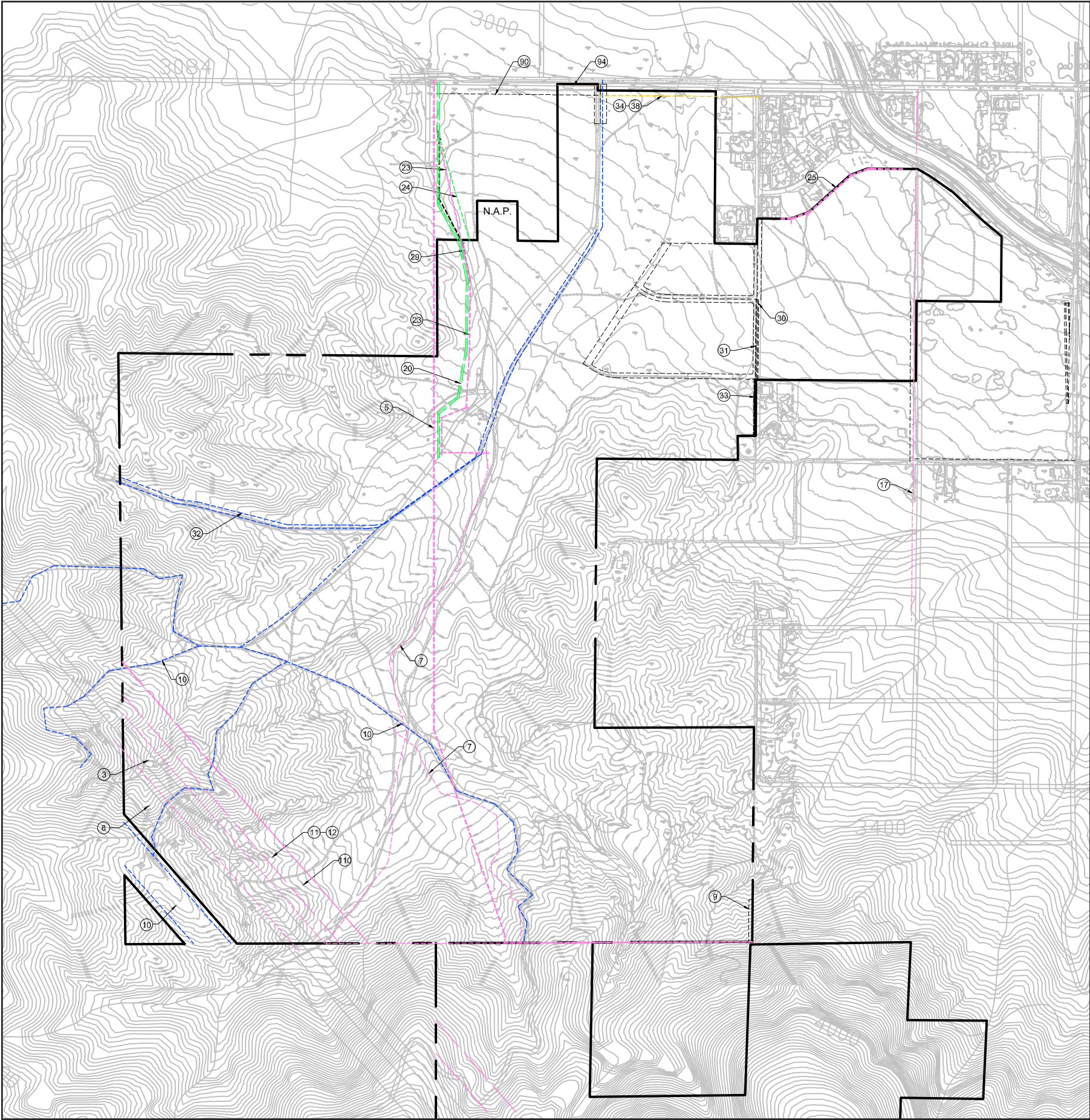


Legend

- Project Boundary
- City Boundary

- Proposed Annexation Boundary
- City of Palmdale Sphere of Influence

COMPOSITE MAP OF EXISTING EASEMENTS

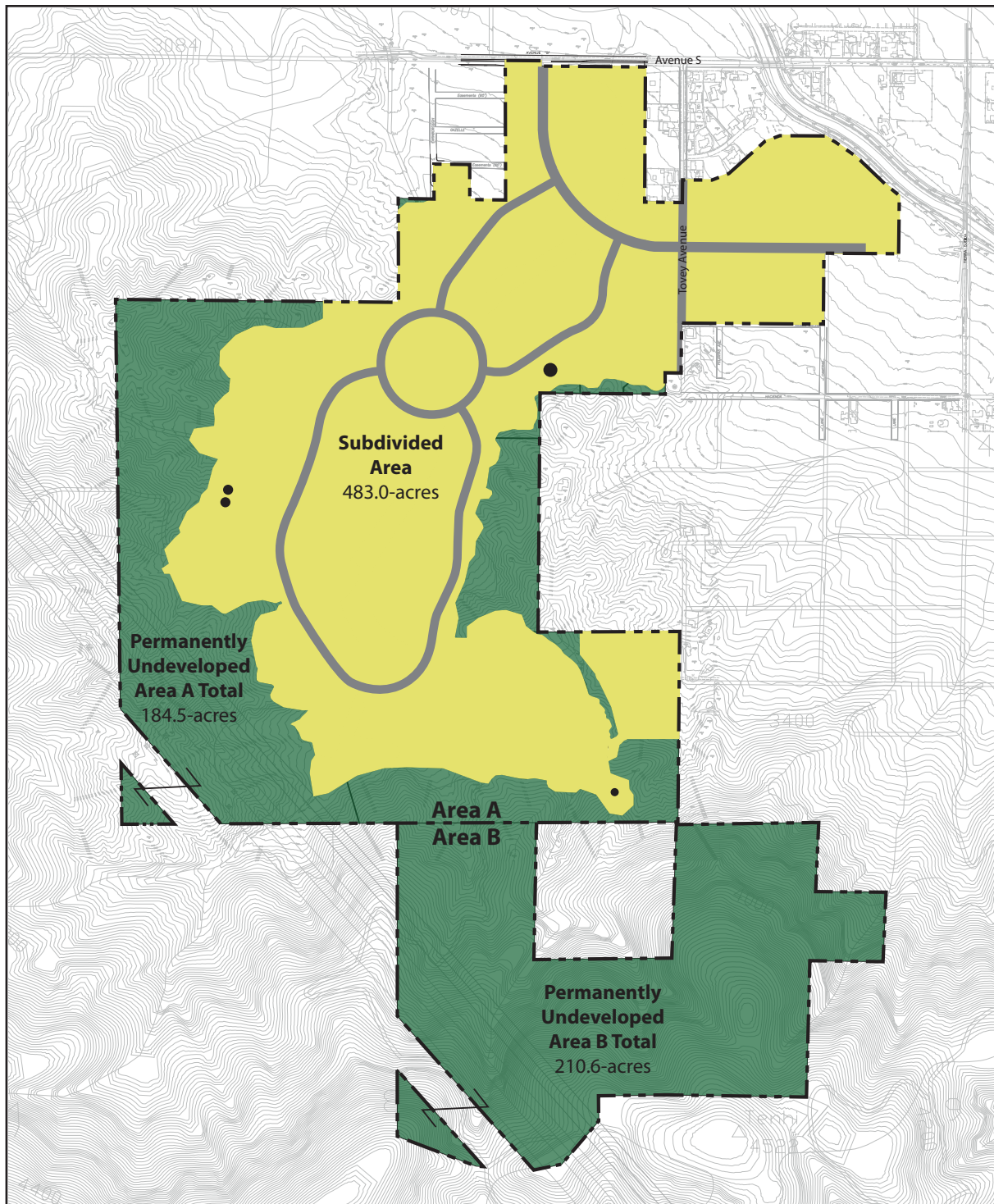


Legend

- Project Boundary
- SCE Easement
- SoCal Gas Co Easement
- Public Easement (Dedicated by Land Owner)
- City of LA Easement
- County of LA Easement
- Sagebrush Easement
- AnaVerde Easement
- Pacific Telephone Easement
- Record of Survey Easement

- 3 AN EASEMENT FOR PUBLIC UTILITIES AND INCIDENTAL PURPOSES, RECORDED AS BOOK 4533, PAGE 385 OF OFFICIAL RECORDS. IN FAVOR OF: SOUTHERN CALIFORNIA EDISON COMPANY. AFFECTS: A PORTION OF THE LAND.
- 5 AN EASEMENT FOR PUBLIC UTILITIES AND INCIDENTAL PURPOSES, RECORDED AS BOOK 4739, PAGE 324 OF OFFICIAL RECORDS. IN FAVOR OF: SOUTHERN CALIFORNIA EDISON COMPANY. AFFECTS: A PORTION OF THE LAND.
- 7 AN EASEMENT FOR ROAD AND INCIDENTAL PURPOSES, RECORDED AS BOOK 4764, PAGE 126 OF OFFICIAL RECORDS. IN FAVOR OF: SOUTHERN CALIFORNIA EDISON COMPANY. AFFECTS: A PORTION OF THE LAND.
- 8 AN EASEMENT FOR ELECTRIC LINES AND INCIDENTAL PURPOSES, RECORDED JUNE 26, 1963 AS BOOK D-2079 PAGE 970 OF OFFICIAL RECORDS. IN FAVOR OF: SOUTHERN CALIFORNIA EDISON COMPANY. AFFECTS: A STRIP OF LAND, 285 FEET WIDE, OVER A PORTION OF THE LAND. THE ABOVE EASEMENT WAS MODIFIED BY INSTRUMENTS ENTITLED "AMENDMENT OF GRANT OF EASEMENT" RECORDED JANUARY 8, 2001 AS INSTRUMENT NO. 01-0042712 THROUGH 01-0042716 OF OFFICIAL RECORDS.
- 9 AN EASEMENT FOR INGRESS, EGRESS, UTILITY AND INCIDENTAL PURPOSES, RECORDED SEPTEMBER 28, 1976 AS INSTRUMENT NO. 681 OF OFFICIAL RECORDS. IN FAVOR OF: JOHN S. GORDON, JR., A MARRIED MAN. AFFECTS: THE EAST 30 FEET OF THE SOUTH 350 FEET OF SECTION 5.
- 10 AN EASEMENT FOR PUBLIC UTILITY AND INCIDENTAL PURPOSES, RECORDED DECEMBER 27, 1979 AS INSTRUMENT NO. 79-1443870 OF OFFICIAL RECORDS. IN FAVOR OF: THE CITY OF LOS ANGELES. AFFECTS: A PORTION OF THE LAND.
- 11 AN EASEMENT FOR POWER LINES FOR THE TRANSMISSION OF ELECTRICITY AND INCIDENTAL PURPOSES, RECORDED FEBRUARY 24, 1989 AS INSTRUMENT NO. 89-295800 OF OFFICIAL RECORDS. IN FAVOR OF: SAGEBRUSH, A CALIFORNIA GENERAL PARTNERSHIP. AFFECTS: A STRIP OF LAND, 275 FEET WIDE, OVER A PORTION OF THE LAND.
- 12 AN EASEMENT FOR POWER LINES, POLES, INGRESS AND EGRESS AND INCIDENTAL PURPOSES, RECORDED JANUARY 3, 1996 AS INSTRUMENT NO. 96-7446 OF OFFICIAL RECORDS. IN FAVOR OF: SAGEBRUSH, A CALIFORNIA GENERAL PARTNERSHIP. AFFECTS: A PORTION OF THE LAND.
- 17 AN EASEMENT FOR POLE LINES AND INCIDENTAL PURPOSES, RECORDED DECEMBER 1, 1947 AS BOOK 25833, PAGE 90 OF OFFICIAL RECORDS. IN FAVOR OF: SOUTHERN CALIFORNIA EDISON COMPANY. AFFECTS: A PORTION OF THE LAND.
- 20 AN EASEMENT FOR RIDING AND HIKING TRAIL AND INCIDENTAL PURPOSES, RECORDED OCTOBER 21, 1957 AS INSTRUMENT NO. 3208 OF OFFICIAL RECORDS. IN FAVOR OF: THE COUNTY OF LOS ANGELES. AFFECTS: A PORTION OF THE LAND.
- 23 AN EASEMENT FOR POLE LINES AND INCIDENTAL PURPOSES, RECORDED NOVEMBER 1, 1957 AS INSTRUMENT NO. 4203 OF OFFICIAL RECORDS. IN FAVOR OF: SOUTHERN CALIFORNIA EDISON COMPANY. AFFECTS: A PORTION OF THE LAND.
- 24 AN EASEMENT FOR RIGHT TO CONSTRUCT, MAINTAIN, OPERATE AND USE A RIDING AND HIKING TRAIL AND APPURTENANT STRUCTURES AND INCIDENTAL PURPOSES, RECORDED JULY 23, 1958 AS INSTRUMENT NO. 3284 OF OFFICIAL RECORDS. IN FAVOR OF: THE COUNTY OF LOS ANGELES. AFFECTS: A PORTION OF THE LAND.
- 25 AN EASEMENT FOR POLE LINES AND INCIDENTAL PURPOSES, RECORDED DECEMBER 10, 1958 AS BOOK D-301, PAGE 235 OF OFFICIAL RECORDS. IN FAVOR OF: SOUTHERN CALIFORNIA EDISON. AFFECTS: A PORTION OF THE LAND.
- 29 AN EASEMENT FOR PUBLIC UTILITIES AND INCIDENTAL PURPOSES, RECORDED JANUARY 31, 1979 AS INSTRUMENT NO. 79-137032 OF OFFICIAL RECORDS. IN FAVOR OF: SOUTHERN CALIFORNIA EDISON COMPANY. AFFECTS: A PORTION OF THE LAND.
- 30 AN EASEMENT FOR PUBLIC UTILITIES AND INCIDENTAL PURPOSES, RECORDED JUNE 11, 1980 AS INSTRUMENT NO. 80-564431 OF OFFICIAL RECORDS. IN FAVOR OF: PACIFIC TELEPHONE AND TELEGRAPH COMPANY. AFFECTS: A PORTION OF THE LAND.
- 31 AN EASEMENT FOR PUBLIC UTILITIES AND INCIDENTAL PURPOSES, RECORDED DECEMBER 31, 1981 AS INSTRUMENT NO. 81-1277529 OF OFFICIAL RECORDS. IN FAVOR OF: THE PACIFIC TELEPHONE AND TELEGRAPH COMPANY. AFFECTS: A PORTION OF THE LAND.
- 32 AN EASEMENT FOR PUBLIC UTILITY ROAD AND ACCESS PURPOSES AND NECESSARY APPURTENANCES AND INCIDENTAL PURPOSES, RECORDED JULY 15, 1982 AS INSTRUMENT NO. 82-714014 OF OFFICIAL RECORDS. IN FAVOR OF: THE CITY OF LOS ANGELES. AFFECTS: A PORTION OF THE LAND.
- 33 AN EASEMENT FOR PUBLIC UTILITIES AND INCIDENTAL PURPOSES, RECORDED AUGUST 15, 1984 AS INSTRUMENT NO. 84-983424 OF OFFICIAL RECORDS. IN FAVOR OF: SOUTHERN CALIFORNIA EDISON COMPANY. AFFECTS: A PORTION OF THE LAND.
- 34 AN EASEMENT FOR PIPE LINES AND INCIDENTAL PURPOSES, RECORDED APRIL 5, 1957 AS INSTRUMENT NO. 4265 OF OFFICIAL RECORDS. IN FAVOR OF: SOUTHERN CALIFORNIA GAS COMPANY AND SOUTHERN COUNTIES GAS COMPANY OF CALIFORNIA. AFFECTS: THE NORTHERLY 92 FEET OF THE LAND.
- 38 AN EASEMENT FOR PIPE LINES AND INCIDENTAL PURPOSES, RECORDED APRIL 5, 1957 AS INSTRUMENT NO. 4265 OF OFFICIAL RECORDS. IN FAVOR OF: SOUTHERN CALIFORNIA GAS COMPANY AND SOUTHERN COUNTIES GAS COMPANY OF CALIFORNIA. AFFECTS: THE NORTH 92 FEET OF THE LAND.
- 90 AN EASEMENT FOR PIPE LINES AND INCIDENTAL PURPOSES, RECORDED AS BOOK 54139, PAGE 390 OF OFFICIAL RECORDS. IN FAVOR OF: SOUTHERN CALIFORNIA GAS COMPANY. AFFECTS: A PORTION OF THE LAND.
- 94 AN EASEMENT FOR SLOPE, DRAINAGE AND TEMPORARY CONSTRUCTION PURPOSES AND INCIDENTAL PURPOSES, RECORDED SEPTEMBER 25, 2003 AS INSTRUMENT NO. 03-2832245 OF OFFICIAL RECORDS. IN FAVOR OF: ANAVERDE LLC, A DELAWARE LIMITED LIABILITY COMPANY. AFFECTS: THOSE PORTIONS AS DESCRIBED AND DEPICTED THEREIN.
- 119 AN EASEMENT FOR ELECTRIC TRANSMISSION CORRIDOR AND INCIDENTAL PURPOSES, RECORDED OCTOBER 21, 2010 AS INSTRUMENT NO. 20101505514 OF OFFICIAL RECORDS. IN FAVOR OF: SOUTHERN CALIFORNIA EDISON. AFFECTS: AS DESCRIBED THEREIN.

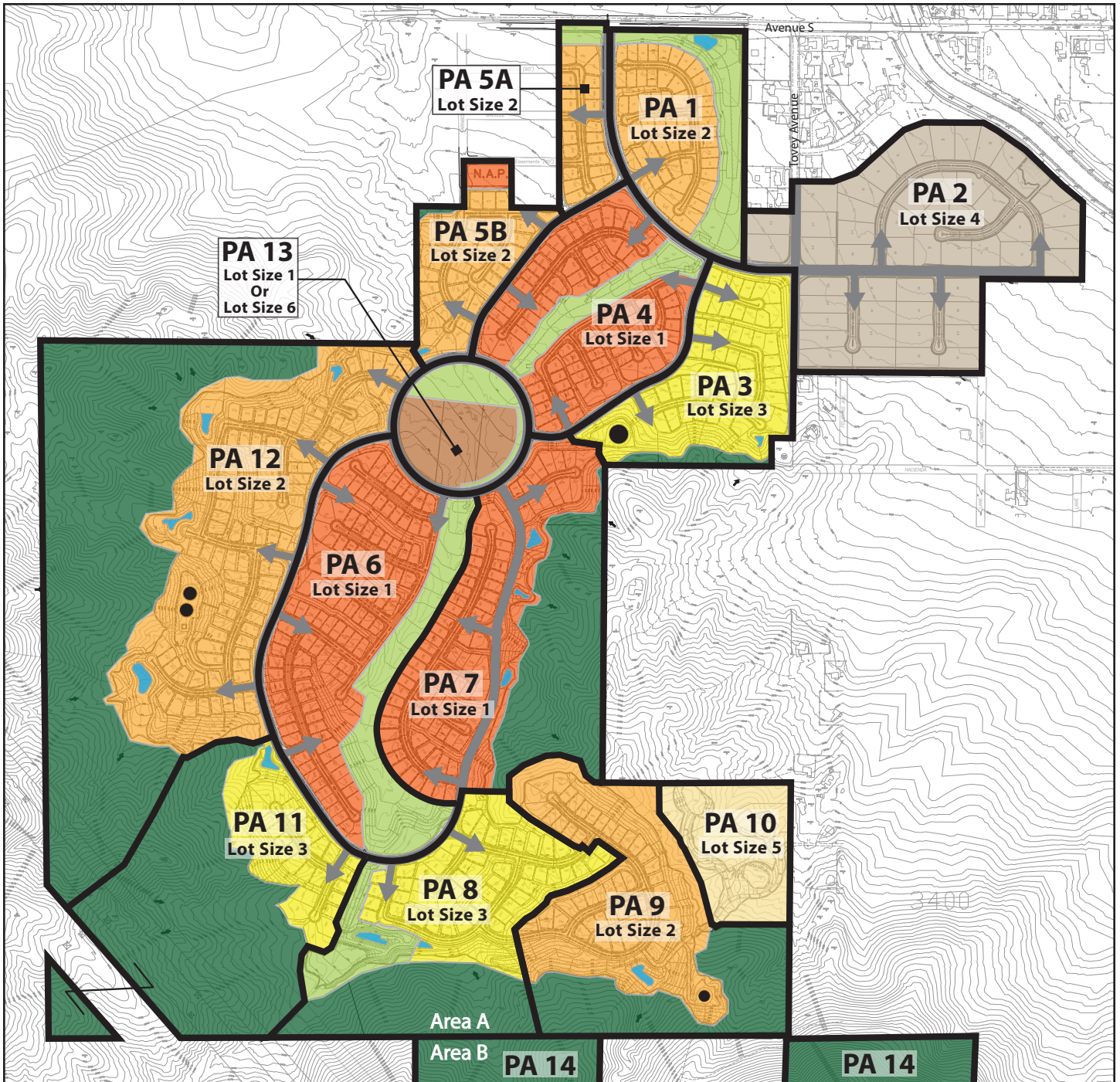
PLANNED DEVELOPMENT PLAN



Legend

- | | |
|--|--|
| Subdivided Area | Project Boundary |
| Permanently Undeveloped Area | Water Tank |

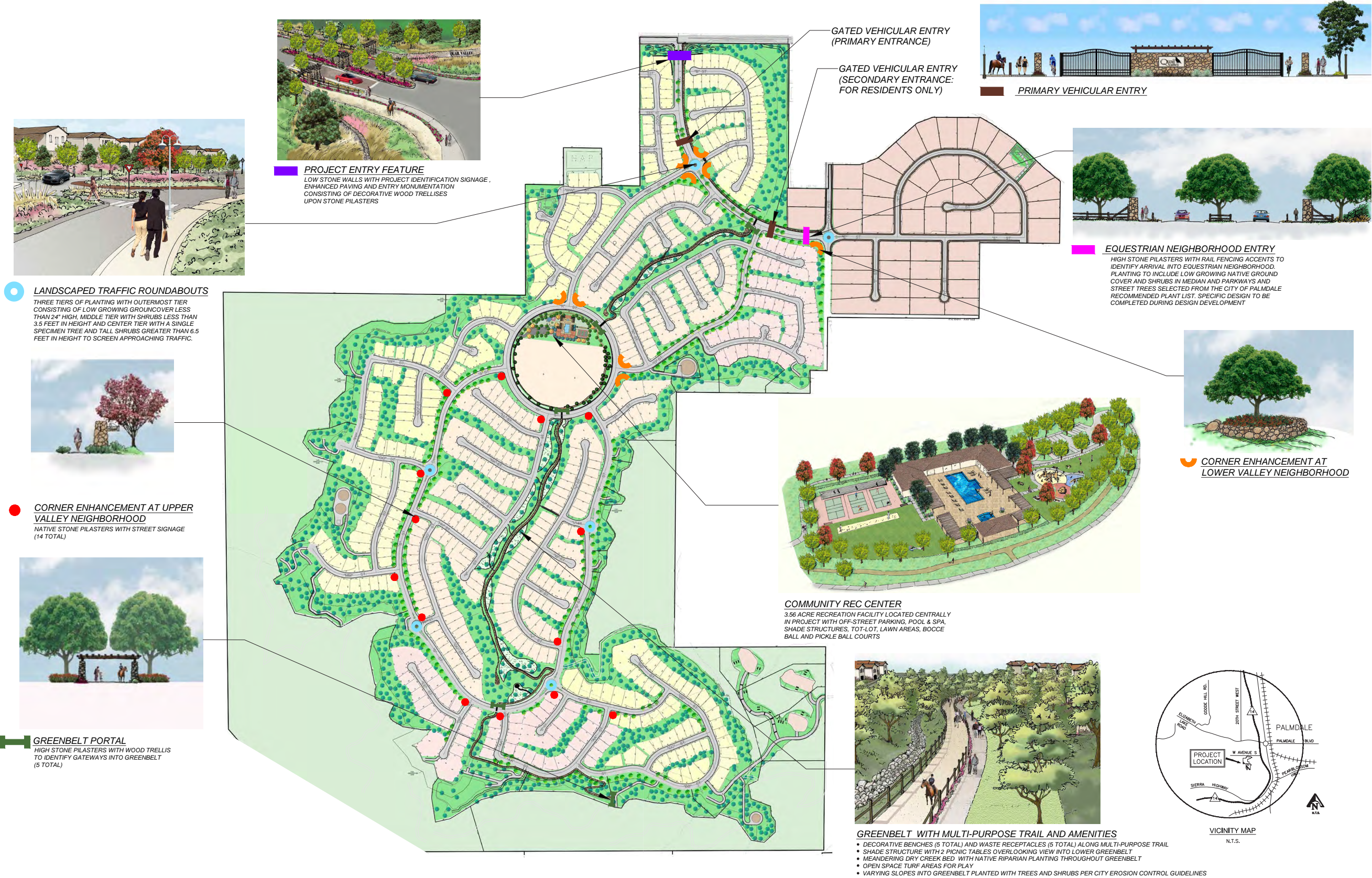
PLANNING AREAS & LOT SIZES



Legend

	Planning Area Boundary		Lot Size 4		Permanently Undeveloped Area
	Lot Size 1		Lot Size 5		Drainage Basin
	Lot Size 2		Lot Size 6 and/or Lot Size 1		Water Tank
	Lot Size 3		Greenbelt		

CONCEPTUAL
LANDSCAPE
PLAN



CONCEPTUAL LANDSCAPE PLAN

CONCEPTUAL RECREATION FACILITY PLAN



SECTION A-A



PERSPECTIVE

CHILDREN ACTIVITY
AREAS FOR AGES 2-5 YR &
6-12 YR

OFF STREET PARKING LOT
(29 SPACES TOTAL, INCLUDING 2
HANDICAP SPACES)

DECOMPOSED GRANITE
TRAIL (5' WIDE)

PERIMETER CONCRETE
CURB ADJACENT
SIDEWALK (6' WIDE)

FUTURE SINGLE FAMILY
OR MULTI-FAMILY HOUSING

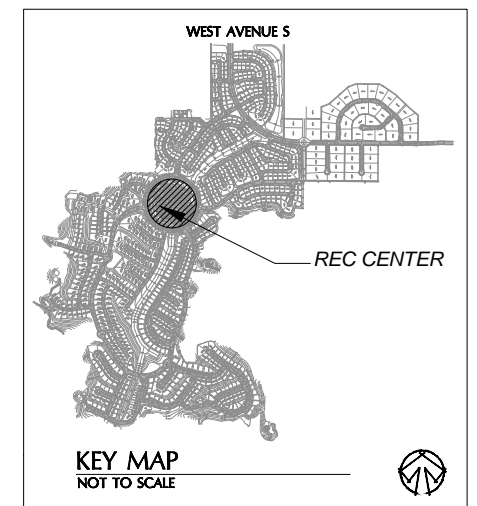
LOW NATIVE SHRUBS AND
GROUND COVER MOUNDS ON
OUTSIDE OF DECOMPOSED
GRANITE TRAIL

STREET TREES AND SHADE
TREES SELECTED FROM THE
CITY OF PALMDALE
RECOMMENDED PLANT LIST

OPEN PLAY TURF AREA WITH
PICKLEBALL COURTS & BOCCE BALL

12' WIDE DECOMPOSED GRANITE
TRAIL CONNECTING GREENBELT

FUTURE SINGLE FAMILY
OR MULTI-FAMILY HOUSING



KEY MAP
NOT TO SCALE

CONCEPTUAL RECREATION FACILITY PLAN



NTS
REV 03-16-2018

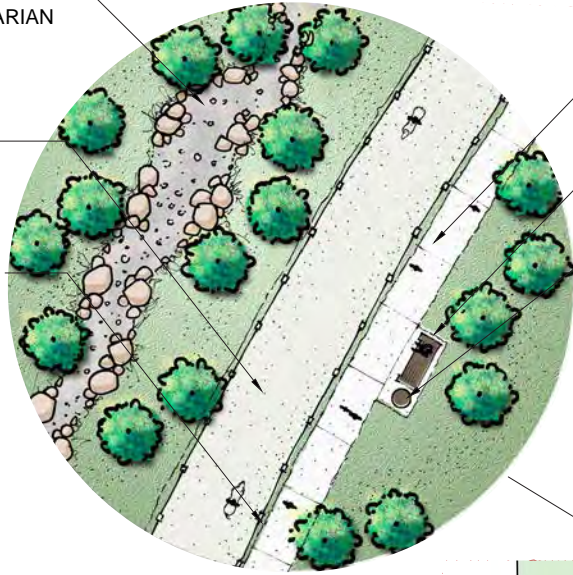
QUAIL VALLEY
PLANNED DEVELOPMENT

GREENBELT & AMENITY PLAN

MEANDERING DRY CREEK BED PLANTED WITH NATIVE RIPARIAN PLANTING ALONG EDGES

12' WIDE MULTI-PURPOSE TRAIL (DECOMPOSED GRANITE)

RAIL FENCING ON BOTH SIDES OF MULTI-PURPOSE TRAIL



5' WIDE CONCRETE SIDEWALK

DECORATIVE BENCH (5 TOTAL)

TRASH RECEPTACLE (5 TOTAL)

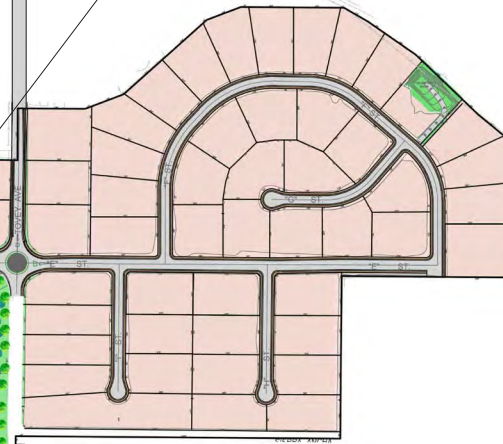
ENTRY PORTAL INTO GREENBELT (5 TOTAL)

NEIGHBORHOOD ACCESS POINT INTO GREENBELT

5' WIDE MEANDERING SIDEWALK AND 12' WIDE MULTI-PURPOSE TRAIL (DECOMPOSED GRANITE)

COMMUNITY REC CENTER

12' WIDE MULTI-PURPOSE TRAIL (DECOMPOSED GRANITE)



ENTRY PORTAL INTO GREENBELT (5 TOTAL)

MEANDERING DRY CREEK ROCK BED

MULTI PURPOSE TRAIL WITH SPLIT RAIL FENCING ALONG BOTH SIDES.

OPEN SPACE TURF AREAS FOR PLAY THROUGHOUT GREENBELT

NEIGHBORHOOD ACCESS POINTS INTO GREENBELT

DOWNSLOPE INTO GREENBELT PLANTED WITH TREES AND SHRUBS PER CITY EROSION CONTROL GUIDELINES

SHADE STRUCTURE AND PICNIC TABLES OVERLOOKING VIEW INTO LOWER GREENBELT

SHADE STRUCTURE AND PICNIC TABLES OVERLOOKING VIEW INTO GREENBELT

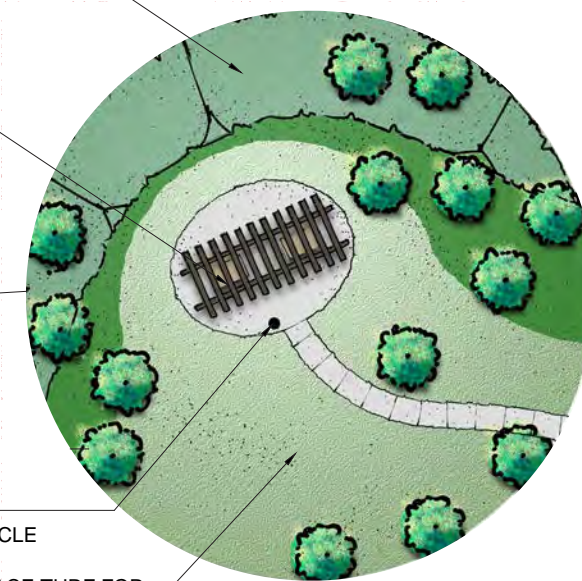
ENTRY PORTAL INTO GREENBELT (5 TOTAL)



ENTRY PORTAL INTO GREENBELT



MEANDERING SIDEWALK AND MULTI-PURPOSE TRAIL THROUGHOUT GREENBELT WITH NEIGHBORHOOD ACCESS POINT



TRASH RECEPTACLE

OPEN SPACE TURF FOR PASSIVE PLAY

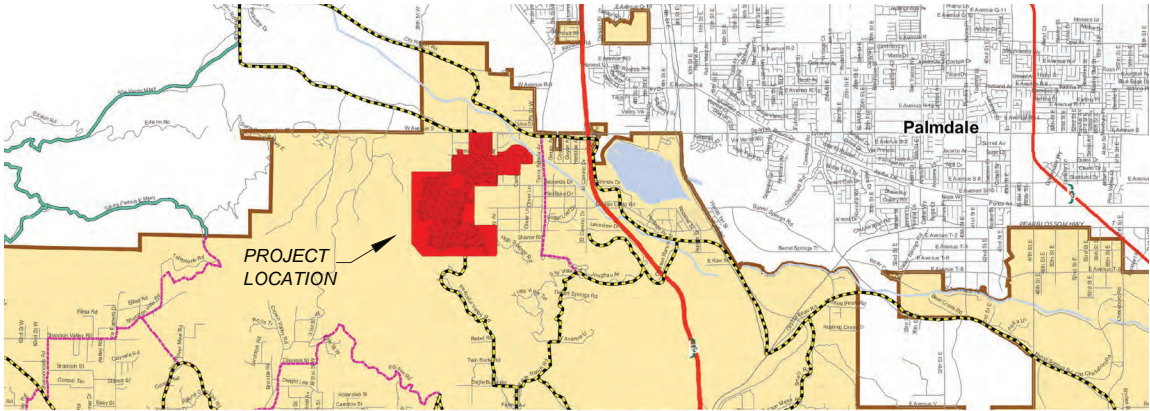
GREENBELT & AMENITY PLAN



NTS
REV 04-19-2018

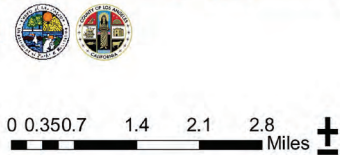
QUAIL VALLEY
PLANNED DEVELOPMENT

CONCEPTUAL TRAIL PLAN

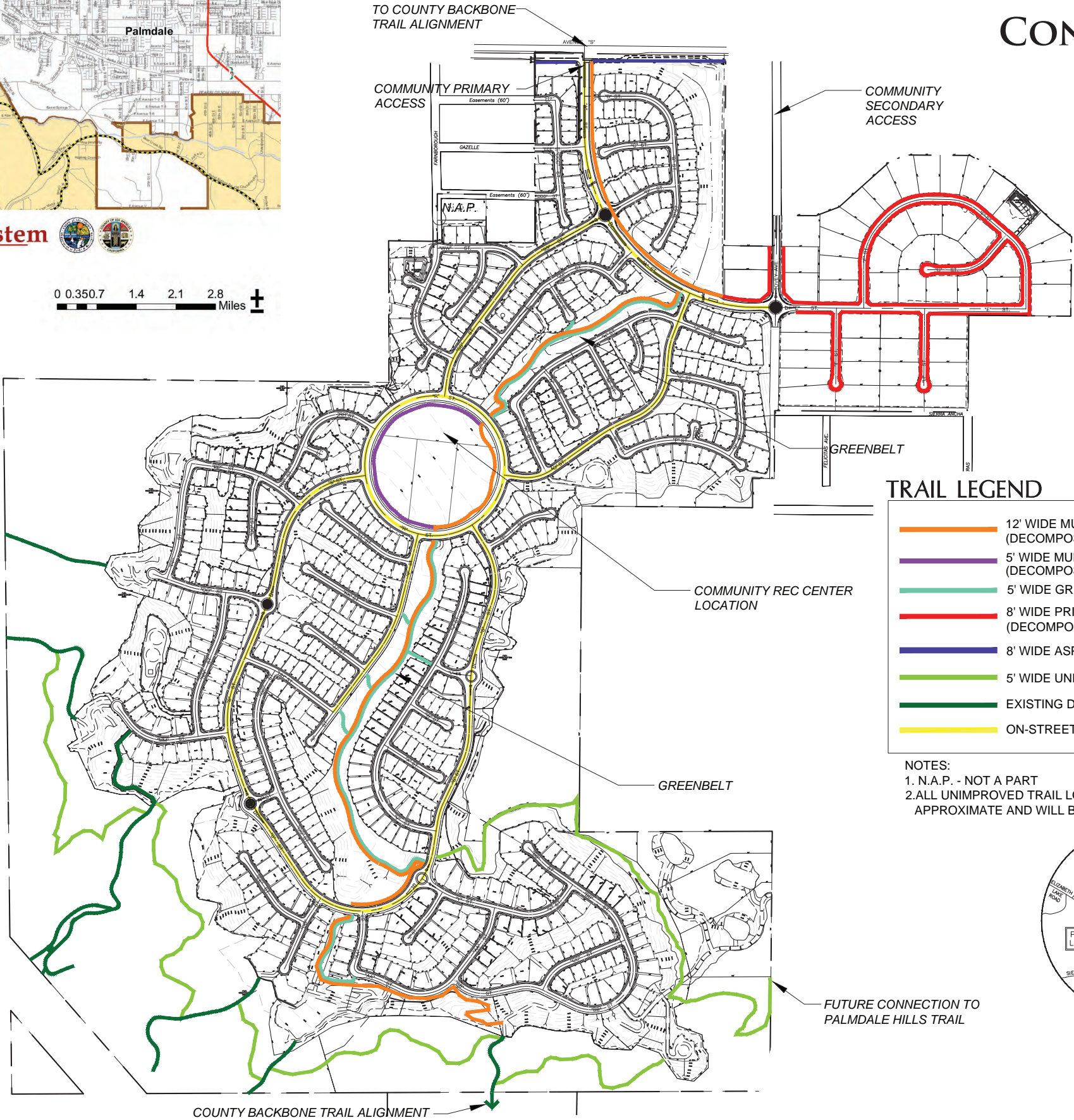


Antelope Valley Backbone Trail System

- Legend**
- Adopted County Backbone Trail System
 - Proposed County Backbone Trail System
 - Existing City Trails
 - Federal/National Forest Trails
 - Pacific Crest National Trail
 - National Forest Boundary
 - Antelope Valley
 - Santa Clarita Valley
 - Lakes Rivers and Streams
 - Palmdale



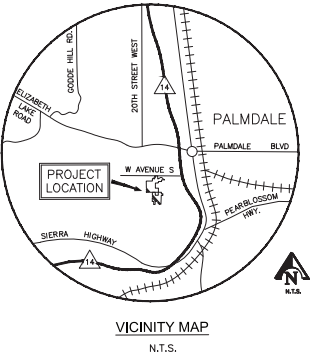
EXAMPLE OF UNIMPROVED TRAIL
(Source - Palmdale Hills Trail - County Website)



TRAIL LEGEND

- 12' WIDE MULTI-PURPOSE TRAIL - 10,493 L.F. (DECOMPOSED GRANITE)
- 5' WIDE MULTI-PURPOSE TRAIL - 1,662 L.F. (DECOMPOSED GRANITE)
- 5' WIDE GREENBELT SIDEWALK - 6,015 L.F.
- 8' WIDE PRIVATE TRAIL - 11,820 L.F. (DECOMPOSED GRANITE)
- 8' WIDE ASPHALT BIKE TRAIL - 1,180 L.F.
- 5' WIDE UNIMPROVED TRAIL - 12,737 L.F.
- EXISTING DIRT ROAD - 7,489 L.F.
- ON-STREET BIKE LANE 30,600 LF

NOTES:
1. N.A.P. - NOT A PART
2. ALL UNIMPROVED TRAIL LOCATIONS ARE APPROXIMATE AND WILL BE FIELD LOCATED.

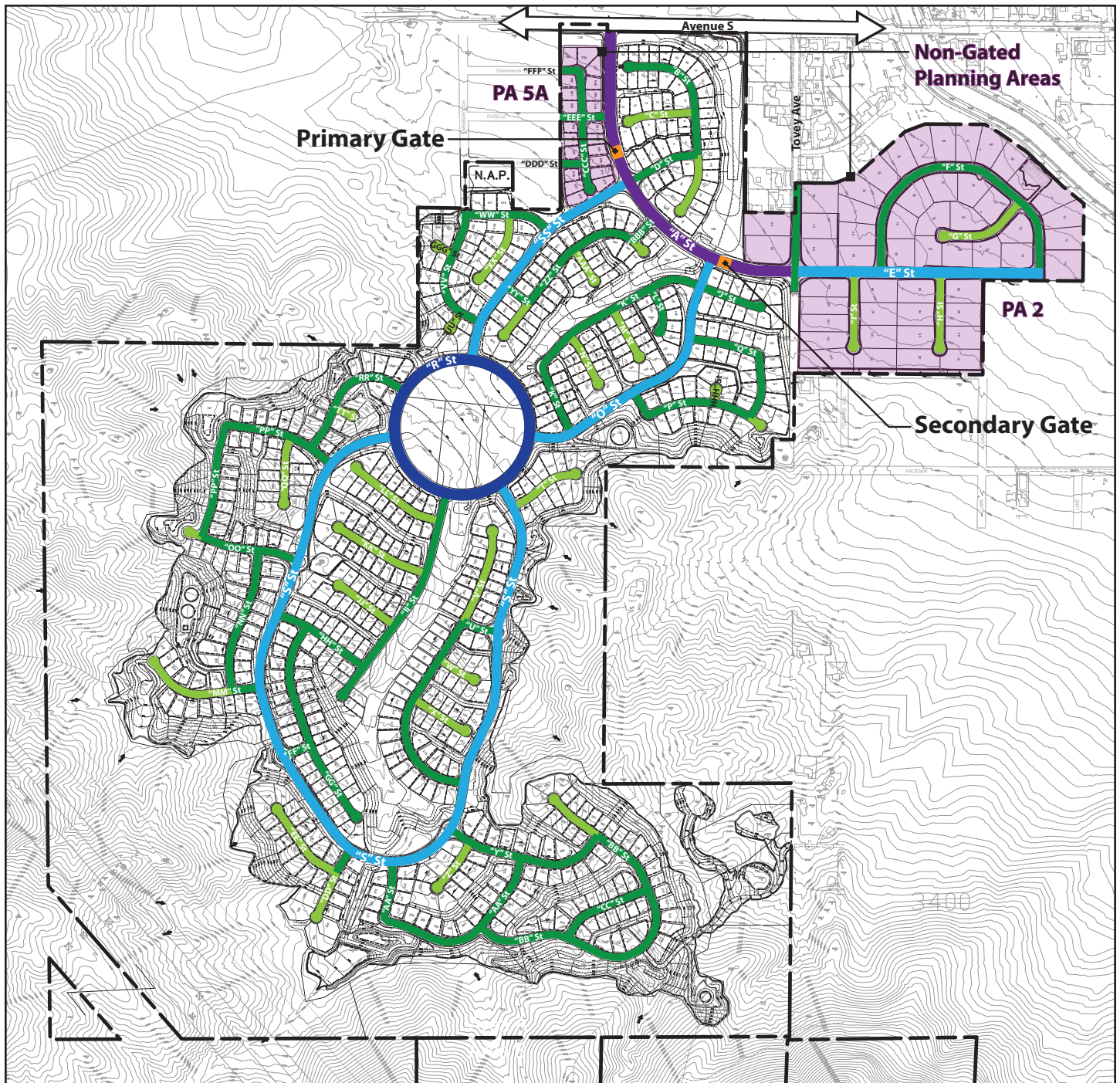


CONCEPTUAL TRAIL PLAN



QUAIL VALLEY
PLANNED DEVELOPMENT

CIRCULATION PLAN



Legend

	Major Arterial		64' Connector Street		Vehicular Gates
	92' Connector Street		60' Local Street		Non-Gated Planning Areas
	79' Connector Street		58' Cul-de-Sac		

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:

<u> </u> Aesthetics	<u> </u> Agriculture and Forestry Resources	<u> </u> Air Quality
<u>X</u> Biological Resources	<u> </u> Cultural Resources	<u> </u> Geology/Soils
<u> </u> Greenhouse Gas Emissions	<u> </u> Hazards & Hazardous Materials	<u> </u> Hydrology/Water Quality
<u> </u> Land Use/Planning	<u> </u> Mineral Resources	<u>X</u> Noise
<u> </u> Population/Housing	<u> </u> Public Services	<u> </u> Recreation
<u> </u> Transportation/Traffic	<u> </u> Tribal Cultural Resources	<u> </u> Utilities/Service Systems
<u> </u> Mandatory Findings of Significance		

Determination (to be completed by the lead agency):

On the basis of this initial study and environmental evaluation:

I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.	
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.	X
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.	


 Rob Bruce
 Planning Manager

10-16-18

Date

City of Palmdale

For

Evaluation of Environmental Impacts:

- 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 process, 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 they 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.

ISSUES:

Potentially
Significant
Impact:

Less Than
Significant
Impact With
Mitigation:

Less Than
Significant
Impact:

No
Impact:

I. AESTHETICS						
Would the project:						
a)	Have a substantial adverse effect on a scenic vista?				X	
	<p>The 878.1-acre Project site currently is vacant and crossed by a series of dirt roads, many of which provide access to existing transmission lines. The majority of the surrounding properties also are undeveloped, with the exception of a small group of single-family residences along the northeastern edge of the Project site at Tovey Avenue and partially developed properties easterly of the Project site in the Anaverde Hills area.</p> <p>Area A is comprised of a gently sloping valley surrounded on three sides by natural hillsides. In July 2005, a wildfire burned approximately 375 acres in the central and southern portions of the Project site and thereby removed a significant amount of native vegetation, some of which has re-established. The central and northern portions of Area A consist of lowland foothills dominated by scrub species, ruderal vegetation, and disturbed areas. Area B is located in higher elevations of the foothills that approach the ridgeline of the Sierra Pelona Mountains. Although Area B comprises a major portion of the natural grade that forms the backdrop of the City of Palmdale's southern skyline, there are no scenic vistas or scenic resources on or near the Project site that Project development could adversely affect. Area B and portions of Area A are and will remain natural open space. Public views are available from a few locations in developed areas north and northeast of the City. In addition, distant views of the Project site are available from limited areas on Avenue S and Tierra Subida and other roadways in the vicinity of the Project site. The scenic vistas closest to the Project site are vistas of West Hills (2.4 miles to the southwest) and the Sierra Pelona Mountains (4.4 miles to the west). Impacts to scenic vistas, including vistas from the I-14 freeway, will be minimal and are less than significant.</p> <p>Although Project development will involve substantial grading and pad construction for residential units, roadways and recreation facilities on a portion of the Project site and Project development (grading; construction) will disturb 483 acres of the 878-acre Project site, the development area of the Project site is not visible from most areas beyond the immediate surrounding residential areas. Therefore, Project development would not result in a substantial adverse effect on a scenic vista and the resultant level of impact would be less than significant.</p> <p>This topic will be addressed in greater detail in the Project EIR.</p>					
	Sources: Project Plans; City of Palmdale General Plan; Los Angeles County General Plan; Quail Valley Project Development Plan Visual Analysis					
b)	Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a State scenic highway?					X
	<p>The 878.1-acre Project site currently is vacant and crossed by a series of dirt roads. In July 2005, a wildfire burned approximately 375 acres in the central and southern portions of the Project site and thereby removed a significant amount of native vegetation, some of which has re-established. Although the Project site contains cupules (human-manufactured depressions in rock [that may be a snake motif] associated with socio-religious activities) and four rock art panels, the Project site does not include any heritage trees, historic buildings or rock outcroppings that would be considered scenic resources. In addition, as indicated in response 1(a), no roadways in the Project vicinity are designated State scenic highways. Therefore, Project development will not result in any impact on scenic resources, including but not limited to trees, rock outcroppings and historic buildings within a State scenic highway.</p>					
	Sources: Project Plans; City of Palmdale General Plan; Los Angeles County General Plan; Quail Valley Project Development Plan Visual Analysis					
c)	Substantially degrade the existing visual character or quality of the site and its surroundings?				X	
	<p>The 878.1-acre Project site currently is vacant and crossed by a series of dirt roads, many of which provide access to existing transmission lines. In July 2005, a wildfire burned approximately 375 acres in the central and southern portions of the Project site and thereby removed a significant amount of native vegetation, some of which has re-established. The area surrounding the Project site largely is undeveloped, except for a small cluster of single-family residences along the Project site's northeastern edge at Tovey Road and some residentially-developed properties easterly of the Project site in the Anaverde Hills vicinity. The California Aqueduct is north and east of the Project site. The Project site is part of the valley floor that is visible from recreational trails along the Sierra Pelona Mountain ridgeline and from the hillside above the Project site.</p> <p>Project development (grading and construction) will occur over 483 acres in Area A of the 878.1-acre Project site and will preserve the entirety of Area B in its natural state. Project development will include grading activities and construction of 730</p>					

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	dwelling units. Project development would be visible to some of the nearby residents. Grading and construction activities that would be visible to nearby residents would be temporary. This would require removal of existing vegetation on Area A. Although the open space character of Area A would be changed, the Project impact on the visual character/quality of the Project site and surroundings would be less than significant.					
	This topic will be addressed in greater detail in the Project EIR.					
	Sources: Project Plans; City of Palmdale General Plan; Los Angeles County General Plan; Quail Valley Project Development Plan Visual Analysis					
d)	Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?			X		
	The vacant Project site is adjacent to existing and approved residential developments to the northeast and east/southeast. No sources of light or glare are present on the Project site. Therefore, the proposed Project development will result in both temporary sources of light and glare (grading and construction operations) and permanent sources of light and glare emanating from residential security and residential uses associated with Project operation. The resultant impact of new light and glare will affect both day and nighttime views of the Project site and the Project vicinity and be potentially significant.					
	The Project Environmental Impact Report will address this impact in greater detail and recommend appropriate Mitigation Measures that will ensure any potentially significant impacts will be reduced to a less than significant level.					
	Source: Project Plans; Quail Valley Project Development Plan Visual Analysis					
II.	<u>AGRICULTURE AND FOREST RESOURCES</u> In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Department of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project; the Forest Legacy Assessment project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. Would the project:					
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
	The Project site has no Prime Farmland, Unique Farmland or Farmland of Statewide importance as identified by the California State Department of Conservation. Therefore, Project development and operation will not result in converting such land to non-agricultural use. No impact will result.					
	Sources: Project Plans; Quail Valley Project Development Plan; City of Palmdale General Plan; City of Palmdale Zoning Code; Los Angeles County General Plan; City of Palmdale Zoning Code; Department of Conservation, Farmland Mapping and Monitoring Program, 1984-2006					
b)	Conflict with existing zoning for agricultural use, or a Williamson Act contract?					X
	The Project site is not designated for agricultural use or subject to a Williamson Act contract. Therefore, Project development and operation will not conflict with such zoning or contract. No impact will result.					
	Sources: Project Plans; Quail Valley Project Development Plan; City of Palmdale General Plan; City of Palmdale Zoning Code; Los Angeles County General Plan; City of Palmdale Zoning Code					

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c)	Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?					X
	The Project site is not zoned for forest land, timberland or timberland production. Therefore, Project development and operation will not conflict with such zoning/re-zoning. No impact will result.					
	Sources: Project Plans; Quail Valley Project Development Plan; City of Palmdale General Plan; City of Palmdale Zoning Code; Los Angeles County General Plan					
d)	Result in the loss of forest land or conversion of forest land to non-forest use?					X
	The Project site does not contain forest land. Therefore, Project development and operation will not result in loss of such land or conversion of forest land to non-forest use. No impact will result.					
	Sources: Project Plans; Quail Valley Project Development Plan; City of Palmdale General Plan; Los Angeles County General Plan; City of Palmdale Zoning Code; Department of Conservation, Farmland Mapping and Monitoring Program, 1984-2006					
e)	Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to nonagricultural use or conversion of forest land to non-forest use?					X
	Reference II(a) above. No agricultural uses or forest uses occur on the Project site. Project development and operation will not involve conversion of Farmland to agricultural use or conversion of forest land to non-forest use. No impact will result.					
	Sources: Project Plans; Quail Valley Project Development Plan; City of Palmdale General Plan; Los Angeles County General Plan; City of Palmdale Zoning Code					
III.	AIR QUALITY Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. Would the project:					
a)	Conflict with or obstruct implementation of the applicable air quality plan?			X		
	<p>The Southern California region has been divided into a number of geographical air basins based on areas with similar topographical and meteorological conditions. Air quality within air basins is managed by air pollution control districts or air quality management districts that are responsible for maintaining healthful air within their assigned jurisdictions. The Project site is located in the Antelope Valley, which is within the westernmost portion of the Mohave Desert Air Basin. This Air Basin includes the desert portions of Los Angeles and San Bernardino Counties, the eastern desert portion of Kern County, and the northeastern desert portion of Riverside County. Air quality in the Air Basin is primarily affected by motor vehicle emissions generated within the Antelope Valley, construction-related dust, travel on unpaved roads, and pollutants transported from other air basins. The Antelope Valley Air Quality Management District maintains an air quality monitoring station in the City of Lancaster, northerly of the City of Palmdale. This station monitors Ozone, Carbon Monoxide, Nitrogen Dioxide, and Fine Particulate Matter. Air quality in the Project vicinity has exceeded State standards for Ozone and Fine Particulate Matter and federal standards for Ozone over the past several years. Based on the air quality modeling analysis in the 'Air Quality Assessment' for the Project, there will be significant short-term construction impacts due to Project implementation and operation, based on Antelope Valley Air Quality Management District thresholds of significance. Although the emissions are in excess of the Air Quality Management District threshold criteria, it is not likely that short-term construction activities will increase frequency or severity of existing air quality violations due to required compliance with Antelope Valley Air Quality Management District Rules and Regulations and with City of Palmdale regulations.</p> <p>Project development and operation will increase regional emissions by an amount less than the Antelope Valley Air Quality Management District thresholds.</p> <p>The Project Environmental Impact Report will address this impact in greater detail and recommend appropriate Mitigation Measures that will ensure any identified significant impacts will be reduced to a less than significant level.</p>					

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	Source: Project Plans; Quail Valley Project Development Plan; City of Palmdale General Plan; Landrum & Brown, "Air Quality Assessment For: Quail Valley Residential Development," City of Palmdale (March 16, 2018)				
b)	Violate any air quality standard or contribute substantially to an existing or projected air quality violation?			X	
	<p>Air quality in the Mohave Desert Air Basin is affected primarily by motor vehicle emissions, construction dust, travel on unpaved roads with silty debris, and pollutants transported from other air basins. Frequent dust storms and wind-blown dust particles from the Mohave Desert also affect air quality in the Air Basin. Pollutants from the Los Angeles metropolitan area southwest of the Project area can cause a substantial air quality problem in the Project vicinity in winter months when the Pacific High Pressure Cell retreats south and winds begin to blow from the southwest. Determination whether regional air quality is healthful or unhealthful occurs by comparing contaminant levels in ambient air samples to national and State ambient air quality standards. California and the federal government have established health-based air quality standards for the following "criteria" contaminants: Ozone (O₃); Carbon Monoxide (CO); Nitrogen Dioxide (NO₂); Sulfur Dioxide (SO₂); Respirable and Fine Particulate Matter (PM_{2.5} and PM₁₀); and, Lead (Pb). These standards were established to protect sensitive receptors (with a safety margin) from adverse health impacts due to exposure to the air pollutants. California standards are more stringent than federal standards. Furthermore, California has established ambient air quality standards for sulfates, visibility-reducing particles, hydrogen sulfide, and vinyl chloride. Air quality of a region is deemed to be in attainment of State standards if the measured ambient air pollutant levels for Ozone, Carbon Monoxide, Sulfur Dioxide (1-hour and 24-24), Nitrogen Dioxide, Respirable and Fine Particulate Matter, and visibility-reducing particles do not exceed State standards and all other standards are not equaled or exceeded at any time in any consecutive 3-year period. National Ambient Air Quality Standards (other than for Ozone, Respirable and Fine Particulate Matter, and those based on annual averages or arithmetic mean) are not to be exceeded more than once per year. National Ambient Air Quality Standards for Ozone and Respirable and Fine Particulate Matter are based on statistical calculations over one-year to three-year periods, depending on the pollutant.</p> <p>Reference III(a) above. Project development and operation are expected to be in compliance with the Antelope Valley Air Quality Management District published attainment and maintenance plan. The Air Quality Management District has identified the Project site as Attainment/Unclassified for Nitrogen Dioxide (NO_x). NO_x is a combination of primarily NO and NO₂. While Project development and operation will generate a temporary increase in NO_x in 2020, the Project is not expected to impact the Antelope Valley Air Quality Management District's goals of reaching federal attainment maintenance status in 2021.</p> <p>The Project Environmental Impact Report will address this impact in greater detail and recommend appropriate Mitigation Measures that will ensure any identified significant impacts will be reduced to a less than significant level.</p>				
	Source: Project Plans; Quail Valley Project Development Plan; City of Palmdale General Plan; Landrum & Brown, "Air Quality Assessment For: Quail Valley Residential Development," City of Palmdale (March 16, 2018)				
c)	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 (including releasing emissions which exceed quantitative thresholds for ozone precursors)?			X	
	<p>Reference III(a)(b) above.</p> <p>The Project Environmental Impact Report will address this impact in greater detail and recommend appropriate Mitigation Measures that will ensure any identified significant impacts will be reduced to a less than significant level.</p>				
	Source: Project Plans; Quail Valley Project Development Plan; City of Palmdale General Plan; Landrum & Brown, "Air Quality Assessment For: Quail Valley Residential Development," City of Palmdale (March 16, 2018)				
d)	Expose sensitive receptors to substantial pollutant concentrations?			X	✗
	<p>Residences, schools, daycare centers, playgrounds, athletic facilities, long-term facilities and medical facilities are considered sensitive receptor land uses. The Project site is located adjacent to low density residential land uses and less than one mile from a residential housing tract to the southeast. The Antelope Valley Air Quality Management District identifies in its "Antelope Valley AQMD CEQA and Federal Conformity Guidelines" that specific proposed project types within a certain distance from existing or planned sensitive receptors are to be "evaluated for exposure to substantial pollutant concentrations. . . ." The project types are the following: any industrial use within 1,000 feet; a distribution center (40 or more trucks per day) within 1,000 feet; a major transportation project (50,000 or more vehicles per day) within 1,000 feet; a</p>				

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	<p>dry cleaner using perchloroethylene within 500 feet; and, a gasoline dispensing facility within 300 feet. The Project does not meet the criteria of project types located near sensitive receptor land uses to be evaluated for exposure to substantial pollutants.</p> <p>Project development (grading and construction activities) will generate pollutants such as those emanating from construction equipment exhaust emissions/vehicle trips and fugitive dust from soil movement. Although the Project development (grading, paving, construction, and architectural coating) timeframe is not known at this time, it is assumed the initial phase of Project development will occur in 2019 and be open by 2020, with the remaining phases of Project development to continue after 2020. Grading construction activity in 2020 is assumed to generate emissions that exceed the Antelope Valley Air Quality Management District Regional Emissions Significant Thresholds.</p> <p>Construction activities for large development projects as estimated by the United States Environmental Protection Agency can be reduced by 50 percent if water or other soil stabilizers are used to control dust as required by Antelope Valley Air Quality Management District Rule 403. In addition, use of newer construction equipment that is manufactured with stricter emission requirements than older construction equipment will further reduce typical construction-related emission rates. Furthermore, it is typical that the greatest levels of air pollutant emissions during construction activities would occur during site grading, demolition and/or excavation. Operating more than four pieces of the largest heavy construction equipment for 8 hours a day or 6-8 pieces of smaller equipment will generate NO_x emissions in excess of the Antelope Valley Air Quality Management District's 137 pounds per day significance threshold. In general, actively disturbing 10 acres or less per day during site preparation will not generate PM₁₀ emissions greater than the daily significance threshold of 82 pounds.</p> <p>The majority of heavy construction equipment utilized during construction will be diesel fueled and thereby emit Diesel Particulate Matter (DPM). Impacts from toxic substances are related to cumulative exposure and are assessed over a 70-year period. Cancer risk is expressed as the maximum number of new cases of cancer projected to occur in a population of one million people due to exposure to the cancer-causing substance over a 70-year lifetime. Project construction of each phase is estimated to occur over a one-year period; grading is expected to occur over six months to one year. Due to the relatively short duration of construction compared to a 70-year lifespan, diesel emissions resulting from Project development are not expected to result in a significant impact.</p> <p>The sum level of Project development exposure of sensitive receptors to substantial pollutant concentrations will be potentially significant, but will be reduced to a less than significant level with implementation of Mitigation Measures identified in the Air Quality Assessment conducted for the Project and in the Project EIR.</p>					
	Source: Project Plans; Quail Valley Project Development Plan; City of Palmdale General Plan; Landrum & Brown, "Air Quality Assessment For: Quail Valley Residential Development," City of Palmdale (March 16, 2018); Antelope Valley Air Quality Management District, "Antelope Valley AQMD California Environmental Quality Act (CEQA) and Federal Conformity Guidelines (2016)					
e)	Create objectionable odor affecting a substantial number of people?				X	
	During Project development (grading; construction), there would be minimal odor emissions associated with grading and construction equipment emissions. However, these odors will be short-term in duration. Additionally, there are not significant numbers of people in the immediate vicinity of the Project site. The resultant impact level would be less than significant.					
	Source: Project Plans; Quail Valley Project Development Plan; City of Palmdale General Plan; Landrum & Brown, "Air Quality Assessment For: Quail Valley Residential Development," City of Palmdale (March 16, 2018)					
IV.	<u>BIOLOGICAL RESOURCES</u>					
	Would the project:					
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 (i.e. California		X			

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	Department of Fish and Wildlife) or U. S. Fish and Wildlife Service?				
	<p>The southern, eastern and western portions of the Project site are dominated by various woodland and chaparral species. The central and northern portions of the Project site (Area A) contain various scrub and grassland species as well as disturbed/developed areas. All shrubs and herbaceous vegetation within the 375-acre burned area were destroyed; however, most of the California junipers, oak and manzanita have recovered. The Project site contains trees, shrubs and ground cover that provide suitable habitat for nesting migratory birds. The Migratory Bird Treaty Act and California Fish and Game (Wildlife) Code prohibit impacts to nesting birds. A qualified biologist will be required to conduct nesting bird surveys prior to ground disturbance activities if vegetation is to be removed during the nesting season.</p> <p>Focused Plant Surveys conducted for the Project site in 2005, 2008, and 2014 identified two special-status plant species (Pierson's morning glory and short-joint beavertail). In addition, Joshua trees and California junipers were surveyed. Most of the Joshua trees are located within the Project development area. Eight special-status animal species were detected on the Project site during 2005 surveys. None of the species are Federally or State listed as Threatened or Endangered. Additional surveys conducted in 2017 indicated conditions on the Project site have not changed pertaining to special-status animals. Although no burrowing owls were observed on the Project site during the surveys, the Project site has the potential to support burrowing owls. Therefore, pre-disturbance surveys should be conducted for burrowing owls prior to initiation of Project development. If burrowing owls were to be detected on the Project site during pre-construction surveys, any owls should be passively excluded from the development area (outside of the breeding season) following accepted protocols. Exclusion of owls will require approval of the California State Department of Fish and Wildlife.</p> <p>This topic will be addressed in greater detail in the Project EIR and appropriate Mitigation Measures will be recommended.</p>				
	<p>Sources: Project Plans; Quail Valley Project Development Plan; City of Palmdale General Plan; Los Angeles County General Plan 2035; RMC, Geosyntec Consultants, Dr. Richard Ambrose, GreenInfo Network, Solution Strategies International, and Aubrey Dugger, "The Greater Los Angeles County Open Space for Habitat and Recreation Plan – (Integrated Regional Water Management Plan Update-2012)," (June, 2012); Glenn Lukos Associates, Inc., "Biological Technical Report for the 725-Acre Quail Valley Property, City of Palmdale, Los Angeles County, California: (September 22, 2006); Glenn Lukos Associates, Inc., "Updated Biological Survey Report for the 725-Acre Quail Valley Property, City of Palmdale, Los Angeles County, California" (June 11, 2008); Glenn Lukos Associates, Inc., "Report of Updated Rare Plant Surveys Conducted for the Approximately 880-Acre Quail Valley Project, Palmdale, Los Angeles County, California" (September 19, 2016); Glenn Lukos Associates, Inc., "Habitat Assessment Report for The Quail Valley Project – Located in the City of Palmdale, Los Angeles County, California," (August 28, 2017)</p>				
b)	Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, and regulations or by the California Department of Fish and Game (i.e. California Department of Fish and Wildlife) or U. S. Fish and Wildlife Service?		X		
	<p>The City of Palmdale recognizes action must be taken to protect and preserve desert vegetation to retain the unique natural desert aesthetics in some areas of the City and to promote the general welfare of the Palmdale community. The City of Palmdale Municipal Code contains the "Palmdale Native Desert Vegetation Ordinance" that applies to all development proposals for land that contain desert vegetation. This Ordinance establishes the minimum standard for Joshua tree/California juniper preservation for any new development at 2 trees per gross acre, averaged for the gross area of the site covered by the pertinent development application. In addition, the Ordinance provides for salvage and translocation of native desert vegetation that is unable to be preserved within a Project area.</p> <p>Approximately 2.01 acres of California Department of Fish and Wildlife jurisdiction is associated with the Project site; 1.42 acres of which consist of riparian vegetation. Impacts to California State Department of Fish and Wildlife jurisdiction will require a California Fish and Game (Wildlife) Code Section 1602 Streambed Alteration Agreement.</p> <p>This topic will be addressed in greater detail in the Project EIR and appropriate Mitigation Measures will be recommended.</p>				
	<p>Sources: Project Plans; Quail Valley Project Development Plan; City of Palmdale General Plan; Los Angeles County General Plan 2035; RMC, Geosyntec Consultants, Dr. Richard Ambrose, GreenInfo Network, Solution Strategies International, and Aubrey Dugger, "The Greater Los Angeles County Open Space for Habitat and Recreation Plan – (Integrated Regional Water Management Plan Update-2012)," (June, 2012); Glenn Lukos Associates, Inc., "Biological Technical Report for the 725-Acre Quail Valley Property, City of Palmdale, Los Angeles County, California:</p>				

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	(September 22, 2006); Glenn Lukos Associates, Inc., "Updated Biological Survey Report for the 725-Acre Quail Valley Property, City of Palmdale, Los Angeles County, California" (June 11, 2008); Glenn Lukos Associates, Inc., "Report of Updated Rare Plant Surveys Conducted for the Approximately 880-Acre Quail Valley Project, Palmdale, Los Angeles County, California" (September 19, 2016); Glenn Lukos Associates, "Jurisdictional Delineation Report for the Quail Valley Project, Palmdale, Los Angeles County, California," (August 28, 2017)				
c)	Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?				X
	The jurisdictional delineation report (July 28, 2017) conducted for the Project site identified four distinct drainage systems that generally drain from the southwest to the northeast. One of the drainage systems exhibits an ordinary high water mark and a discernible streambed and thereby has been identified as jurisdictional. Approximately 0.60 acre of potential Lahontan Regional Water Quality Control Board jurisdiction is associated with the Project site, none of which consist of jurisdictional wetlands. Since the Project site does not contain waters of the United States, a Clean Water Act Section 404 permit will not be required from the Army Corps of Engineers and a Clean Water Act Section 401 Water Quality Certification will not be required from the Regional Water Quality Control Board. However, the Regional Water Quality Control Board may require the Project to obtain authorization through the Waste Discharge Requirements for impacts to waters of the State. Therefore, Project development and operation will not adversely affect federally protected wetlands. No impact to federally protected wetlands will result.				
	Sources: Project Plans; Quail Valley Project Development Plan; City of Palmdale General Plan 2035; Los Angeles County General Plan; RMC, Geosyntec Consultants, Dr. Richard Ambrose, GreenInfo Network, Solution Strategies International, and Aubrey Dugger, "The Greater Los Angeles County Open Space for Habitat and Recreation Plan – (Integrated Regional Water Management Plan Update-2012)," (June, 2012); Glenn Lukos Associates, "Jurisdictional Delineation Report for the Quail Valley Project, Palmdale, Los Angeles County, California," (August 28, 2017); Lahontan Water District				
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		
	The earlier habitat surveys evaluated wildlife species on the Project site. Habitat assessments generally were performed for special-status animals and separate assessments were performed for the Mohave ground squirrel and burrowing owl. No suitable Mohave ground squirrel habitat was identified on the Project site. It was determined in the 2017 Habitat Assessment that conditions had not changed regarding the potential for the Mohave ground squirrel to occur at the Project site and therefore no focused surveys were warranted. No burrowing owls or owl sign were observed within the Project site during the 2005 focused surveys. No burrowing owls were observed during subsequent surveys of the Project site although the Project site has the potential to support burrowing owls. Therefore, the resultant impact of Project development could be potentially significant. In addition, the Project site contains trees, shrubs and ground cover that provide suitable habitat for nesting migratory birds. Impacts to nesting birds are prohibited under the Migratory Bird Treaty Act and the California Fish and Game (Wildlife) Code. Project development could result in a potentially significant impact to nesting birds. These topics will be addressed in greater detail in the Project EIR and appropriate Mitigation Measures will be recommended.				
	Sources: Project Plans; Quail Valley Project Development Plan; City of Palmdale General Plan; Los Angeles County General Plan 2035; RMC, Geosyntec Consultants, Dr. Richard Ambrose, GreenInfo Network, Solution Strategies International, and Aubrey Dugger, "The Greater Los Angeles County Open Space for Habitat and Recreation Plan – (Integrated Regional Water Management Plan Update-2012)," (June, 2012)				
e)	Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinances?		X		
	Mountains in the southern portion of the Project site are dominated by California juniper woodland, California juniper-Tucker scrub oak woodland, and semi-desert chaparral. The eastern portion of the Project site consists of rolling hills dominated by California juniper woodland and California juniper-Tucker scrub oak woodland. The western portion of the Project site consists of rolling hills dominated by post-burned California juniper-oak woodland and Mohave mixed woody scrub. The central and northern portions of the Project site consist of lowlands dominated by big sagebrush scrub, rabbitbrush scrub, Mohave mixed woody scrub, ruderal vegetation/non-native grassland, and disturbed/developed areas. Two special-status				

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	<p>plant species (Pierson's morning glory and short-joint beavertail) were identified and mapped on the Project site during 2005 focused surveys. An area encompassing 37.27 acres on the Project site supports Pierson's morning glory. Fifty individual short-joint beavertail have been identified on the Project site. Vegetation in the northern and western portions of the Project was not affected by the 2005 wildfire that burned approximately 375 acres in the central and southern portions of the Project site.</p> <p>The City of Palmdale recognizes action must be taken to protect and preserve desert vegetation to retain the unique natural desert aesthetics in some areas of the City and to promote the general welfare of the Palmdale community. The City of Palmdale Municipal Code contains the "Palmdale Native Desert Vegetation Ordinance" that applies to all development proposals for land that contain desert vegetation. This Ordinance establishes the minimum standard for Joshua tree/California juniper preservation for any new development at 2 trees per gross acre, averaged for the gross area of the site covered by the pertinent development application. In addition, the Ordinance provides for salvage and translocation of native desert vegetation that is unable to be preserved within a Project area.</p> <p>The 2007 Biological Technical Report noted eight special-status animal species on the Project site. However, none of the identified species are Federally or State listed as Threatened or Endangered. Based on 2017 surveys, conditions on the Project site had not changed with regard to special-status animals. Project development could result in a potentially significant impact to the special-status species.</p> <p>This topic will be addressed in greater detail in the Project EIR and appropriated Mitigation Measures will be recommended.</p>					
	<p>Sources: Project Plans; Quail Valley Project Development Plan; City of Palmdale General Plan; Los Angeles County General Plan 2035; RMC, Geosyntec Consultants, Dr. Richard Ambrose, GreenInfo Network, Solution Strategies International, and Aubrey Dugger, "The Greater Los Angeles County Open Space for Habitat and Recreation Plan – (Integrated Regional Water Management Plan Update-2012)," (June, 2012); Glenn Lukos Associates, Inc., "Biological Technical Report for the 725-Acre Quail Valley Property, City of Palmdale, Los Angeles County, California: (September 22, 2006); Glenn Lukos Associates, Inc., "Updated Biological Survey Report for the 725-Acre Quail Valley Property, City of Palmdale, Los Angeles County, California" (June 11, 2008); Glenn Lukos Associates, Inc., "Report of Updated Rare Plant Surveys Conducted for the Approximately 880-Acre Quail Valley Project, Palmdale, Los Angeles County, California" (September 19, 2016); Glenn Lukos Associates, "Jurisdictional Delineation Report for the Quail Valley Project, Palmdale, Los Angeles County, California," (August 28, 2017)</p>					
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	
	<p>Los Angeles County has identified two Significant Ecological Areas near the Project site. Project development will not interfere directly or conflict with ecological provisions in these areas. Therefore, any Project-generated impact will be less than significant.</p> <p>This topic will be addressed in greater detail in the Project EIR.</p>					
	<p>Sources: Project Plans; Quail Valley Project Development Plan; City of Palmdale General Plan; Los Angeles County General Plan 2035; RMC, Geosyntec Consultants, Dr. Richard Ambrose, GreenInfo Network, Solution Strategies International, and Aubrey Dugger, "The Greater Los Angeles County Open Space for Habitat and Recreation Plan – (Integrated Regional Water Management Plan Update-2012)," (June, 2012); Glenn Lukos Associates, Inc., "Biological Technical Report for the 725-Acre Quail Valley Property, City of Palmdale, Los Angeles County, California: (September 22, 2006); Glenn Lukos Associates, Inc., "Updated Biological Survey Report for the 725-Acre Quail Valley Property, City of Palmdale, Los Angeles County, California" (June 11, 2008); Glenn Lukos Associates, Inc., "Report of Updated Rare Plant Surveys Conducted for the Approximately 880-Acre Quail Valley Project, Palmdale, Los Angeles County, California" (September 19, 2016); Glenn Lukos Associates, "Jurisdictional Delineation Report for the Quail Valley Project, Palmdale, Los Angeles County, California," (August 28, 2017)</p>					

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V. CULTURAL RESOURCES					
Would the project:					
a)	Cause a substantial adverse change in the significance of a historical resource as defined in § 15064.5?				X
	<p>There is one recorded tribal cultural resource within the Project development area boundary. The development is designed to avoid the site and its surrounding areas entirely. The resource will be preserved in place within a Homeowners Association common area open space lot in a manner consistent with intended preservation of known archaeological sites. Therefore, the site will not be impacted by Project development or operation. A historic (and active) transmission line exists across the designed open space area of the Project site.</p> <p>The resultant level of impact of Project development and operation will be less than significant.</p> <p>Although Project development will not result in any impact to the recorded tribal cultural resource, the "Tribal Cultural Resources" section (Section XVII) of this Initial Study contains Mitigation Measures pertaining to full-time monitoring of all earth moving activities to ensure protection of Native American cultural resources.</p>				
	Sources: City of Palmdale General Plan; Quail Valley Project Development Plan; Los Angeles County General Plan 2035; Cogstone, "Confidential Cultural and Paleontological Assessment Report and Mitigation Plan – Update for the Quail Valley Project, California," (February, 2017)				
b)	Cause a substantial adverse change in the significance of an archaeological resource pursuant to § 15064.5?			X	
	<p>Refer to V(a) above. Thirty-five prehistoric sites were identified during surveys of the Anaverde Valley.</p> <p>The Project Environmental Impact Report will recommend appropriate Mitigation Measures that will ensure any impacts will be reduced to a less than significant level.</p>				
	Sources: City of Palmdale General Plan; Quail Valley Project Development Plan; Los Angeles County General Plan 2035; Cogstone, "Confidential Cultural and Paleontological Assessment Report and Mitigation Plan – Update for the Quail Valley Project, California," (February, 2017)				
c)	Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?			X	
	<p>There are no recorded paleontological localities within the Project development area or within a one-mile radius of the Project site. The Cogstone-produced Cultural Resources report, cited below, indicates that the potential for paleontological resources is low until grading exceeds 10 feet below the current ground surface. The potential exists that significant vertebrate fossils may exist in deeper levels of the Quaternary Alluvium soil in the northern portion of the Project site (Area A). The limited area of deep grading will require full-time paleontological monitoring to ensure any impacts will be reduced to a less than significant level.</p>				
	Sources: Quail Valley Project Development Plan; City of Palmdale General Plan; Los Angeles County General Plan 2035; Cogstone, "Confidential Cultural and Paleontological Assessment Report and Mitigation Plan – Update for the Quail Valley Project, California," (February, 2017)				
d)	Disturb any human remains, including those interred outside of formal cemeteries?			X	
	<p>In that the Anaverde Valley was utilized by prehistoric peoples, the possibility exists that human remains may be encountered during Project development. California Health and Safety Code requirements and City of Palmdale reporting requirements will be implemented should such remains be encountered. The EIR will contain appropriate Mitigation Measures.</p> <p>The Project Environmental Impact Report will address this impact in greater detail and recommend appropriate Mitigation Measures.</p>				
	Sources: City of Palmdale General Plan; Los Angeles County General Plan 2035; Cogstone, "Confidential Cultural and Paleontological Assessment Report and Mitigation Plan – Update for the Quail Valley Project, California," (February, 2017)				

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VI.		GEOLOGY AND SOILS					
		Would the project:					
	a)	Expose people or structures to 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?				X	
		<p>The Project site does not contain an Alquist-Priolo Special Studies Zone, as identified by the California State Department of Mines and Geology. The Alquist-Priolo Earthquake Fault Zoning Act provides for delineation of rupture zones along active faults in California. The purpose of the Alquist-Priolo Act is to regulate development on/near fault traces to reduce the hazard of fault rupture and to prohibit location of most structures for human occupancy across the traces.</p> <p>The Project site is located within Seismic Zone 4. Forty-seven faults or fault segments have been identified within a 60-mile radius of the Project site. The San Andreas Fault Zone, which has experienced movement within the last 150 years, is approximately 1.2 miles north of the Project site. This Fault Zone is considered the most significant earthquake threat in California. There are several splays (faults that extend out at obtuse or awkward angles) in the vicinity of Palmdale that could experience movement. The subsidiary faults that are active and that could experience movement resulting from San Andreas Fault movement include the Cemetery Fault, the Nadeau Fault, and the Littlerock Fault. The Vincent Thrust Fault intersects the center of the Project site. The Vincent Thrust Fault is considered Pre-Quaternary; that is, it has had no recognized displacement in more than 700,000 years. Other principal faults capable of producing significant ground shaking in the Palmdale area include the Garlock Fault (28.8 miles northwest of the Project site), White Wolf Fault (50 miles northwest of the Antelope Valley vicinity), and Sierra Madre (San Fernando) Fault (24 miles south of Palmdale). Seismically induced ground rupture is defined as the physical displacement of surface deposits in response to an earthquake's seismic waves. Magnitude, sense and nature of fault rupture can vary for different faults or along different segments of the same fault. Ground rupture is considered more likely along active faults.</p> <p>Although it is probable earthquake faults in the Project vicinity will move in the future, it is unlikely ground rupture will occur at the Project site because the Project site is not located within an Alquist-Priolo Earthquake Fault Zone or within 500 feet of a known active fault trace. Therefore, the potential for ground rupture during a seismic event would yield an impact level of less than significant.</p> <p>This topic will be addressed in greater detail in the Project EIR.</p>					
		<p>Sources: Project Plans; Quail Valley Project Development Plan; City of Palmdale General Plan; Los Angeles County General Plan 2035; Pacific Soils Engineering, Inc., "Preliminary Geotechnical Review, Tentative Tract Map No. 65813, Quail Valley Project, Southwesterly Adjacent to Intersection of West Avenue S and Tovey Avenue, City of Palmdale, California," Volumes I and II (October 2, 2006); Pacific Soils Engineering, Inc., "Response to Review Comments, Tentative Tract Map No. 65813, Quail Valley Project, Southwesterly Adjacent to Intersection of West Avenue S and Tovey Avenue, City of Palmdale, California" (November 30, 2007); Pacific Soils Engineering, Inc., "Response to Comments, Tentative Tract Map No. 65813, Quail Valley Project, Southwesterly Adjacent to Intersection of West Avenue S and Tovey Avenue, City of Palmdale, California" (January 8, 2008); Pacific Soils Engineering, Inc., "Supplemental Geotechnical Investigation and Response to Review Comments, Tentative Tract Map No. 65813, Quail Valley Project, Southwesterly Adjacent to Intersection of West Avenue S and Tovey Avenue, City of Palmdale, California" (June 25, 2007); Petra Geosciences, "Updated Geotechnical Report, Tract 65813, Quail Valley Project, Proposed Residential Development, APN 3054-004-016 and APN 3054-003-101, Southwesterly Adjacent to Intersection of West Avenue S and Tovey Avenue, City of Palmdale, California," (June 12, 2017)</p>					
	ii)	Strong seismic ground shaking?			X		
		<p>The California Seismic Hazards Mapping Act (1991) was instituted to protect the public from effects of strong ground shaking, liquefaction, landslides and other ground failure, and from other hazards caused by earthquakes. The Act requires the State Geologist to delineate various seismic hazard zones and requires local permitting agencies to regulate certain development projects within the zones.</p>					

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			<p>The Project site is in a seismically active area in California although the Project site is not within an Alquist-Priolo Earthquake Fault Zone. Strong seismic ground shaking emanating from regional and local fault activities is a geologic hazard related to earthquakes that potentially could affect the Project site. However, compliance with Uniform Building Code required design standards and County of Los Angeles Building Standards will ensure Project-related impacts related to exposure of persons or structures to strong seismic ground shaking will be reduced to a less than significant level.</p> <p>The Project Environmental Impact Report will address this impact in greater detail and recommend appropriate Mitigation Measures that will ensure any impacts will be reduced to a less than significant level.</p>					
			<p>Sources: Project Plans; Quail Valley Project Development Plan; City of Palmdale General Plan; Los Angeles County General Plan 2035; Pacific Soils Engineering, Inc., "Preliminary Geotechnical Review, Tentative Tract Map No. 65813, Quail Valley Project, Southwesterly Adjacent to Intersection of West Avenue S and Tovey Avenue, City of Palmdale, California," Volumes I and II (October 2, 2006); Pacific Soils Engineering, Inc., "Response to Review Comments, Tentative Tract Map No. 65813, Quail Valley Project, Southwesterly Adjacent to Intersection of West Avenue S and Tovey Avenue, City of Palmdale, California" (November 30, 2007); Pacific Soils Engineering, Inc., "Response to Comments, Tentative Tract Map No. 65813, Quail Valley Project, Southwesterly Adjacent to Intersection of West Avenue S and Tovey Avenue, City of Palmdale, California" (January 8, 2008); Pacific Soils Engineering, Inc., "Supplemental Geotechnical Investigation and Response to Review Comments, Tentative Tract Map No. 65813, Quail Valley Project, Southwesterly Adjacent to Intersection of West Avenue S and Tovey Avenue, City of Palmdale, California" (June 25, 2007); Petra Geosciences, "Updated Geotechnical Report, Tract 65813, Quail Valley Project, Proposed Residential Development, APN 3054-004-016 and APN 3054-003-101, Southwesterly Adjacent to Intersection of West Avenue S and Tovey Avenue, City of Palmdale, California," (June 12, 2017)</p>					
		iii)	<p>Seismic-related ground failure, including liquefaction?</p>			X		
			<p>Ground failure is a general term describing some secondary effects of an earthquake. Types of ground failure that can occur are liquefaction, landslides, and settlement of unconsolidated soil, ground lurching, and shallow ground failure. Liquefaction occurs when ground motion causes water saturated sand or silt to behave as a viscous fluid and can cause settlement on the ground surface, tilting of engineering structures, flotation of buried structures, and fissuring of the ground surface.</p> <p>The California Geological Survey (Seismic Hazard Map, Ritter Ridge Quadrangle, 2003) has placed a portion of the Project in a zone of required investigation for liquefaction potential. The Project site is considered to be susceptible to liquefaction and seismic settlement due to soil grain size, soil grain type, and soil plasticity. However, the potential for liquefaction on the Project site is considered to be minimal due to the granular nature of on-site materials and the absence of a high water table. In 2005, the California State Department of Mining and Geology released its official seismic hazard zone maps for the Lancaster West USGS Quadrangle, within which the Project is located. The maps depict no seismic hazards on the Project site, with the exception of soils within Amargosa Creek that are subject to liquefaction during a major earthquake.</p> <p>Areas within the Project site that are covered by younger alluvium will have a potential for liquefaction.</p> <p>The Project Environmental Impact Report will address this impact in greater detail and recommend appropriate Mitigation Measures that will ensure any impacts will be reduced to a less than significant level.</p>					
			<p>Sources: Project Plans; Quail Valley Project Development Plan; City of Palmdale General Plan; Los Angeles County General Plan 2035; Pacific Soils Engineering, Inc., "Preliminary Geotechnical Review, Tentative Tract Map No. 65813, Quail Valley Project, Southwesterly Adjacent to Intersection of West Avenue S and Tovey Avenue, City of Palmdale, California," Volumes I and II (October 2, 2006); Pacific Soils Engineering, Inc., "Response to Review Comments, Tentative Tract Map No. 65813, Quail Valley Project, Southwesterly Adjacent to Intersection of West Avenue S and Tovey Avenue, City of Palmdale, California" (November 30, 2007); Pacific Soils Engineering, Inc., "Response to Comments, Tentative Tract Map No. 65813, Quail Valley Project, Southwesterly Adjacent to Intersection of West Avenue S and Tovey Avenue, City of Palmdale, California" (January 8, 2008); Pacific Soils Engineering, Inc., "Supplemental Geotechnical Investigation and Response to Review Comments, Tentative Tract Map No. 65813, Quail Valley Project, Southwesterly Adjacent to Intersection of West Avenue S and Tovey Avenue, City of Palmdale, California" (June 25, 2007); Petra Geosciences, "Updated Geotechnical Report, Tract 65813, Quail Valley Project, Proposed Residential Development, APN</p>					

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	iv)	Landslides?			X		
		Refer to VI(iii) above. The Project site topography consists of a central valley that slopes upward to the west, south and east from rolling hills to steeper mountains to the south. Project site elevations range from approximately 3,000-4,000 feet mean sea level. A portion of the Project site is within a hillside region. The Project Environmental Impact Report will address this impact in greater detail and recommend appropriate Mitigation Measures that will ensure any impacts will be reduced to a less than significant level.					
		Sources: Project Plans; Quail Valley Project Development Plan; City of Palmdale General Plan; Los Angeles County General Plan 2035; Pacific Soils Engineering, Inc., “Preliminary Geotechnical Review, Tentative Tract Map No. 65813, Quail Valley Project, Southwesterly Adjacent to Intersection of West Avenue S and Tovey Avenue, City of Palmdale, California,” Volumes I and II (October 2, 2006); Pacific Soils Engineering, Inc., “Response to Review Comments, Tentative Tract Map No. 65813, Quail Valley Project, Southwesterly Adjacent to Intersection of West Avenue S and Tovey Avenue, City of Palmdale, California” (November 30, 2007); Pacific Soils Engineering, Inc., “Response to Comments, Tentative Tract Map No. 65813, Quail Valley Project, Southwesterly Adjacent to Intersection of West Avenue S and Tovey Avenue, City of Palmdale, California” (January 8, 2008); Pacific Soils Engineering, Inc., “Supplemental Geotechnical Investigation and Response to Review Comments, Tentative Tract Map No. 65813, Quail Valley Project, Southwesterly Adjacent to Intersection of West Avenue S and Tovey Avenue, City of Palmdale, California” (June 25, 2007); Petra Geosciences, “Updated Geotechnical Report, Tract 65813, Quail Valley Project, Proposed Residential Development, APN 3054-004-016 and APN 3054-003-101, Southwesterly Adjacent to Intersection of West Avenue S and Tovey Avenue, City of Palmdale, California,” (June 12, 2017)					
	b)	Result in substantial soil erosion or the loss of topsoil?				X	
		Geologic hazards specific to the Project site include seismically induced hazards, hillside development hazards, and soil hazards. Exhibit 2-2 in the “Quail Valley Planned Development” depicts hillside slope areas. The proposed development generally would occur in areas within Area A with slope gradients of 0-10% (266.2 acres). These areas would accommodate 667 dwelling units. No units are proposed within Area B. Landform preservation techniques involve protection of primary ridgelines surrounding the development area. Grading that occurs within the edges of the valley will utilize variations to slope gradients, contour, landform and daylight grading, and will incorporate selected landscape elements to minimize impacts on the natural terrain. Grading associated with Project development will include extensive alluvial removals. As designed and provided in the Planned Development, the Project grading is consistent with City of Palmdale grading standards and design objectives for hillside developments, including the standards listed in Sections 100.13 and 100.14 of the City Hillside Management Ordinance. Project development will result in covering much of Area A with non-erosive surfaces, which would result in a less than significant impact. In addition, the normal slope revegetation program will ensure Project development impacts related to soil erosion will be less than significant. This topic will be addressed in greater detail in the Project EIR.					
		Sources: Project Plans; Quail Valley Project Development Plan; City of Palmdale General Plan; Los Angeles County General Plan 2035; Pacific Soils Engineering, Inc., “Preliminary Geotechnical Review, Tentative Tract Map No. 65813, Quail Valley Project, Southwesterly Adjacent to Intersection of West Avenue S and Tovey Avenue, City of Palmdale, California,” Volumes I and II (October 2, 2006); Pacific Soils Engineering, Inc., “Response to Review Comments, Tentative Tract Map No. 65813, Quail Valley Project, Southwesterly Adjacent to Intersection of West Avenue S and Tovey Avenue, City of Palmdale, California” (November 30, 2007); Pacific Soils Engineering, Inc., “Response to Comments, Tentative Tract Map No. 65813, Quail Valley Project, Southwesterly Adjacent to Intersection of West Avenue S and Tovey Avenue, City of Palmdale, California” (January 8, 2008); Pacific Soils Engineering, Inc., “Supplemental Geotechnical Investigation and Response to Review Comments, Tentative Tract Map No. 65813, Quail Valley Project, Southwesterly Adjacent to Intersection of West Avenue S and Tovey Avenue, City of Palmdale, California” (June 25, 2007); Petra Geosciences, “Updated Geotechnical Report, Tract 65813, Quail Valley Project, Proposed Residential Development, APN 3054-004-016 and APN 3054-003-101, Southwesterly Adjacent to Intersection of West Avenue S and Tovey Avenue, City of Palmdale, California,” (June 12, 2017)					
	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		

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	<p>Reference VI(b) above. Natural slopes adjacent to the Area A development area have potential slope instability due to existing landslides or adverse geologic structure. Grading proposed near, or at the base or toe of, natural slopes would expose the planes of weakness and create an adverse slope stability condition.</p> <p>There is a potential for landslides within the hillside portions of the Project site. Most hillside areas are planned for open space. The design techniques identified in VI(b) site design will be implemented. In addition, the Project design is subject to the City of Palmdale Hillside Management Ordinance (Chapter 17, Article 100 of the City Zoning Ordinance). Thereby, Project development has a low potential of exposing persons or structures to seismically induced landslides and the resultant impact would be less than significant. No potential exists for landslides on the flat portions of the Project site.</p> <p>The PSE Preliminary Geotechnical Review contains recommendations pertaining to grading and composition of cut and fill slopes on the Project site. These will be incorporated into the EIR as Mitigation Measures and will reduce potentially significant impacts pertaining to grading or cut/fill slope stability to a less than significant level.</p>					
	<p>Sources: Project Plans; Quail Valley Project Development Plan; City of Palmdale General Plan; Los Angeles County General Plan 2035; Pacific Soils Engineering, Inc., "Preliminary Geotechnical Review, Tentative Tract Map No. 65813, Quail Valley Project, Southwesterly Adjacent to Intersection of West Avenue S and Tovey Avenue, City of Palmdale, California," Volumes I and II (October 2, 2006); Pacific Soils Engineering, Inc., "Response to Review Comments, Tentative Tract Map No. 65813, Quail Valley Project, Southwesterly Adjacent to Intersection of West Avenue S and Tovey Avenue, City of Palmdale, California" (November 30, 2007); Pacific Soils Engineering, Inc., "Response to Comments, Tentative Tract Map No. 65813, Quail Valley Project, Southwesterly Adjacent to Intersection of West Avenue S and Tovey Avenue, City of Palmdale, California" (January 8, 2008); Pacific Soils Engineering, Inc., "Supplemental Geotechnical Investigation and Response to Review Comments, Tentative Tract Map No. 65813, Quail Valley Project, Southwesterly Adjacent to Intersection of West Avenue S and Tovey Avenue, City of Palmdale, California" (June 25, 2007); Petra Geosciences, "Updated Geotechnical Report, Tract 65813, Quail Valley Project, Proposed Residential Development, APN 3054-004-016 and APN 3054-003-101, Southwesterly Adjacent to Intersection of West Avenue S and Tovey Avenue, City of Palmdale, California," (June 12, 2017)</p>					
d)	Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code, creating substantial risks to life or property?				X	
	<p>Most soils and bedrock material on the Project site (when tested in accordance with Uniform Building Code Standard 18-2) typically possess expansion potential in the "very low" range. However, geologic testing on the Project site indicated some alluvial and terrace deposits may possess "medium to high" expansion potential. These areas will be mixed with the underlying granular soils during grading operations. Thereby, the potential for significant impacts on structures built on the Project site from shrinking and swelling of expansive soils is considered to be less than significant.</p> <p>This topic will be addressed in greater detail in the Project EIR.</p>					
	<p>Sources: Project Plans; Quail Valley Project Development Plan; City of Palmdale General Plan; Los Angeles County General Plan 2035; Pacific Soils Engineering, Inc., "Preliminary Geotechnical Review, Tentative Tract Map No. 65813, Quail Valley Project, Southwesterly Adjacent to Intersection of West Avenue S and Tovey Avenue, City of Palmdale, California," Volumes I and II (October 2, 2006); Pacific Soils Engineering, Inc., "Response to Review Comments, Tentative Tract Map No. 65813, Quail Valley Project, Southwesterly Adjacent to Intersection of West Avenue S and Tovey Avenue, City of Palmdale, California" (November 30, 2007); Pacific Soils Engineering, Inc., "Response to Comments, Tentative Tract Map No. 65813, Quail Valley Project, Southwesterly Adjacent to Intersection of West Avenue S and Tovey Avenue, City of Palmdale, California" (January 8, 2008); Pacific Soils Engineering, Inc., "Supplemental Geotechnical Investigation and Response to Review Comments, Tentative Tract Map No. 65813, Quail Valley Project, Southwesterly Adjacent to Intersection of West Avenue S and Tovey Avenue, City of Palmdale, California" (June 25, 2007); Petra Geosciences, "Updated Geotechnical Report, Tract 65813, Quail Valley Project, Proposed Residential Development, APN 3054-004-016 and APN 3054-003-101, Southwesterly Adjacent to Intersection of West Avenue S and Tovey Avenue, City of Palmdale, California," (June 12, 2017)</p>					
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	
	<p>All residential lots and the recreation lot will be connected to the principal sewer system, with the exception of the future large (equestrian) lots in Area A. Those lots will each have a septic system. All soils on site can adequately support use of septic tanks or alternative waste water disposal systems because Los Angeles County Department of Public Health requirements</p>					

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	for percolation testing have been considered in Project design. Technical studies conducted for the Project indicated no geologic, soils or seismic constraints would preclude the development of the Project site as proposed. Therefore, the resultant impact level of Project development and operation will be less than significant.					
	If the County of Los Angeles and/or City of Palmdale have adopted requirements for individual lot percolation testing the Project EIR will address such in greater detail.					
	Sources: Project Plans; Quail Valley Project Development Plan; City of Palmdale General Plan; Los Angeles County General Plan 2035; Pacific Soils Engineering, Inc., "Preliminary Geotechnical Review, Tentative Tract Map No. 65813, Quail Valley Project, Southwesterly Adjacent to Intersection of West Avenue S and Tovey Avenue, City of Palmdale, California," Volumes I and II (October 2, 2006); Pacific Soils Engineering, Inc., "Response to Review Comments, Tentative Tract Map No. 65813, Quail Valley Project, Southwesterly Adjacent to Intersection of West Avenue S and Tovey Avenue, City of Palmdale, California" (November 30, 2007); Pacific Soils Engineering, Inc., "Response to Comments, Tentative Tract Map No. 65813, Quail Valley Project, Southwesterly Adjacent to Intersection of West Avenue S and Tovey Avenue, City of Palmdale, California" (January 8, 2008); Pacific Soils Engineering, Inc., "Supplemental Geotechnical Investigation and Response to Review Comments, Tentative Tract Map No. 65813, Quail Valley Project, Southwesterly Adjacent to Intersection of West Avenue S and Tovey Avenue, City of Palmdale, California" (June 25, 2007); Petra Geosciences, "Updated Geotechnical Report, Tract 65813, Quail Valley Project, Proposed Residential Development, APN 3054-004-016 and APN 3054-003-101, Southwesterly Adjacent to Intersection of West Avenue S and Tovey Avenue, City of Palmdale, California," (June 12, 2017)					
VII.	<u>GREENHOUSE GAS EMISSIONS</u>					
	<u>Would the project:</u>					
a)	Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?				X	
	Project development and operation will result in generation of greenhouse gas emissions associated with construction vehicle and equipment usage, residential unit and roadway construction, and operational emissions including motor vehicle use, electricity generation and consumption, water provision, and natural gas generation and consumption. Emissions generated by Project development and operation will contribute a minor amount to the overall global carbon emissions level (0.00004 percent of annual Greenhouse Gas Emissions) and will not exceed annual CO ₂ equivalent emissions of the Antelope Valley Air Quality Management District. Therefore, Project development and operation will not result in significant Greenhouse Gas Emissions and will have a less than significant impact on the environment. The Project Environmental Impact Report will address this topic in greater detail and identify commonly-used measures that will contribute to maintaining a less than significant impact related to Greenhouse Gas Emissions.					
	Sources: Project Plans; Quail Valley Project Development Plan; Landrum & Brown, "Greenhouse Gas Assessment For: Quail Valley Residential Development, City of Palmdale," (March 16, 2018)					
b)	Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?				X	
	The California Air Resources Board and the Antelope Valley Air Quality Management District have been working to establish significance thresholds for greenhouse gas emissions impacts, have published draft thresholds for review and comment, but have not adopted significance thresholds applicable to general projects. Project development and operation will not conflict with United States Environmental Protection Agency Clean Air Act enforcement or establishment of the national air quality standards pertaining to seven criteria pollutants (Ozone; Carbon Dioxide; Nitrous Oxide; Sulfur Dioxide; Particulate Matter [2.5 and 10 microns]; and, Lead). In addition, Project development and operation will not conflict with California Clean Air Act implementation that responds to the federal Clean Air Act requirements and for regulating emissions from motor vehicles and consumer products within California as well as setting health-based air quality standards and control measures for toxic air contaminants. The California Clean Air Act established a legal mandate for air basins to achieve California ambient air quality standards. The State standards apply to the same seven criterial pollutants as the federal Clean Air Act, but also include sulfates, visibility-reducing particles, hydrogen sulfide, and vinyl chloride. Some California standards are more stringent than corresponding federal standards. The Antelope Valley Air Quality Management District 2008 Ozone Attainment Plan establishes a plan to implement, maintain and enforce measures necessary to bring the Antelope Valley into attainment with California and federal Ozone standards.					

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		<p>The State of California has adopted many laws and policies pertaining to reduction of greenhouse gas emissions. The California Global Warming Solutions Act of 2006 (Assembly Bill 32) commits California to reduce greenhouse gas emissions in California to 1990 levels by 2020 and to 80 percent below 1990 levels by 2050, but does not mandate that each individual city adopt its own greenhouse gas reduction plan to meet Assembly Bill 32 targets. The California Sustainable Communities and Climate Protection Act of 2008 (Senate Bill 375), among other provisions, requires the South Coast Air Quality Management District to develop a "Sustainable Communities Strategy" (since adopted) to meet Assembly Bill 32 targets on a regional basis through coordinated land use and transportation planning. Other important actions by the State of California include the following: Senate Bill 743; Senate Bill 32; Senate Bill 97; State of California Code of Regulations, Title 24-Energy Building Regulations; Assembly Bill 1358; Assembly Bill 811; Assembly Bill 1493; Senate Bill 1078; Senate Bill 1368; Senate Bill 7; Senate Bill 407; Assembly Bill 939; Senate Bill 1016; and Assembly Bill 341. In addition, Governor Brown issued Executive Order B-30-15 in 2015, which established a California Greenhouse Gas Emissions reduction target of 40 percent below 1990 levels by 2030 and requires all State agencies with jurisdiction over sources of Greenhouse Gas Emissions to participate and agencies to prepare implementation plans. Two other Executive Orders (S-3-05 and S-1-07) also pertain to reduction of Greenhouse Gas Emissions.</p> <p>The City of Palmdale has not adopted a Greenhouse Gas Emissions Reduction Plan. Project development and operation will not generate sufficient Emissions to be in conflict with federal or State regulations. Therefore, Project development and operation will not conflict with any applicable plans, policies or regulations adopted for the purpose of reducing Greenhouse Gas Emissions. The resultant impact level is less than significant.</p>				
		<p>Sources: Project Plans; Quail Valley Project Development Plan; Los Angeles County General Plan 2035; Landrum & Brown, "Greenhouse Gas Assessment For: Quail Valley Residential Development, City of Palmdale," (March 16, 2018); City of Palmdale, "Energy Action Plan" (August 3, 2011)</p>				
VIII.		<p><u>HAZARDS AND HAZARDOUS MATERIALS</u></p> <p>Would the project:</p>				
	a)	Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?				X
		<p>Project development may include temporary transport, storage and use of potentially hazardous materials, including fuels, lubricating fluids, cleaners and solvents. Transport of such materials will be subject to federal, State and local regulations to assure risks associated with transport are minimized. Additionally, construction activities that transport hazardous materials will be required to transport such materials along designated roadways to limit any risk of upset. Also, Project operation (residential uses) generally require use or storage of small quantities of hazardous materials. Small amounts of products that contain hazardous materials possibly could be used for cleaning and maintenance of dwellings and the recreation area. However, such use would not pose a significant risk to public health and safety. Therefore, the level of impact of Project development and operation related to creation of a significant hazard to the public or the environment through routine transport, use or disposal of hazardous materials would be less than significant.</p> <p>This topic will be addressed in greater detail in the Project EIR.</p>				
		<p>Sources: Project Plans; Quail Valley Project Development Plan; City of Palmdale General Plan</p>				
	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
		<p>Proposed residential and recreational uses on the Project site could involve use, storage, disposal or transportation of hazardous materials. However, during Project development there would be a possibility of accidental release of hazardous substances such as spilling petroleum-based fuels used for construction equipment. These materials likely would be limited to solvents, paints, chemicals used for cleaning and building maintenance, and landscaping chemicals and thereby would not differ substantially from household chemicals and solvents widely used throughout existing residential uses in the Project vicinity. Compliance with existing laws and regulations governing transport, use, release and storage of hazardous materials and wastes and compliance with City of Palmdale policies/standard construction practices would reduce potential impacts related to exposure of the public, Project residents and Project visitors or the environment to hazardous materials to a less than significant level.</p> <p>This topic will be addressed in greater detail in the Project EIR.</p>				

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	Sources: Project Plans; Quail Valley Project Development Plan; City of Palmdale General Plan				
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
	The Project site is not located within one-quarter mile of a school. The schools closest to the Project site are the following: Anaverde Hills School (1.5 miles to the west); Ocotillo Elementary School (2.0 miles to the north); Palm Tree Elementary School (2 miles to the northeast); Juniper Middle School (5.6 miles to the north; and, Antelope Valley Union High School (10.3 miles to the northeast). Therefore, no impact will result from Project development or operation.				
	Sources: Project Plans; Quail Valley Project Development Plan; City of Palmdale General Plan				
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
	Previous searches of federal and State environmental database records pertaining to the Project site and vicinity indicated the Project site is not listed as a hazardous materials site pursuant to Government Code Section 65962.5. However, the Antelope Valley Public Landfill is located within one-half mile of the Project site and is listed on the Leaking Underground Storage Tank list, Solid Waste Facilities/Landfill Sites database and the Waste Management Database System and is considered a Class III landfill. The leak was confirmed in 2000, but the source of the leak was undefined. In addition, it was not reported whether underground water was contaminated by the leak. Although this site was listed as a Registered Underground Storage Tank site and listed as a 380-gallon gasoline tank, no leaks had been reported for this tank. Therefore, Project development is not located on a site included on a list of hazardous materials sites nor are there any hazardous materials sites in the immediate vicinity of the Project site. Thereby, Project development and operation would not create a significant hazard to the public or the environment and no impact would result.				
	Sources: Project Plans; Quail Valley Project Development Plan; City of Palmdale General Plan; Los Angeles County General Plan 2035				
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 for people residing or working in the project area?				X
	<p>The Project site is not located within an airport land use plan or within two miles of a public airport or public use airport. The Palmdale Regional Airport is 6.3 miles northeast of the Project site.</p> <p>Portions of the City of Palmdale are subject to requirements of the Air Installation Compatible Use Zone (AICUZ) Program, which is designed to protect the health, safety and welfare from noise and hazards through compatible development in the airport environment. The AICUZ study contains recommendations based on current and anticipated future aircraft and maintenance run-up operations. The study is used to assist local communities as a tool for future planning and zoning activities. The guidelines within the study provide land use recommendations for Accident Potential Zones and 4 noise zones. Accident Potential Zones are areas where an aircraft accident is likely to occur if one occurs and follow arrival, departure and pattern flight tracks and are based upon analysis of historical data. AICUZ maps define three Accident Potential Zones – a Clear Zone, Accident Potential Zone 1, and Accident Potential Zone 2. The Clear Zone extends 3,000 feet beyond the runway. Accident Potential Zone 1 extends 5,000 feet beyond the Clear Zone. Accident Potential Zone 2 extends 7,000 feet beyond Accident Potential Zone 1.</p> <p>Due to the distance from the Project site to the Palmdale Regional Airport (6.3 miles). Project development and operation would not result in a safety hazard for people residing or working in the Project area. No impact would result.</p>				
	Sources: Project Plans; Quail Valley Project Development Plan; City of Palmdale General Plan; Los Angeles County General Plan 2035				

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f)	For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?					X
	The Project site is not located within the vicinity of a private airstrip. The private airstrip nearest the Project site is the Boron Airstrip, which is 45 miles northeast of the Project site. Therefore, Project development and operation would not result in a safety hazard for people residing or working in the Project vicinity. No impact would result.					
	Sources: Project Plans; Quail Valley Project Development Plan; City of Palmdale General Plan; Los Angeles County General Plan 2035					
g)	Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?				X	
	The Antelope Valley Freeway (California State Route 14) is designated as an emergency evacuation planned route for the City of Palmdale. Therefore, Project development and operation would be required to comply with the City of Palmdale Emergency Response Plan, which would ensure any Project development and operation impacts to an adopted emergency response plan or emergency evacuation plan would be less than significant. This topic will be addressed in greater detail in the Project EIR.					
	Sources: Project Plans; Quail Valley Project Development Plan; City of Palmdale General Plan					
h)	Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?			X		
	Southern California has experienced several devastating wild fires in recent years. Urban fires pose a public safety threat within developed communities. These disasters often are due to faulty electrical wiring or mechanical equipment, combustible construction materials, absence of fire alarms and sprinkler systems, and human carelessness. Project development may expose Project residents, visitors and structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands. However, compliance with State Building Code requirements, Los Angeles County Fire Department standards related to building construction, water provision for fighting fires, and fuel modification comprise Mitigation Measures that will reduce potentially significant impact to a less than significant level. This topic will be addressed in greater detail in the Project EIR.					
	Sources: Project Plans; Quail Valley Project Development Plan; City of Palmdale General Plan; Los Angeles County General Plan 2035					
IX.	<u>HYDROLOGY AND WATER QUALITY</u>					
	Would the project:					
a)	Violate any water quality standards or waste discharge requirements?			X		
	Construction of the Project would involve ground-disturbing activities and use of heavy machinery that could release hazardous materials, including sediments and fuels. Project operation also could result in discharges of wastewater that could be contaminated and affect downstream waters. Project development would result in a significant impact to applicable water quality or waste water discharge requirements. However, compliance with permits and regulations, and implementation of Best Management Practices contained therein would ensure potential water quality impacts would be less than significant. In addition, Project development is subject to multiple permits and approvals associated with water quality protection. Implementation of City of Palmdale policies and compliance with City and State permits and regulations discussed above will ensure potential impacts to water quality that may occur during Project development and operation will be reduced to, and maintained at, a less than significant level. The Project Environmental Impact Report will address this impact in greater detail and recommend appropriate Mitigation Measures that will ensure any impacts will be reduced to a less than significant level.					

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	Sources: Project Plans; Quail Valley Project Development Plan; Stantec, “Hydrology Study for Tentative Tract Map No. 65813, City of Palmdale, County of Los Angeles,” (Revised: September 23, 2016 and October 26, 2016); Stantec, “Addendum to Hydrology Study for Tentative Tract Map No. 65813, City of Palmdale, County of Los Angeles,” (September 24, 2018)				
b)	Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g. the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?			X	
	<p>The geologic study conducted for the Project indicated that according to the State of California the historic high groundwater level near the Project site has been mapped at a depth of approximately 8 feet. Exploratory borings conducted for the geologic study encountered groundwater at a depth ranging between approximately 32 and 45 feet. The minimum depth of groundwater at the Project site was within 22 feet in the last 10 years. Groundwater level, localized zones of perched water and increased soil moisture content fluctuations should be anticipated during and following the rainy season. Irrigation of landscaped areas on or adjacent to the Project site also can cause a fluctuation of local groundwater levels. Based on research and observed conditions, groundwater is not expected to impact Project development (grading and construction) and the resultant impact of Project development and operation would be less than significant.</p> <p>This topic will be addressed in greater detail in the Project EIR.</p>				
	Sources: Project Plans; Quail Valley Project Development Plan; Stantec, “Hydrology Study for Tentative Tract Map No. 65813, City of Palmdale, County of Los Angeles,” (Revised: September 23, 2016 and October 26, 2016); Stantec, “Addendum to Hydrology Study for Tentative Tract Map No. 65813, City of Palmdale, County of Los Angeles,” (September 24, 2018)				
c)	Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?		X		
	<p>Project development will substantially alter the existing drainage pattern of Area A, which could result in soil erosion on- or off-site.</p> <p>The Project Environmental Impact Report will address this impact in greater detail and recommend appropriate Mitigation Measures that will ensure any impacts will be reduced to a less than significant level.</p>				
	Sources: Project Plans; Quail Valley Project Development Plan; Stantec, “Hydrology Study for Tentative Tract Map No. 65813, City of Palmdale, County of Los Angeles,” (Revised: September 23, 2016 and October 26, 2016); Stantec, “Addendum to Hydrology Study for Tentative Tract Map No. 65813, City of Palmdale, County of Los Angeles,” (September 24, 2018)				
d)	Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner in which would result in flooding on- or off-site?		X		
	<p>Project development will include placement of impervious surfaces over Area A and thereby alter the existing drainage pattern of the Project site. However, the rate or amount of runoff will not result in flooding on-site or off-site due to the extensive storm drain improvements that are part of Project development. The result impact level would be less than significant.</p> <p>The Project Environmental Impact Report will address this impact in greater detail and recommend appropriate Mitigation Measures that ensure any impacts will be reduced to a less than significant level.</p>				
	Sources: Project Plans; Quail Valley Project Development Plan; Stantec, “Hydrology Study for Tentative Tract Map No. 65813, City of Palmdale, County of Los Angeles,” (Revised: September 23, 2016 and October 26, 2016); Stantec, “Addendum to Hydrology Study for Tentative Tract Map No. 65813, City of Palmdale, County of Los Angeles,” (September 24, 2018)				

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e)	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?				X	
	<p>Project development would alter drainage patterns, such alterations would not result in substantial adverse effects.</p> <p>Project development would introduce new paved areas to the Project site, as well as new surface water discharges. However, the rate and amount of runoff discharge would not result in flooding on-site or off-site. Any resultant impact would be less than significant.</p> <p>This topic will be addressed in greater detail in the Project EIR.</p>					
	Sources: Project Plans; Quail Valley Project Development Plan; Stantec, “Hydrology Study for Tentative Tract Map No. 65813, City of Palmdale, County of Los Angeles,” (Revised: September 23, 2016 and October 26, 2016); Stantec, “Addendum to Hydrology Study for Tentative Tract Map No. 65813, City of Palmdale, County of Los Angeles,” (September 24, 2018)					
f)	Otherwise substantially degrade water quality?				X	
	<p>During Project development (construction) and operation there will be a potential for water quality impacts to occur due to unanticipated leaks, spills or releases of hazardous or potentially hazardous materials, and due to the potential for encountering existing contamination in the Project area. Compliance with existing City of Palmdale permits will include Best Management Practices and spill response measures to address any unanticipated occurrences that could potentially affect water quality in or near the Project site. Implementation of these policies and compliance with permits and regulations discussed above will ensure potential impacts to water quality that may occur during Project development and operation will be reduced to, and maintained at, a less than significant level.</p>					
	Sources: Project Plans; Quail Valley Project Development Plan; Stantec, “Hydrology Study for Tentative Tract Map No. 65813, City of Palmdale, County of Los Angeles,” (Revised: September 23, 2016 and October 26, 2016); Stantec, “Addendum to Hydrology Study for Tentative Tract Map No. 65813, City of Palmdale, County of Los Angeles,” (September 24, 2018)					
g)	Place housing within a 100-year flood hazard area as mapped on federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?					X
	<p>The Project site has no areas designated as 100-year flood zones or hazard areas. A large portion of the Project site Area A is within FEMA Flood Zone X, which is determined to refer to areas outside the 0.2% annual chance floodplain. The western portion of Area A and all of Area B is in FEMA Flood Zone D, which indicates “areas in which flood hazards are undetermined, but possible.” The portion of Area A that is outside the development footprint (and the entirety of Area B, all of which are not proposed for development) are thereby safe from 100-year flood hazard areas. Therefore, Project development and operation would not place housing within a 100-year flood hazard area and thereby would not impede or redirect flood flows. No impact would result.</p>					
	Sources: Project Plans; Quail Valley Project Development Plan; City of Palmdale General Plan; Los Angeles County General Plan 2035					
h)	Place within a 100-year flood hazard area structures which would impede or redirect flood flows?					X
	<p>Reference IX(g), The Project site has no areas designated as 100-year flood zones or hazard areas. A large portion of the Project site Area A is within FEMA Flood Zone X, which is determined to refer to areas outside the 500-year floodplain and with a 0.2% annual chance floodplain. The western portion of Area A and all of Area B is in FEMA Flood Zone D, which indicates “areas in which flood hazards are undetermined, but possible.” In consideration of the elevations and projected hydrology of these areas, project development would not place structures within a 100-year flood hazard area and thereby would not impede or redirect flood flows. No impact would result.</p>					
	Sources: Project Plans; Quail Valley Project Development Plan; City of Palmdale General Plan; Los Angeles County General Plan 2035					
i)	Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a					X

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	result of the failure of a levee or dam?				
	No dams or reservoirs are located in the near vicinity of the Project site. The closest reservoir is Lake Palmdale which is located approximately 1.05 miles northeast (southeasterly of Avenue S/Highway 14) of the Project site. The level or dam nearest the Project site is the Little Rock-Palmdale Dam, approximately 6 miles to the southeast. Given the distance and the location of the Project site upstream of the Little Rock-Palmdale Dam, the Project site would not be subject to flooding as a result of failure of the Little Rock-Palmdale Dam. In addition, most of the Project site is located outside of the 500-year floodplain as indicated in IX(h) above. Thereby, Project development and operation would not expose people or structures to potential inundation from dam failure. No impact would result.				
	Sources: Project Plans; www.california aqueduct palmdale/lake palmdale; City of Palmdale General Plan				
j)	Inundation by seiche, tsunami, or mudflow?				X
	The Project site is located approximately 50 miles inland from the Pacific Ocean at an approximate elevation of 3,000-4,000 feet above mean sea level. Due to the Project site location, the potential for a tsunami or seiche affecting the Project site is extremely unlikely. No impact would result.				
	Sources: Project Plans; Quail Valley Project Development Plan; City of Palmdale General Plan				
X.	<u>LAND USE AND PLANNING</u>				
	Would the project:				
a)	Physically divide an established community?				X
	<p>The majority of the property surrounding the 878.1-acre Project site to the west and south is undeveloped. Open land to the west of the Project site is bisected with dirt roads and trails. The Anaverde (City Ranch) Specific Plan study area that consists of residential uses is located northwest of the Project site. Rural single-family residences are separated from the Project site to the south by approximately 0.25 mile of open space. Also, a small group of single-family residences occurs along the Project site's northeastern edge at Tovey Road. In addition, rural residential uses are located along the easterly and southeasterly edge of the Anaverde Hills study area. The California Aqueduct extends to the north and east of the Project site. Project development will convert vacant land to residential uses and a recreation facility designed for use by Quail Valley residents and visitors.</p> <p>The City of Palmdale is proposing to annex the 878.1-acre Project site together with other parcels adjacent to Palmdale (to the north, south, east and west of the Quail Valley Project site) consistent with the City Sphere of Influence planning area boundary. The Project site currently is not contiguous with the City corporate boundary although Avenue S, which is directly adjacent to the Project site, is owned by the City. The proposed annexation boundary currently includes 178 assessor parcels (53 parcels within the Quail Valley Project site and 125 additional parcels) that total of approximately 1,285 acres. The proposed annexation area includes existing residential properties northwesterly of the Avenue S/7th Street West intersection and vacant land over the remainder of the annexation territory. Project development will provide 730 residences that will continue the area residential uses and not divide an established community. Therefore, annexation of the additional properties adjacent to the Quail Valley Project site will avoid creation of an "island" of unincorporated County of Los Angeles territory. Therefore, no impact would result.</p>				
	Sources: Project Plans; Quail Valley Project Development Plan; City of Palmdale General Plan; Los Angeles County General Plan 2035				
b)	Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?			X	
	This topic will be addressed in greater detail in the Project EIR, which will include an analysis of Project consistency with City of Palmdale and Los Angeles County General Plan goals and policies, City Municipal Code provisions, and regional planning policies.				
	Sources: Project Plans; Quail Valley Project Development Plan; City of Palmdale General Plan; City of Palmdale Municipal Code; Los Angeles County General Plan; Los Angeles County General Plan 2035				
c)	Conflict with any applicable habitat conservation plan or natural community conservation plan?				X

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		The City of Palmdale and County of Los Angeles have not adopted a habitat conservation plan or natural community conservation plan that include the Project site. The closest "Significant Ecological Area" to the Project site is the Santa Clara River Ecological Area, which is approximately one mile south of the Project site. The San Andreas Significant Ecological Area is approximately three miles north of the Project site. "Significant Ecological Areas" are areas where the County of Los Angeles deems it important to facilitate a balance between development and biological resource conservation. In addition, according to the United States Fish and Wildlife Service Environmental Conservation Online System, the closest Habitat Conservation Plan is the Newhall Farm Seasonal Crossings Habitat Conservation Plan, adopted by the Ventura Fish and Wildlife Office (Ventura County Jurisdiction). Therefore, Project development and operation will not conflict with any such plan. No impact will result.				
		Sources: Project Plans; Quail Valley Project Development Plan; City of Palmdale General Plan; Los Angeles County General Plan 2035				
XI.		<u>MINERAL RESOURCES</u>				
		Would the project:				
	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
		Mineral extraction activities do not occur on the Project site or on adjacent or nearby properties in the vicinity of the Project site. The Project site and surrounding areas are not identified as sources of important mineral resources in the Los Angeles County General Plan. The closest Mineral Resources Zone is approximately 7 miles east of the Project site. As such, the potential for mineral resources to occur on site is low. Furthermore, the Project site is not located within a mineral producing area as classified by the California Geologic Survey. Therefore, Project development and operation will not result in loss of availability of a known mineral resource that would be of value to the region and residents of the State. No impact would result.				
		Sources: Project Plans; Quail Valley Project Development Plan; City of Palmdale General Plan; Los Angeles County General Plan 2035; Los Angeles County Draft General Plan Environmental Impact Report				
	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
		Mineral extraction activities are not present on the Project site and the Project site is not identified as Mineral Resources Zone in the Los Angeles County General Plan Environmental Impact Report Figure 3.5-4, Mineral Resources Map. As such, the potential for mineral resources to occur onsite is low. Furthermore, the Project site is not located within a mineral producing area as classified by the California Geologic Survey. No locally-important mineral resource recovery sites are located on or near the Project site or are identified in the City of Palmdale General Plan, or Anaverde (City Ranch) Specific Plan. Therefore, Project development will not result in loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan. No impact would result.				
		Sources: Project Plans; Quail Valley Project Development Plan; City of Palmdale General Plan; Los Angeles County General Plan 2035; Los Angeles County Draft General Plan Environmental Impact Report				
XII.		<u>NOISE</u>				
		Would the project result in:				
	a)	Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?		X		
		The City of Palmdale has adopted a compatibility matrix for determining compatibility of various land uses with appropriate noise exposure levels, as indicated in the City General Plan Noise Element. The exterior limit is 65 dBA CNEL (the CNEL scale represents a time weighted 24-hour average noise level based on the A-weighted decibel). The interior limit is 45 dBA CNEL on stationary noise sources. The Palmdale Municipal Code regulates construction noise and prohibits noise generated by construction activities between 8:00 p.m. and 6:30 a.m., Monday through Saturday, and at any time on Sunday. The Palmdale Municipal Code does not include specific noise level limits for construction activities. In addition, the County of Los Angeles Noise Ordinance prohibits construction-related noise disturbance across a residential or commercial property line between 7:00 p.m. and 7:00 a.m. on weekdays and establishes noise levels for non-scheduled intermittent short-term				

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	<p>operation (fewer than 10 days) for mobile equipment. Although there is no scientific evidence available to support use of 3 decibels as a significance threshold, in community noise assessment, changes in noise levels greater than 3 decibels often are identified as significant while changes of less than 1 decibel will not be discernible to local residents.</p> <p>Project development (demolition; grading; construction) would result in a substantial short-term increase in ambient noise levels on the Project site and in the vicinity of the Project site above existing ambient noise levels. Project development activities (on-site and off-site) would occur during City-permitted days and hours. The peak noise level for most of the construction equipment to be used during Project development is 80-95 decibels at a distance of 50 feet; 68-83 decibels at 200 feet. The closest sensitive land uses to the Project site are existing residences along Tovey Avenue and Hernandez Drive south of Avenue S on the north side of the Project site. Project development will expose residents living north and east of the Project site to construction noise emanating from grading and building equipment. These residences are approximately 50 feet from the Project construction zone. Therefore, the increased noise levels expected in the area will occur during Project development and are a potentially significant impact without incorporation of mitigation measures. These mitigation measures are examined in the Noise Study prepared for the Project and pertain to the following: limitation of construction activities in areas within 200 feet of the residences on the westerly side of Tovey avenue to specific hours (7:00 a.m. – 7:00 p.m.), Mondays through Saturdays, and prohibiting construction on Sundays and holidays so that maximum noise levels at any affected buildings will not exceed those listed in the County of Los Angeles Noise Ordinance (which is consistent with the Palmdale Municipal Code); limiting construction activities for the balance of the Project to 6:30 a.m. – 8:00 p.m., Monday through Saturday and prohibiting such construction activities during all other time periods as well as on Sundays and legal holidays; and conducting a detailed acoustical study pertaining to roadway noise sources that may impact lots on the north side and nearest to Avenue S.</p> <p>The Project Environmental Impact Report will address this impact in greater detail and recommend appropriate Mitigation Measures that will ensure any impacts will be reduced to a less than significant level.</p>					
	Sources: Project Plans; Quail Valley Project Development Plan; City of Palmdale General Plan; County of Los Angeles General Plan 2035; Landrum & Brown, “Noise Assessment for: Quail Valley Development – City of Palmdale,” (December 12, 2017)					
b)	Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?				X	
	<p>Various components of Project development (grading and construction) can cause various degrees of ground vibration on site, depending on construction procedures and equipment. The effect on buildings in the vicinity of the construction site depends on soil type, ground strata and receptor-building construction. Operation of construction equipment generates vibrations that spread through the ground and diminish with distance from the source. Vibration from construction activities rarely reaches levels that can damage structures, but can achieve audible and perceptible ranges in buildings close to the construction site. Project construction will require use of large bulldozers, loaded trucks, jackhammers, small bulldozers, and other equipment. It is anticipated ground vibration generated by Project construction activities would be at levels below the threshold of human annoyance and below the threshold of architectural damage due to the distance between the Project construction zone and the closest residences. Therefore, Project development impacts related to exposure of persons to, or generation of, excessive vibration or groundborne noise levels would be less than significant.</p> <p>This topic will be addressed in greater detail in the Project EIR.</p>					
	Sources: Project Plans; Quail Valley Project Development Plan; Landrum & Brown, “Noise Assessment for: Quail Valley Development – City of Palmdale,” (December 12, 2017)					
c)	A substantially permanent increase in ambient noise levels in the project vicinity above levels existing without the project?		X			
	<p>Increased traffic resulting from Project development and operation will result in increased traffic noise levels along roadways in the Project vicinity. The greatest increase in traffic noise will occur along Tovey Avenue south of Avenue S; an increase of 8.3 decibels will occur. Existing noise exposure along this roadway segment is 39.6 dBA CNEL at a distance of 100 feet. The noise level will increase to 47 dBA CNEL at a distance of 100 feet. Although the increase is significant, the resultant noise level will be well below the City of Palmdale exterior noise standard of 65 dBA CNEL. Noise level increases on other adjacent and nearby roadways will be less than 3 decibels. Therefore, the resultant impact level of Project development and operation will be less than significant. However, Project operational noise increases would result from increased traffic associated with future residents of the proposed 730 residential units and service vehicles/operations as well as other human activity on the developed Project site such that the increased noise levels that would be experienced by the nearest proposed exterior observer along Avenue S would be 65.1 dBA CNEL. As this noise level would exceed the exterior noise level</p>					

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	standard of 65 dBA CNEL, the level of impact would be potentially significant and Mitigation Measures would be required. The Project Environmental Impact Report will address this impact in greater detail and recommend appropriate Mitigation Measures.					
	Sources: Project Plans; Quail Valley Project Development Plan; City of Palmdale General Plan; Los Angeles County General Plan 2035; Landrum & Brown, "Noise Assessment for: Quail Valley Development – City of Palmdale," (December 12, 2017)					
d)	A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?		X			
	Reference XII(a) above. The resultant level of Project development related noise increase is a potentially significant impact. The Project Environmental Impact Report will address this impact in greater detail and recommend appropriate Mitigation Measures.					
	Sources: Project Plans; Quail Valley Project Development Plan; City of Palmdale General Plan; Los Angeles County General Plan 2035; Landrum & Brown, "Noise Assessment for: Quail Valley Development – City of Palmdale," (December 12, 2017)					
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 expose people residing or working in the project area to excessive noise levels?					X
	As discussed in Section VIII, the Project site is not located within an airport land use plan or within two miles of a public airport or public use airport. The Project site is not located within an airport land use plan or within two miles of a public airport or public use airport. The Palmdale Regional Airport is 6.3 miles northeast of the Project site. Therefore, Project development and operation would not expose people residing or working in the Project area to excessive noise levels from airport use. No impact would result.					
	Sources: Project Plans; Quail Valley Project Development Plan; City of Palmdale General Plan; Los Angeles County General Plan 2035					
f)	For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?					X
	The project site is not located within the vicinity of a private airstrip. The Project site is not located within the vicinity of a private airstrip. The private airstrip nearest the Project site is the Boron Airstrip, which is 45 miles northeast of the Project site. Therefore, Project development would not expose people residing or working in the Project area to excessive noise levels from private airstrip use. No impact would result.					
	Sources: Project Plans; Quail Valley Project Development Plan; City of Palmdale General Plan; Los Angeles County General Plan 2035					
XIII.	<u>POPULATION AND HOUSING</u>					
	Would the project:					
a)	Induce substantial 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	
	Project development of 730 residential dwellings will add approximately 2,592 persons (3.55 per household) to the population of the City of Palmdale. The United States Census Bureau-published 2010 population in the City of Palmdale is 152,750; the Census Bureau estimates the July 1, 2017 City population to be 157,519, which would equate to a 3.1 percent increase between April 1, 2010 and July 1, 2017. Therefore, Project development will increase the City of Palmdale population by 1.7 percent. The Project-generated population added to the City of Palmdale would occur over a period of years (the full timeframe of Project development and occupancy is not known at the present time, but is estimated to occur over at least 4 years, one year of which would be comprised of grading and site preparation). Therefore, approximately Project					

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		development would add approximately 864 persons per year to the City population. This would equate to an annual increase in City population of 0.55 percent. The resultant impact would be less than significant.					
		Sources: Project Plans; Quail Valley Project Development Plan; United States Census (2010 and 2016)					
	b)	Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?					X
		Project development will occur on vacant property. Therefore, Project development would not displace any existing housing. No impact would result.					
		Sources: Project Plans; Quail Valley Project Development Plan; City of Palmdale General Plan; Los Angeles County General Plan 2035					
	c)	Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?					X
		As indicated in XIII(b) above, Project development will occur on vacant property. Therefore, Project development would not displace any people. No impact would result.					
		Sources: Project Plans; Quail Valley Project Development Plan; City of Palmdale General Plan; Los Angeles County General Plan 2035					
XIV.		<u>PUBLIC SERVICES</u>					
		Would the project:					
	a)	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 following public services:					
	i)	Fire protection?			X		
		<p>The Los Angeles County Fire Department provides fire protection and emergency services to the City of Palmdale. The Fire Department provides the following services to unincorporated areas of Los Angeles County: 911 emergency dispatch; emergency medical services; fire prevention/protection; forestry protection; hazardous materials management; and, lifeguard services. The Los Angeles County Fire Department has maintained a Class 1 protection rating by the Insurance Services Office through an extensive fire prevention program. A Class 1 rating recognizes the highest level of fire protection. There are five fire stations in the City of Palmdale that currently operate within a five-mile radius of the Project site. Fire stations in Palmdale receive backup services from Los Angeles Fire Department stations outside the Palmdale area under emergency fire conditions.</p> <p>Project development and operation will generate an increased number of calls for fire protection and emergency service provision calls. Fire protection and emergency service demands in the City of Palmdale and on the Project site will be met by the entire resources of the Los Angeles Fire Department as necessary. The Project would generate revenue in the form of property taxes, which when combined with the Los Angeles County Developer Fee Program would be used to fund additional equipment, facilities and personnel costs associated with fire protection and emergency services. Response times and other performance objectives will not be impacted significantly. In addition, Project design includes a Fuel Modification Plan consisting of three zones (Setback; Irrigation; and, Thinning), various fire safety features, payment of development impact fees as required in the City of Palmdale Municipal Code (Chapter 3.45), and an on-site water supply that will ensure Project-generated physical impacts associated with provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities needed to maintain acceptable service ratios, response times or other performance objectives for fire protection service and emergency service provision would be less than significant.</p> <p>This topic will be addressed in greater detail in the Project EIR and, if necessary, the EIR will contain appropriate Mitigation Measures that will ensure any impacts will be reduced to a less than significant level.</p>					
		Sources: Project Plans; Quail Valley Project Development Plan; City of Palmdale General Plan; Los Angeles County General Plan 2035					
	ii)	Police protection?			X		
		The City of Palmdale contracts with the Los Angeles County Sheriff's Department for general law enforcement services and the California Highway Patrol for traffic enforcement services. The Sheriff's Department is responsible for all crime response					

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		<p>and reserve operations and for traffic and parking problems within the City. Currently, there are two sheriff's stations that serve the Antelope Valley, one of which is located in Palmdale. Approximately 3 officers serve each 1,500 City residents. Therefore, Project development would require 4-5 additional officers. Annual review of the City contract with the Sheriff's Department occurs to ensure law enforcement services will be adequate for City needs. The County of Los Angeles is required by State law to organize a formal mutual aid agreement between all police departments within its jurisdiction. This agreement is established in the Mutual Aid Operations Plan for Los Angeles County. The Antelope Valley California Highway Patrol Station serving Palmdale is located in the City of Lancaster. In addition to enforcing traffic-related activities, the Highway Patrol is involved in accident prevention, school bus safety, motorcycle training, and truck safety.</p> <p>Project operation will increase the demand for police protection services typical to residential land uses, such as burglary, vandalism and assault. Project development would generate revenue from property taxes, a portion of which would be allocated to maintain adequate staffing and equipment levels within the City of Palmdale. In addition, Project operation and concomitantly-generated traffic) will contribute to demand for California Highway Patrol services on area highways. However, increased revenues generated by motor vehicle registration fees would make available funding for additional staffing and equipment for the Antelope Valley Station to meet future demand. Due to the funding mechanisms (i.e. payment of development impact fees as required in the City of Palmdale Municipal Code, Chapter 3.45) in place and contractual arrangements Project-generated physical impacts associated with provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities needed to maintain acceptable service ratios, response times or other performance objectives for police protection service would be less than significant.</p> <p>This topic will be addressed in greater detail in the Project EIR and, if necessary, the EIR will contain appropriate Mitigation Measures that will ensure any impacts will be reduced to a less than significant level.</p>			
		Sources: Project Plans; Quail Valley Project Development Plan; City of Palmdale General Plan; Los Angeles County General Plan 2035			
	iii)	Schools?			X
		<p>The Project site is located within the Palmdale School District and the Antelope Valley High School District. Four elementary schools (Ocotillo Elementary; Yucca Elementary; Palm Tree Elementary; Tumbleweed Elementary) and two intermediate schools (Juniper Intermediate and Anaverde Hills) are located within five miles of the Project site. The Antelope Valley Union High School District provides education for Grades 9 through 12 at five schools and provides adult education, a special needs high school, and a continuation school. Two high schools (Palmdale High School and Highland High School) are located within five miles of the Project site.</p> <p>Project development and operation will increase enrollment in public school districts serving City of Palmdale residents that currently are at or near capacity. Based on a student generation ratio of 0.60 students per dwelling unit, Project development and operation would generate 438 K through Grade 8 students; a generation rate of 0.339 students per dwelling unit would result in 247 additional students within Grades 9 through 12. This would result in a potentially significant impact to the Palmdale School District and to the Antelope Valley Union High School District. However, payment of impact fees authorized under the State Education Code and Government Code (which are subject to annual review) will be required prior to issuance of building permits. Fee payment will reduce the potentially significant impact to school facilities of Project development and operation to a less than significant level.</p> <p>Letters received from both the Palmdale School District and the Antelope Valley Joint Union High School District indicate a school site is not needed within the Project site and both Districts' school facilities would be able to accommodate and serve Project-generated students. Therefore, the level of impact is less than significant.</p>			
		Sources: Project Plans; Quail Valley Project Development Plan; City of Palmdale General Plan; Palmdale School District, Letter Re: Proposed New Communities: TTM 54328 – Falcon Glen (407 sfd homes) and TTM 65813 – Quail Valley (701 sfd homes + up to 29 future homes MFA or SFD) (January 4, 2017); Antelope Valley Joint Union High School District, Letter Re: Proposed New Communities: TTM 54328 – Falcon Glen (407 sfd homes) and TTM 65813 – Quail Valley (701 sfd homes + up to 29 future homes MFA or SFD) (November 16, 2016)			
	iv)	Parks?			X
		<p>The City of Palmdale Parks and Recreation Department provides parks and recreation facilities in the Project vicinity. The Department operates six community parks (5-50+ acres each), four neighborhood parks (3-7 acres) and other public facilities. The City parkland/facilities total more than 278 acres. The City also owns approximately 235 acres of undeveloped parkland to be developed as funding becomes available. In addition, the City maintains several special park facilities that include sports fields, a hockey rink, amphitheater, and natural habitat areas with walking trails. Project design includes the following recreational amenities: a community recreation facility; a community greenbelt; equestrian trails; and, bicycle and pedestrian</p>			

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	pathways.					
	<p>Project development and operation impacts to park facilities are discussed in Section XV (Recreation), but are considered to be less than significant. The combined acreage of the central community recreation facility (3.6 acres), the greenbelt with multi-purpose trail and recreational and exercise elements (23.4 acres), and the permanently undeveloped area (395.1 acres) within the Project exceed City of Palmdale requirements (5 acres of parkland per 1,000 persons) for park and open space. The resultant impact level would be less than significant.</p> <p>This topic will be addressed in greater detail in the Project EIR.</p>					
	Sources: Project Plans; Quail Valley Project Development Plan; City of Palmdale General Plan; Los Angeles County General Plan 2035					
	v) Other public facilities?			X		
	<p>The City of Palmdale operates two libraries. Los Angeles County libraries in close proximity to the City of Palmdale are located in Quartz Hill, Littlerock, and Lancaster. The Palmdale City Library is located at 700 East Palmdale Boulevard; the Palmdale Youth Library is located at 38510 North Sierra Highway. The two libraries have a combined collection of 131,824 volumes within 22,450 square feet. The City standards for library service are the following: 2.5 volumes per capita; 8.5 periodicals per 1,000 residents; 0.5 staff per 1,000 persons; and, 5.0 reader seats per 1,000 residents. Therefore, library services in the City of Palmdale currently are considered inadequate based on City General Plan standards. The City of Palmdale and the Los Angeles County library systems have a reciprocal use agreement that allows borrowing privileges within each system to all residents of the County. Project development and operation will generate a need for the following: 5,730 additional volumes; 19 additional periodicals; 1 additional staff person; and, 11 additional reader seats. Thereby, Project development and operation will contribute to the existing deficiency.</p> <p>The Los Angeles County Library system has adopted a County Library Developer Fee subject to an annual Consumer Price Index adjustment. The amount of the fee to be imposed on a residential development project is based upon findings and conclusions of the Los Angeles County librarian and are not to exceed the estimated reasonable cost of providing library facilities for the Project. Therefore, the Project Applicant will be required to pay developer fees to fund additional library services within the Los Angeles County Library system, which also is used by Palmdale residents. The result level of impact will be less than significant.</p> <p>This topic will be addressed in greater detail in the Project EIR and Mitigation Measures will be provided that will ensure any impacts will be reduced to a less than significant level.</p>					
	Sources: Project Plans; Quail Valley Project Development Plan; City of Palmdale General Plan; Los Angeles County General Plan 2035					
XV.	<u>RECREATION</u>					
	Would the project:					
a)	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	
	<p>Project development and operation will result in an increased use of existing parks in the Project vicinity. However, the Quail Valley Project will contain internal recreational facilities intended for the exclusive use of Project residents and visitors, and add publicly available additional parklike trail facilities. These recreational facilities include a 3.6-acre community recreation facility, a community greenbelt, equestrian trails, and bicycle/pedestrian pathways. In addition, the Project will include a public component of the Los Angeles County regional multi-use trail corridor. Therefore, the impact of Project development and operation on 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 would result in a less than significant level impact.</p>					
	Sources: Project Plans; Quail Valley Project Development Plan; City of Palmdale General Plan; Los Angeles County General Plan 2035					
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					X

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		environment?				
		<p>Project design includes the following recreational amenities: a community recreation facility; a community greenbelt; equestrian trails; and, bicycle and pedestrian pathways. The Homeowners Association will be responsible for maintaining the project community recreational facilities, as to be defined in the Declaration of Covenants, Conditions and Restrictions. The community recreation facility occupies 3.6 acres in the central portion of Area A. The facility will contain the following: a community pool and spa; shade structures; restrooms; Homeowners' Association-governed indoor facilities; pickleball courts; a bocce ball court; open play area; children's activity area; and a 29-space parking lot. The community riparian greenbelt (23.4 acres in area) will traverse the entire Quail Valley community and contain a 12-foot wide decomposed granite multi-purpose trail and adjacent 4-foot wide concrete sidewalk. The greenbelt will be planted with groundcover and have turf areas allotted for play that include a series of exercise stations and fitness courses. Various trails will link to the greenbelt. In addition, the greenbelt encompasses the Los Angeles County Regional Trail system (Exhibit 10.1 in the Los Angeles County General Plan) that traverses the Project site generally in a north-south path. The Multi-Purpose trail within the Project's central greenbelt in conjunction with the trail transition through the central circle and the northerly lower trail area adjacent to the Project's entry roadway will provide an enhanced linkage with the regional trail system. Other improved and unimproved trails are planned to traverse the Project site. The overall length of the new trails in the Project site will be 7.1 miles. Furthermore, individual neighborhoods within the Project will be connected to the central greenbelt via a series of pedestrian walkways and paths. Development of the Project interior recreational facilities and new extensive connections to the Regional Trail System will not have a negative impact on existing regional trails or other recreational facilities that would result in an adverse physical effect on the environment.</p>				
		Sources: Project Plans; Quail Valley Project Development Plan; City of Palmdale General Plan				
XVI.		<u>TRANSPORTATION/TRAFFIC</u>				
		Would the project:				
	a)	Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?			X	
		<p>The Traffic Study conducted for the Project analyzed 7 un-signalized intersections and 11 signalized intersections within the City of Palmdale approved study area. The roadways studied range from 2 lanes in width to major arterial highway widths. The Traffic Study estimated Project operation would generate 6,539 average daily trips and assigned Project distribution to travel as follows: 35% to the north; 25% to the east; 15% to the south; and, 25% to the west. The Traffic Study also conducted analyses of the study area intersections for AM and PM peak hours for the following scenarios: Existing; Existing Plus Project; Build Year 2026; Build Year Plus Project 2026; Build Year 2026 Cumulative; Build Year Plus Project 20-26 Cumulative; Future 2035; Future 2035 Plus Project; Future 2035 Cumulative; and, Future 2035 Plus Project Cumulative. The City of Palmdale's minimum acceptable level of service standard for intersections is LOS "D" during peak hours.</p> <p>The Traffic Study concluded that for the "Existing" condition all intersections within the study area operate at acceptable Levels of Service "C" during non-peak hours. A significant impact is deemed to occur at an intersection when addition of Project traffic causes an intersection to degrade below a Level of Service "D" or addition of Project traffic causes a 2% increase in delay at an intersection already operating below a Level of Service "D." For the "Build Year" and "Build Year Plus Cumulative" conditions, the Traffic Study indicated all intersections within the study area would operate at acceptable Levels of Service in the 2026 Build Year and were anticipated to continue to do so with addition of Project traffic. With addition of Project traffic and cumulative traffic in these scenarios, the Avenue S/Parkwood Drive intersection was anticipated to operate below an acceptable Level of Service in the AM peak hour. The Traffic Study further concluded that for the "Future and Future Plus Cumulative" scenarios (2035), the Tierra Subida Avenue/Elizabeth Lake Road intersection was anticipated to operate below an acceptable Level of Service prior to addition of Project traffic and that all other intersections within the study area operating with acceptable Levels of Service would continue to do so in these scenarios.</p> <p>Intersection improvements necessary by year 2035 to maintain or improve the operational Level of Service of the street system in the Project vicinity include improvements to the Elizabeth Lake Road/Tierra Subida Avenue and the Parkwood Drive/Avenue S intersections.</p> <p>This topic will be addressed in greater detail in the Project EIR and, if necessary, the EIR will contain appropriate Mitigation</p>				

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	Measures that will ensure any impacts will be reduced to a less than significant level.				
	Sources: Project Plans; Quail Valley Project Development Plan; City of Palmdale General Plan; Los Angeles County General Plan 2035; Ruettggers & Schuler, "Traffic Study for Quail Valley Residential Development Located Along Avenue S & West of State Route 14, Palmdale, California," (August, 2017)				
b)	Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?			X	
	<p>The purpose of the Los Angeles County Congestion Management Program is to address the impact of local growth on the regional transportation system by linking local land use decisions with the impacts on regional transportation and air quality, as well as by coordinating County-wide efforts pertaining to transportation solutions that employ all travel modes. According to the Congestion Management Program, a significant impact occurs "when the proposed project increases traffic demand on a CMP [Congestion Management] facility by 2% of capacity ... causing LOS F...." If the facility already is at Level of Service "F," a significant impact would occur when the proposed project increases traffic demand on a CMP facility by 2% of capacity. The Los Angeles County Congestion Management Program identifies California State Route 14 as a CMP facility. Therefore, the Traffic Study for the Project includes the following intersections and freeway segments in its analyses: Avenue S/State Route 14 Southbound Ramp intersection; Avenue S/State Route 14 Northbound intersection; State Route 14 segment south of Avenue S; and, State Route 14 segment from Avenue S to Palmdale Boulevard (California State Route 138).</p> <p>The Traffic Study conducted for the Quail Valley Project concludes as follows for the Roadway Analysis: "All roadways within the study scope currently operate at acceptable levels of service and are anticipated to continue to do so through the future year with the addition of project and cumulative traffic." The Traffic Study also concludes the following for the Congestion Management Intersection and Roadway Analysis: all CMP study area roadways and intersections operate at acceptable levels of service in the "Existing" year scenarios, but by "Build Year" (2026) State Route 14 Northbound and Southbound ramps at Avenue S will operate below an acceptable level of service prior to addition of Project traffic for the PM peak hour and the State Route 14 freeway segment south of Avenue S will operate below an acceptable level of service prior to addition of Project traffic. Therefore, with addition of Project traffic "it is anticipated that the State Route 14 freeway segment between Avenue S and Palmdale Boulevard (SR-138) will operate below an acceptable level of service." However, the Traffic Study also concludes "the addition of project traffic to the above mentioned intersection and freeway segments does not create a significant impact per CMP standards." The conclusion indicates that the Elizabeth Lake Road/Tierra Subida Avenue and Parkwood Drive/Avenue S intersections will require mitigation as stated in the Traffic Study and as included in the Project EIR by 2035 to maintain an acceptable level of service and that the Project Applicant/Developer pay a proportionate percent share for required improvements. In addition, the Traffic Study states "no other intersections or roadways within the scope of the study were determined to have significant impacts due to project generated traffic." The resultant impact will be reduced to a less than significant- level.</p> <p>This topic will be addressed in greater detail in the Project EIR and, if necessary, the EIR will contain appropriate Mitigation Measures that will ensure any impacts will be reduced to a less than significant level.</p>				
	Sources: Project Plans; Quail Valley Project Development Plan; City of Palmdale General Plan; Los Angeles County General Plan 2035; Ruettggers & Schuler, "Traffic Study for Quail Valley Residential Development Located Along Avenue S & West of State Route 14, Palmdale, California," (August, 2017)				
c)	Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?				X
	Project development will not encroach into air traffic space nor result in any effects on demand for local air service or volumes of air traffic. The Palmdale Regional Airport is 6.3 miles northeast of the Project site. The private airstrip nearest the Project site is the Boron Airstrip, which is 45 miles northeast of the Project site. Project development will occur on property outside general air traffic patterns and will not alter air traffic patterns. Therefore, no impact will result.				
	Sources: Project Plans; Quail Valley Project Development Plan; City of Palmdale General Plan; Los Angeles County General Plan 2035				
d)	Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?				X

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		The Quail Valley Project will be a private gated community with gates recessed into the community and hidden from access points at Avenue S and Tovey Avenue. Only two planning areas of the community are located outside the vehicle gates. The main entry road is planned as a modified connector roadway. Primary access to Quail Valley is via Avenue S, approximately 1.2 miles west of California State Route 14. The Avenue S median will be modified to incorporate a left-turn lane, with signalized intersection; the eastbound direction will include a dedicated right-turn lane. The Avenue S/"A" Street intersection will be signalized. Secondary access will be provided via Tovey Avenue with an engineered roundabout designed to slow vehicular traffic leaving the Project. Approximately 20 percent of Project traffic is anticipated to use Tovey Avenue. The increased vehicle use of Tovey Avenue is within design standards as discussed in the Traffic Impact Analysis prepared for the Project. The Project internal roadway system will be comprised of private streets extending as a series of curvilinear connector and local streets and traffic calming roundabouts. Project design will not increase hazards due to any design features. Roadways throughout the Project will meet City of Palmdale design standards. Therefore, no impact will result.				
		Source: Project Plans; Quail Valley Project Development Plan; Ruetters & Schuler, "Traffic Study for Quail Valley Residential Development Located Along Avenue S & West of State Route 14, Palmdale, California," (August, 2017)				
	e)	Result in inadequate emergency access?			X	
		The Quail Valley Project will be a private gated community with gates recessed into the community and hidden from access points at Avenue S and Tovey Avenue. Only two planning areas of the community are located outside the vehicle gates. Interior drive aisles within the Project site will be sufficiently wide to provide adequate emergency access. Project driveways will be designed in accordance with all applicable design and safety standards required by adopted fire codes, safety codes and building codes established by the City of Palmdale and the Los Angeles County Fire Department. Project parking layout is designed to meet City requirements to allow emergency vehicles adequate access to the Project. Therefore, the Project impact is considered to be less than significant.				
		Source: Project Plans; Quail Valley Project Development Plan; City of Palmdale General Plan; Los Angeles County General Plan 2035				
	f)	Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?			X	
		Project development will provide internal bicycle and pedestrian trails and links to adjacent and nearby regional trails. Project development will not conflict with adopted policies or plans supporting alternative transportation modes such as bus transit, bicycles or pedestrian paths. The Project will not cause changes to existing roadway designations in the City of Palmdale General Plan. In addition, Project development will not result in removal of any existing transit or alternative transportation facilities. Any Project-related impact will be less than significant. This topic will be addressed in greater detail in the Project EIR.				
		Sources: Project Plans; Quail Valley Project Development Plan; City of Palmdale General Plan; Los Angeles County General Plan 2035				
XVII.	<u>TRIBAL CULTURAL RESOURCES</u>					
	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:					
	a)	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 50201(k), or			X	
		There is one recorded tribal cultural resource within the Project development area boundary. The resource is a sacred place that consists of a builder complex with 38 cupules and a meandering groove that may be a snake motif. Two other pecked snake motifs are present. The site will be preserved in place. The resource is a sacred place that consists of a boulder complex with 38 cupules (human manufactured depressions in rock associated with prehistoric socio-religious activities) and meandering grooves. Together, these form four rock art panels. The development is designed to avoid this site and its surrounding area entirely. The resource will be preserved in place within a Homeowners Association common area open space lot in a manner consistent with intended preservation of known archaeological sites. Therefore, the site will not be				

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impacted by Project development or operation.

Two other pecked snake motifs are present on the Project site. These snake motifs are within the same preserved site, and are located in an open space area. These cultural resources will not be impacted by Project development or operation. Furthermore, the cultural resources report states "survey of the development impact area of the Quail Valley project resulted in the identification of a single resource site . . . a prehistoric site consisting of a large number of cupules and a meandering groove on a bedrock outcrop. This site is a Tribal Cultural Resource under CEQA. Other prehistoric sites may be revealed when vegetation is removed from the project development area."

In addition, a historic (and active) transmission line exists in the Project's open space.

The City of Palmdale submitted a letter to the Native American Heritage Commission requesting a Sacred Land File Search. The Native American Heritage Commission replied with a list of tribes who might request consultation. The following tribal groups requested consultation: Gabrielino Tongva Indians of California Tribal Council; Fernandeno Tataviam Band of Mission Indians; and, San Manuel Band of Mission Indians.

The Tribal Council requested that a Native American Monitor be present during all ground-disturbing activities and report daily to the Councils about grading activities. This will be memorialized as a Condition of Approval for the Project. In addition, the San Manuel Band of Mission Indians included a request for an updated records search of the Sacred Lands Files and South Central Coastal Information Center, a radius map indicating the location of all sites within one mile of the Project boundary, an exhibit outlining the vertical and horizontal extent of ground disturbance, engineering/design plans for the project, photographs of the project area, and an updated Phase 1 archaeological study that includes use of ground penetrating radar and other methods of subsurface exploration. The City of Palmdale responded on January 26, 2017 by indicating as follows.

"Please note that the applicant is in the process of updating the records searches and preparing the 1 mile radius map, vertical ground disturbance exhibits and engineering/design plans for the project. These items will be provided to you as soon as they have been completed. In addition, the applicant forwarded a hard copy of the updated Cultural Assessment Report, dated February 2017, to your attention, which included the horizontal ground disturbance area and photographs of the project site."

"In regards to the request for an updated Phase 1 survey, the Phase 1 cultural survey prepared for the project indicates that the survey was not effective due to an abundance of vegetation, primarily grasses, covering the site that make typical survey methods, such as ground penetrating radar (GPR) unreliable. As such, the project will be conditioned to provide a full-time archeological monitor for all earth disturbance activities, including grubbing and vegetation removal. In addition to the archeological monitor, Native American monitoring will also be a condition of approval for the project. The applicant is researching the feasibility of a monitoring rotation to allow for monitoring by all interested tribes. The frequency of that monitoring, daily, weekly or monthly, will be established once the construction schedule is known."

"The City and the applicant understand that monitoring of vegetation during earth disturbance activities may reveal cultural sites that will require further work prior to commencement of construction excavations and, as such, all tribal consulting parties will receive notification of any discoveries within 24 hours as part of continuing consultation."

The Cogstone Cultural and Paleontological Report for the Project indicated a strong Serrano/Vanyne affiliation with the Project area and, on that basis, the City of Palmdale indicated the San Manuel Band of Mission Indians "has been selected to provide the Native American Monitors for this project."

Grading will be necessary to prepare the property for accommodating the Project. There may be a possibility Project development could potentially result in discovery of human remains because sub-surface grading would need to be made to accommodate the proposed residential and recreational components of the Project. In the event human remains are encountered during Project development, Mitigation Measures would be required. Pursuant to this Mitigation the proper authorities would be notified if human remains were encountered and standard procedures for respectful handling of human remains in compliance with State Health and Safety Code Section 7050.5 and Public Resources Code Section 5097.98 would be implemented. With implementation of the Mitigation Measures, potential Project-generated impacts to Tribal Cultural Resources would be less than significant.

This topic will be addressed in greater detail in the Project EIR and, if necessary, the EIR will contain appropriate Mitigation Measures that will ensure any impacts will be reduced to a less than significant level.

Sources: Project Plans; Quail Valley Project Development Plan; Cogstone, "Confidential Cultural and

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	Paleontological Assessment Report and Mitigation Plan – Update for the Quail Valley Project, California,” (February, 2017); letter from City of Palmdale to Mr. Robert F. Dorame, Gabrielino Tongva Indians of California Tribal Council (February 16, 2017); letter from City of Palmdale to Ms. Kimia Fatehi, Fernandeno Tataviam Band of Mission Indians (January 25, 2017 and February 16, 2017); letter from City of Palmdale to Ms. Joan Schneider, San Manuel Band of Mission Indians (January 26, 2017)				
b)	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 resource to a California Native American tribe.			X	
	Reference XVII(a) above. This topic will be addressed in greater detail in the Project EIR and, if necessary, the EIR will contain appropriate Mitigation Measures that will ensure any impacts will be reduced to a less than significant level.				
	Sources: Project Plans; Quail Valley Project Development Plan; Cogstone, “Confidential Cultural and Paleontological Assessment Report and Mitigation Plan – Update for the Quail Valley Project, California,” (February, 2017)				
XVII.	<u>UTILITIES AND SERVICE SYSTEMS</u>				
	Would the project:				
a)	Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?			X	
	Project operation is assumed to generate 189,800 gallons of wastewater daily, based on a generation factor of 260 gallons/day for a single-family residence. Due to the planned expansion of Reclamation Plant capacity, sufficient wastewater treatment capacity will be available to serve the Quail Valley Project. Therefore, Project development and operation impact on wastewater treatment requirements of the Regional Water Quality Board will be less than significant. The Los Angeles County Sanitation District Numbers 14 and 20 provide sewer service to the Quail Valley Project site. District Number 14 serves the northwestern portion of the City of Palmdale and its Sphere of Influence, Quartz Hill, Lancaster and private sewage haulers. District Number 20 serves Palmdale’s urban core and the northeastern portion of the City as well as the City’s Sphere of Influence. The Palmdale Water Reclamation Plant provides wastewater treatment for the City of Palmdale. The Sanitation District is planning to expand the Reclamation Plant capacity to accommodate projected increase in wastewater generation flow through year 2025. The Project site will be annexed into Los Angeles County Sanitation District Number 20 concurrently with the City of Palmdale annexation process to ensure adequate wastewater services will be provided to the site. This topic will be addressed in greater detail in the Project EIR and, if necessary, the EIR will contain appropriate Mitigation Measures that will ensure any impacts will be reduced to a less than significant level.				
	Sources: Project Plans; Quail Valley Project Development Plan; Cannon, “Quail Valley Sewer Area Study – Tentative Tract 65813,” (Revised October 18, 2016)				
b)	Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?			X	
	The Sewer Study conducted for the Quail Valley Project uses the most current planning information available and confirms “that the sewers planned in that study [Community Facilities District 93-1 Sewerage System Study] are adequately sized.” Therefore, Project development and operation impact on wastewater treatment requirements of the Regional Water Quality Board will be less than significant. Fifty-four of the proposed 730 residential units will be on a septic system and thereby not generate sewage flow. Therefore, the Sewer Study assumes the total number of Quail Valley residential units that would drain to the sewer system will be 676. Peak sewage flow rate from the Quail Valley Project to be collected at “A” Street and Avenue S is 0.96 cubic feet per second, which is consistent with planning anticipated in previous studies. From this point, the sewer will cross Avenue S and will				

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	<p>connect to the proposed 15-inch collector sewer in Tract 54328 where it will be further conveyed to the existing City of Palmdale Sewer stub-out in Cherry Blossom Street, where it connects to an existing sewer.</p> <p>The Sewer Study concludes “the existing and proposed City of Palmdale sewers are sized to adequately convey the peak sewage flow from the Quail Valley project to the existing Elizabeth Lake Road Extension Trunk Sewer.” The Project site will be required to annex to District #20. Therefore, the Project-generated level of impact pertaining to requiring or resulting in construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant effects is less than significant.</p> <p>This topic will be addressed in greater detail in the Project EIR and, if necessary, the EIR will contain appropriate Mitigation Measures that will ensure any impacts will be reduced to a less than significant level.</p>					
	Sources: Project Plans; Quail Valley Project Development Plan; Cannon, “Quail Valley Sewer Area Study – Tentative Tract 65813,” (Revised October 18, 2016)					
c)	Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?				X	
	<p>Project development includes construction of various scales of storm water drainage facilities throughout the project. Construction of the new storm water drainage facilities would not result in significant environmental effects. A portion of the Project site is located within the Anaverde Creek Watershed. A number of debris basins are planned at the upper elevations of the development area at the natural intersections of the various natural drainage areas. Primary drainage will be conveyed within the street curb area to appropriately located storm drain lines and from there to a large storm drain line in the central greenbelt, terminating in an open detention basin adjacent to Avenue S. Drainage from the basin will be conveyed via the existing box culvert under Avenue S to the north. A secondary drainage facility and discharge location occurs at the northwest corner of the Project site. This interim facility will be converted to graded residential lots after completion of regional downstream off-site drainage facilities. Drainage in the lower northeast area of the Project site (the one acre lots) will be conveyed within the street curb area to appropriately placed storm drain lines prior to discharging into a detention basin, and then conveyed under the aqueduct via an existing storm drain line.</p> <p>In addition, the City of Palmdale requires nuisance water be intercepted and disposed of whenever the depth of the design flow exceeds City standards. Design flow for a single-family residential area is 160 gallons per household per day. The Hydrology Study prepared for the Project indicates a drywell collection system can be used to mitigate nuisance water by collecting nuisance water and any debris carried by the flow. During dry weather conditions, nuisance water captured by the storm drain system will be diverted into the proposed drywells.</p> <p>Therefore, the resultant level of impact would be less than significant.</p>					
	Sources: Project Plans; Quail Valley Project Development Plan; Cannon, “Quail Valley Sewer Area Study – Tentative Tract 65813,” (Revised October 18, 2016); Palmdale Water District website – palmdalewater.org					
d)	Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?			X		
	<p>Water supplies to unincorporated Los Angeles County are provided by a complex network of water districts, water wholesalers and private companies that specialize in developing and improving water service. The Palmdale Water District is one such district and provides water service to the Project site. The Water District is entitled to 21,300 acre feet (5.6 billion gallons annually from the California Aqueduct (State Water Project). The water is treated at the Palmdale Water District's water treatment plant for distribution to the public. A second source of surface water is supplied by the Littlerock Dam Reservoir. The Littlerock Dam was originally constructed in 1922 and recently renovated to increase its storage capacity to 3,500 acre feet (1.1 billion gallons). The Reservoir is fed by local rainfall and by natural runoff from snow packs in local mountains. The water then is transferred from Littlerock Reservoir to Palmdale Lake and subsequently is treated at the Palmdale Water District water treatment plant for distribution. A third source of water for Palmdale Water District customers is through District water wells that pump ground water. Well water comprises approximately 40 percent of the District annual production. In drought conditions (such as currently experienced), well water production may increase up to 50-60 percent to offset the lack of available surface water.</p> <p>The Quail Valley Development Plan (Exhibit 6-1, Public Services) further indicates the northernmost portion of the Project site</p>					

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	<p>(from slightly northerly of the central community recreation facility) currently is located within the Palmdale Water District. The remaining portion of the Project site is neither within the spheres of influence of the Palmdale Water District nor the Los Angeles County Waterworks. However, Palmdale Water District, under separate and independent action, is in process to provide water service to the balance of the Project site through an out-of-district agreement that would provide service continuity within the Quail Valley Project site. A Water Supply Assessment for the Project will be required as Mitigation Measure and will be issued prior to City certification of the Project EIR. Under California State law, as Quail Valley exceeds 500 dwelling units, the Project will be subject to a Water Supply Analysis. The Palmdale Water District has included Project water demands in its current Urban Water Management Plan has included additional water tanks in its master system management plan and, through a Project-specific Water Supply Analysis, has determined the District has sufficient water available to service the Project.</p> <p>Therefore, the resultant impact of Project development and operation on existing water resources is less than significant with implementation of appropriate Mitigation Measures.</p> <p>This topic will be addressed in greater detail in the Project EIR and appropriate Mitigation Measures will be provided that will ensure any impacts will be reduced to a less than significant level.</p>					
	Sources: Project Plans; Quail Valley Project Development Plan; Cannon, “Quail Valley Sewer Area Study – Tentative Tract 65813,” (Revised October 18, 2016); Palmdale Water District website – palmdalewater.org					
e)	Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project’s projected demand in addition to the provider’s existing commitments?				X	
	<p>Reference response XVII(a). The Project site will be annexed into Los Angeles County Sanitation District Number 20 concurrently with the City of Palmdale annexation process to ensure adequate wastewater services will be provided to the site. The increase in wastewater generated by the Quail Valley Project would not result in the Palmdale Water Reclamation Plant inability to meet pollutant standards outlined in its Regional Water Quality Control Board permit. The Plant has sufficient capacity to serve Project needs and is expanding its capacity. Therefore, the resultant level of Project impact is less than significant.</p> <p>This topic will be addressed in greater detail in the Project EIR.</p>					
	Sources: Project Plans; Quail Valley Project Development Plan; Cannon, “Quail Valley Sewer Area Study – Tentative Tract 65813,” (Revised October 18, 2016)					
f)	Be served by a landfill with sufficient permitted capacity to accommodate the project’s solid waste disposal needs?				X	
	<p>Residential solid waste disposal service in the City of Palmdale is provided by contract with Waste Management Inc. The Antelope Valley Landfill through City approval of Conditional Use Permit 98-12 has a disposal area of 125 acres within a property boundary of 185 acres. The overall Antelope Valley Landfill (comprised of Landfill Numbers I and II) was expanded in 2011 through Palmdale Planning Commission approval. That expansion allowed for an added 12.8 million cubic yards of landfill capacity. The overall landfills have a remaining capacity of approximately 10.12 million tons, anticipated as a remaining life span of 27 years. Project operation would generate 1,489 tons of solid waste annually. Project-generated waste would represent a minimal percentage of daily permitted disposal rate at the landfill. Therefore, the level of Project-generated impact pertaining to service by a landfill with sufficient permitted capacity to accommodate the Project’s solid waste disposal needs would be less than significant.</p> <p>This topic will be addressed in greater detail in the Project EIR.</p>					
	Sources: Project Plans; Quail Valley Project Development Plan; City of Palmdale General Plan; Los Angeles County General Plan 2035; Los Angeles County General Plan 2035; City of Palmdale Planning Staff Report for Conditional Use Permit (CUP) 98-12 (June 9, 2011)					
g)	Comply with federal, state, and local statutes and regulations related to solid waste?				X	
	<p>The Quail Valley Project will comply with all California Integrated Waste Management Act requirements pertaining to mandating cities and counties reduce the amount of solid waste entering existing landfills through recycling, reuse and waste prevention practices. In addition, Project development and operation will comply with City of Palmdale General Plan goals, policies and objectives pertaining to solid waste. Therefore, the level of impact Project development and operation pertaining to compliance with federal, State and local statutes and regulations related to solid waste would be less than significant.</p>					

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		This topic will be addressed in greater detail in the Project EIR.				
		Sources: Quail Valley Project Development Plan; Los Angeles County General Plan 2035				
XVIII.		MANDATORY FINDINGS OF SIGNIFICANCE				
	a)	Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?		X		
		Project development may impact two special-status plant species as well as Joshua trees and California junipers. No plant species identified on the Project site are federally or State listed as Threatened or Endangered. The Project site has the potential to support burrowing owls and has vegetation that may support nesting birds. The Project EIR Biological Resources, Cultural Resources and Tribal Cultural Resources sections will contain Mitigation Measures that will reduce any Project development or operation related impacts to a less than significant level. There is one recorded tribal cultural resource on the Project site that will be preserved in place. Any discovery of archaeological, paleontological, human remains or tribal cultural resources that may occur during Project development will be subject to Mitigation Measures delineated in the Cultural Resources and Tribal Cultural Resources Sections of this document. The resultant impact will be reduced to a less than significant level.				
	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		
		The vacant Project site is located within a largely undeveloped area. Project impacts pertaining to the following may be cumulatively considerable: aesthetics; biological resources; cultural resources; geology and soils, hazards and hazardous materials; hydrology and water quality; noise; public services; transportation and traffic; tribal cultural resources; and, utilities and service systems. Technical analyses and studies conducted and to be conducted will address these potential areas of impact and the EIR will discuss these topical areas further. Therefore, Project contribution to potential cumulative environmental impacts may be potentially significant and, if so, will be addressed in the EIR.				
	c)	Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?		X		
		Based on the analysis in this Initial Study, the Project could result directly or indirectly in potentially significant impacts to human beings with regard to the following topics: air quality; geology and soils; hazards and hazardous materials; hydrology and water quality; noise; public services; transportation and traffic; and, utilities and service systems. As a result, these potential effects will be analyzed further in the EIR.				

LIST OF SOURCES:

“Fuel Modification Plan – Quail Valley,” (January, 2018)

Antelope Valley Air Quality Management District, “Federal 8-Hour Ozone Attainment Plan (Western Mohave Desert Non-Attainment Area,” (May 20, 2008)

Antelope Valley Joint Union High School District, Letter dated November 16, 2016

Cannon, “Quail Valley Sewer Area Study – Tentative Tract 65813,” (Revised October 18, 2016)

“City of Palmdale General Plan”

“City of Palmdale Zoning Code”

Cogstone, “Confidential Cultural and Paleontological Assessment Report and Mitigation Plan – Update for the Quail Valley Project, California,” (February,2017)

County of Los Angeles, “Hydrology Manual”

County of Los Angeles, “General Plan 2035,” (October 6, 2015)

Glenn Lukos Associates, “Jurisdictional Delineation Report for the Quail Valley Project, Palmdale, Los Angeles County, California,” (August 28, 2017)

Glenn Lukos Associates, Inc., “Habitat Assessment Report for The Quail Valley Project – Located in the City of Palmdale, Los Angeles County, California,” (August 28, 2017)

Glenn Lukos Associates, Inc., “Biological Technical Report for the 725-Acre Quail Vally Property, City of Palmdale, Los Angeles County, California” (September 22, 2006)

Glenn Lukos Associates, Inc., “Updated Biological Survey Reprt for the 725-Acre Quail Valley Property, City of Palmdale, Los Angeles County, California” (June 11, 2008)

Glenn Lukos Associates, Inc., “Report of Updated Rare Plant Surveys Conducted for the Approximately 880-Quail Valley Project, Palmdale, Los Angeles County, California” (September 19, 2016)

Glenn Lukos Associates, Inc., “Jurisdictional Delineation Report for the Quail Valley Project, Palmdale, Los Angeles County, California,” (August 28, 2017)

Landrum & Brown, “Air Quality Assessment For: Quail Valley Residential Development – City of Palmdale,” (March 16, 2018)

Landrum & Brown, “Greenhouse Gas Assessment For: Quail Valley Residential Development, City of Palmdale,” (March 16, 2018)

Landrum & Brown, “Noise Assessment for: Quail Valley Development – City of Palmdale,” (December 12, 2017)

“Los Angeles County General Plan 2035,” (2017)

Pacific Soils Engineering, Inc., “Preliminary Geotechnical Review, Tentative Tract Map No. 65813, Quail Valley Project, Southwesterly Adjacent to Intersection of West Avenue S and Tovey Avenue, City of Palmdale, California, Volumes I and II (October 2, 2006)

Pacific Soils Engineering, Inc., “Response to Review Comments, Tentative Tract Map No. 65813, Quail Valley Project, Southwesterly Adjacent to Intersection of West Avenue S and Tovey Avenue, City of Palmdale, California,” (November 30, 2007)

Pacific Soils Engineering, Inc., “Response to Review Comments, Tentative Tract Map No. 65813, Quail Valley Project, Southwesterly Adjacent to Intersection of West Avenue S and Tovey Avenue, City of Palmdale, California,” (January 8, 2008)

Pacific Soils Engineering, Inc., “Supplemental Geotechnical Investigation and Response to Review Comments, Tentative Tract Map No. 65813, Quail Valley Project, Southwesterly Adjacent to Intersection of West Avenue S and Tovey Avenue, City of Palmdale, California,” (June 25, 2007)

Palmdale School District, Letter dated January 4, 2017

Petra Geosciences, “Updated Geotechnical Report, Tract 65813, Quail Valley Project, Proposed Residential Development, APN 3054-004-016 and APN 3054-003-101, Southwesterly Adjacent to Intersection of West Avenue S and Tovey Avenue, City of Palmdale, California,” (June 12, 2017)

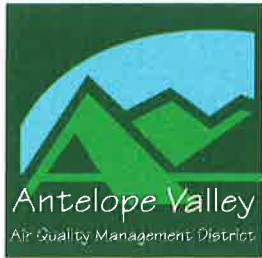
RMC, Geosyntec Consultants, Dr. Richard Ambrose, GreenInfo Network, Solution Strategies International, and Aubrey Dugger, “The Greater Los Angeles County Open Space for Habitat and Recreation Plan – (Integrated Regional Water Management Plan Update-2012),” (June, 2012)

Ruettgers & Schuler, “Traffic Study for Quail Valley Residential Development Located Along Avenue S & West of State Route 14, Palmdale, California,” (June 2017)

Stantec, “Hydrology Study for Tentative Tract Map No. 65813, City of Palmdale, County of Los Angeles,” (Revised: September 23, 2016; October 26, 2016)

Stantec, “Addendum to Hydrology Study for Tentative Tract Map No. 65813, City of Palmdale, County of Los Angeles,” (September 24, 2018)

WWW.Census.gov



Antelope Valley Air Quality Management District
43301 Division St., Suite 206
Lancaster, CA 93535-4649

661.723.8070

In reply, please refer to AV1018/158

October 30, 2018

Megan Taggart
Senior Planner
38250 Sierra Highway
Palmdale, CA 93550

RE: Notice of Preparation of Draft Environmental Impact Report-Quail Lake Planned Development

Ms. Taggart,

The Antelope Valley Air Quality Management District (District) has received the request to comment on the Notice of Preparation of Draft Environmental Impact Report-Quail Lake Planned Development. The proposed project site is located on the south side of Avenue S, approximately 1.2 miles west of California State Route 14, on approximately 878.1 acres and would contain 730 residential lots, an approximately 3.6 acre HOA maintained amenity center, an approximately 23-acre greenbelt and trail system, approximately 185 acres of open space in the rolling valley area and approximately 211 acres of adjacent hillsides to be preserved as natural open space

Prior to initiating any construction activity, the District requires the proposed project comply with all requirements outlined in District Rule 403, Fugitive Dust, including submittal and approval of a Dust Control Plan and installation of required signage. Being that the development will occur in approximately 13 phases, a new dust control plan and signage will be required with each phase.

During construction all disturbed areas should be stabilized so that no visible fugitive dust leaves the property line and does not impact traffic or neighboring residents. All earth moving should be halted when wind speeds exceed 25 miles per hour. The Dust Control Supervisor should be on-site during all earth moving activities to ensure compliance with the approved Dust Control Plan. The Dust Control Supervisor must have authority to implement additional dust mitigation measures if the situation warrants. Upon completion of the project, all disturbed surface areas must meet the definition of a stabilized surface, as defined in Rule 403.

All construction equipment utilized on this project must comply with Air Resources Board In-Use Off-Road Diesel Vehicle Regulation.

Thank you for the opportunity to review this planning document. If you have any questions regarding the information presented in this letter please contact me at (661) 723-8070 ext. 22 or bbanks@avaqmd.ca.gov.

Sincerely,

A handwritten signature in black ink, appearing to read "Bret Banks".

Bret Banks
Executive Director

BB/bjl
Sent via Email

Quail Valley EIR Scoping Meeting Notes and Questions to Answer

November 15, 2018 | 7:00PM | City of Palmdale, Cultural Center

Topics:

- **Aesthetics** (No Comments)
- **Agriculture and Forestry Resources** (No Comments)
- **Cultural Resources** (No Comments)
- **Geology/Soils** (No Comments)
- **Green House Gas Emissions** (No Comments)
- **Hazards/Hazardous Materials** (No Comments)
- **Noise** (No Comments)
- **Tribal Cultural Resources** (No Comments)
- **Air Quality** (#21)
- **Biological Resources** (#13)
- **Hydrology/Water Quality** (#2)
- **Land Use/Planning** (#3, #4, #5, #8, #22)
- **Population/Housing** (#1, #3, #7, #22)
- **Public Services** (#2, #11, #12)
- **Recreation** (#14, #20, #19)
- **Transportation/Traffic** (#4, #9, #10, #15, #16, #17, #18)
- **Utilities/Service Systems** (#2, #6)

1. What are the product types that will be built within the circular street system area? Will there be multi-family/apartments/non-SFR to be built within the project boundary? Concerns that the project is too dense.
2. Will the sewer system have the capacity to serve the proposed residents as well as current residents? Is there a "Will-Serve" Letter for water and sewer? Where will the project connect to sewer on Avenue S, and which way will they flow (east or west)? Is it gravity flow on Avenue S? Will there be septic tanks?
3. Explain the GPA and Zoning Change. What is the allowed Density for the area and what is the project's proposed densities?
4. There is a current Corridor Study being done for Avenue S. Will Quail Valley be approved before the study is completed?
5. Will the neighbors be given the opportunity to vote on the annexation? Several years ago, there was a vote of the residents within the Anaverde area (LA County portion) in which a majority of the residents voted against the annexation.
6. What is the timeframe for this project to start infrastructure improvements and construction?

7. What is the market feasibility/economic feasibility for these single-family housing types? How can this project avoid the market failure of the Ritter Ranch project during the Great Recession?
8. Why is the land north and north west of the project site proposed to be annexed into the City?
9. How many access points are there into and out of the project other than Tovey and the main entrance on Avenue S? What are the Traffic Impacts and how do you plan on mitigating them? How will the residents living in the 51 1-acre parcels enter/exit the project site?
10. Study Traffic Impacts on Avenue S. and the cumulative impacts from the Anaverde area to the north west of the project? Concerns of Tovey Avenue being used as a secondary access point for the project.
11. What is the Evacuation Route if there is a fire near the project site? What are the Access points for Emergency Services such as Fire Trucks?
12. How will the threat of Fire be mitigated for this project? What is the Fire Safety Mitigation for the Trails and Greenbelt within and around the project? There has been fire in the area in the past.
13. What are the Biological Impacts of the project? Study the desert tortoise and the kit fox species.
14. Who will maintain the trails and greenbelt?
15. Study the appropriate traffic speed levels on Avenue S.
16. Morning peak hour traffic on Avenue S and 7th Street is too high to make a safe left turn heading east from 7th Street. Previous traffic study found 23,000 cars per day travel on Avenue S already.
17. On Tovey Ave. and the frontage along Avenue S, there are no completed street improvements such as sidewalks and lighting. Will these off-site improvements be completed as a result of the construction of Quail Valley? Some residents would prefer to keep these facilities unimproved.
18. Study the cumulative traffic impacts of this project on your neighbors to the north.
19. Will there be trails running under the Edison Powerlines? Edison does not allow for trails to run on their easements.

20. Who maintains the multi-purpose/horse trails within Quail Valley? Study the potential conflict of users for the equestrian trails between horses, joggers, pedestrians, and bikers. Study the existing LA County General Plan designation of RL2 and RL10, as well as existing LA Zoning designation of A-1-2 and A-2-2 as they relate to the City pre-annexation designations and the proposed General Plan and Zoning designations. In the 51 1-acre lots, is the front yard horse trails within the right-of-way or is it an easement on private property.
21. Study dust mitigation during construction.
22. Concerns regarding the Jim Previdy project for 164 apartments on Tierra Subida and Avenue S.

Appendix B Notice of Preparation Comments

LA County Sanitation District	2018.01.21
Native American Heritage Commission.....	2018.11.06
Email Taggart regarding SCE response	2018.11.07
Email Taggart regarding SMBMI response	2018.11.08
CA Department of Water Resources.....	2018.11.15
Lahontan Regional Water Quality Control Board	2018.11.16
Southern California Edison	2018.11.20
Southern California Association of Governments	2018.11.22
Email Neighbor-Miller	2018.11.27
LA County Fire	2018.12.04
CA Department of Fish and Wildlife	2018.12.10
Email Neighbor-Gallegos	2018.12.10
LA County Department of Regional Planning	2019.01.11
Desert and Mountain Conservation Authority.....	2019.05.07



COUNTY SANITATION DISTRICTS OF LOS ANGELES COUNTY

1955 Workman Mill Road, Whittier, CA 90601-1400
Mailing Address: P.O. Box 4998, Whittier, CA 90607-4998
Telephone: (562) 699-7411, FAX: (562) 699-5422
www.lacsd.org

GRACE ROBINSON HYDE
Chief Engineer and General Manager

November 21, 2018

Ref. Doc. No.: 4797838

Ms. Megan Taggart
Senior Planner
Planning Division
City of Palmdale
38250 Sierra Highway
Palmdale, CA 93550

Dear Ms. Taggart:

NOP Response to the Quail Valley Planned Development

The Sanitation Districts of Los Angeles County (Districts) received a Notice of Preparation of a Draft Environmental Impact Report for the subject project on October 29, 2018. We offer the following comments:

XVII. UTILITIES AND SERVICE SYSTEMS

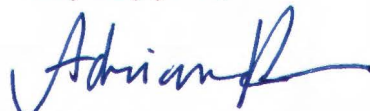
1. Response a), *page 57* – The information in this response states that the project will generate 189,800 gallons per day (gpd); however, the second paragraph of Response b) states, “fifty-four of the proposed 730 residential units will be on a septic system and thereby not generate sewage flow,” essentially bringing the impact to the sewer system down to 676 residential units. Based on the Districts’ average wastewater generation factors, the expected average wastewater flow from the 676 residential units that will connect to the sewer system will be 175,760 gpd.
2. Response a), *page 57* – Although wastewater generated by the City of Palmdale is treated at either the Palmdale Water Reclamation Plant (WRP) or the Lancaster WRP, the wastewater generated specifically by the proposed project will be treated at the Palmdale WRP. The Palmdale WRP has a capacity of 12 million gallons per day (mgd) and currently produces an average recycled water flow of 8 mgd.
3. Response a), *page 57* – As indicated in the information, the project area is outside the jurisdictional boundaries of the Districts and will require annexation into District No. 20 before sewerage service can be provided to the proposed development. For a copy of the Districts’ Annexation Information and Processing Fee sheets, go to www.lacsd.org, Wastewater & Sewer Systems, Will Serve Program, and click on the appropriate link.
4. Response b), *page 57* – Development of the 676 residential units will increase the quantity of wastewater entering the sewer system. The Districts are empowered by the California Health and Safety Code to charge a fee for the privilege of connecting (directly or indirectly) to the Districts’

Sewerage System for increasing the strength or quantity of wastewater discharged from connected facilities. This connection fee is a capital facilities fee that is imposed in an amount sufficient to construct an incremental expansion of the Sewerage System to accommodate the proposed project. Payment of a connection fee will be required before a permit to connect to the sewer is issued. In determining the impact to the Sewerage System and applicable connection fees, the Districts' Chief Engineer and General Manager will determine the user category (e.g. Condominium, Single Family home, etc.) that best represents the actual or anticipated use of the parcel or facilities on the parcel. For more information and a copy of the Connection Fee Information Sheet, go to www.lacsd.org, Wastewater & Sewer Systems, click on Will Serve Program, and search for the appropriate link.

5. Response b) continued, *page 58* – The sewer is proposed to connect to the proposed 15-inch collector sewer in Tract No. 54328 where it will be further conveyed to the existing City of Palmdale Sewer stub-out in Cherry Blossom Street. According to the Districts' records, the wastewater flow from this sewer line is conveyed to the Districts' Elizabeth Lake Road Extension Trunk Sewer, located in Parkwood Drive at the Groves. The Districts' 18-inch diameter trunk sewer has a capacity of 4.3 mgd and conveyed a peak flow of 0.3 mgd when last measured in 2017. Because there are other proposed developments in the area, the availability of trunk sewer capacity should be verified as the project advances. Availability of sewer capacity depends upon project size and timing of connection to the sewerage system. Please submit a copy of the project's build-out schedule to the undersigned to ensure the project is considered when planning future sewerage system relief and replacement projects.
6. All other information concerning Districts' facilities and sewerage service contained in the document is current.

If you have any questions, please contact the undersigned at (562) 908-4288, extension 2717.

Very truly yours,



Adriana Raza
Customer Service Specialist
Facilities Planning Department

AR:ar

cc: D. Curry
A. Schmidt
A. Howard



NATIVE AMERICAN HERITAGE COMMISSION

Cultural and Environmental Department
1550 Harbor Blvd., Suite 100
West Sacramento, CA 95691
Phone (916) 373-3710
Email: nahc@nahc.ca.gov
Website: <http://www.nahc.ca.gov>
Twitter: @CA_NAHC

November 6, 2018

Megan Taggart
City of Palmdale
38250 N. Sierra Highway
Palmdale, CA 93550

RECEIVED

NOV 08 2018

PLANNING DEPT.

RE: SCH# 2018101045 Quail Valley Planned Development Project, Los Angeles County

Dear Ms. Taggart:

The Native American Heritage Commission (NAHC) has received the Notice of Preparation (NOP), Draft Environmental Impact Report (DEIR) or Early Consultation for the project referenced above. The California Environmental Quality Act (CEQA) (Pub. Resources Code §21000 et seq.), specifically Public Resources Code §21084.1, states that a project that may cause a substantial adverse change in the significance of a historical resource, is a project that may have a significant effect on the environment. (Pub. Resources Code § 21084.1; Cal. Code Regs., tit.14, §15064.5 (b) (CEQA Guidelines §15064.5 (b)). If there is substantial evidence, in light of the whole record before a lead agency, that a project may have a significant effect on the environment, an Environmental Impact Report (EIR) shall be prepared. (Pub. Resources Code §21080 (d); Cal. Code Regs., tit. 14, § 5064 subd.(a)(1) (CEQA Guidelines §15064 (a)(1)). In order to determine whether a project will cause a substantial adverse change in the significance of a historical resource, a lead agency will need to determine whether there are historical resources within the area of potential effect (APE).

CEQA was amended significantly in 2014. Assembly Bill 52 (Gatto, Chapter 532, Statutes of 2014) (AB 52) amended CEQA to create a separate category of cultural resources, "tribal cultural resources" (Pub. Resources Code §21074) and provides that a project with an effect that may cause a substantial adverse change in the significance of a tribal cultural resource is a project that may have a significant effect on the environment. (Pub. Resources Code §21084.2). Public agencies shall, when feasible, avoid damaging effects to any tribal cultural resource. (Pub. Resources Code §21084.3 (a)). **AB 52 applies to any project for which a notice of preparation, a notice of negative declaration, or a mitigated negative declaration is filed on or after July 1, 2015.** If your project involves the adoption of or amendment to a general plan or a specific plan, or the designation or proposed designation of open space, on or after March 1, 2005, it may also be subject to Senate Bill 18 (Burton, Chapter 905, Statutes of 2004) (SB 18). **Both SB 18 and AB 52 have tribal consultation requirements.** If your project is also subject to the federal National Environmental Policy Act (42 U.S.C. § 4321 et seq.) (NEPA), the tribal consultation requirements of Section 106 of the National Historic Preservation Act of 1966 (154 U.S.C. 300101, 36 C.F.R. §800 et seq.) may also apply.

The NAHC recommends consultation with California Native American tribes that are traditionally and culturally affiliated with the geographic area of your proposed project as early as possible in order to avoid inadvertent discoveries of Native American human remains and best protect tribal cultural resources. Below is a brief summary of portions of AB 52 and SB 18 as well as the NAHC's recommendations for conducting cultural resources assessments.

Consult your legal counsel about compliance with AB 52 and SB 18 as well as compliance with any other applicable laws.

AB 52

AB 52 has added to CEQA the additional requirements listed below, along with many other requirements:

1. Fourteen Day Period to Provide Notice of Completion of an Application/Decision to Undertake a Project: Within fourteen (14) days of determining that an application for a project is complete or of a decision by a public agency to undertake a project, a lead agency shall provide formal notification to a designated contact of, or tribal representative of, traditionally and culturally affiliated California Native American tribes that have requested notice, to be accomplished by at least one written notice that includes:
 - a. A brief description of the project.
 - b. The lead agency contact information.
 - c. Notification that the California Native American tribe has 30 days to request consultation. (Pub. Resources Code §21080.3.1 (d)).
 - d. A "California Native American tribe" is defined as a Native American tribe located in California that is on the contact list maintained by the NAHC for the purposes of Chapter 905 of Statutes of 2004 (SB 18). (Pub. Resources Code §21073).
2. Begin Consultation Within 30 Days of Receiving a Tribe's Request for Consultation and Before Releasing a Negative Declaration, Mitigated Negative Declaration, or Environmental Impact Report: A lead agency shall begin the consultation process within 30 days of receiving a request for consultation from a California Native American tribe that is traditionally and culturally affiliated with the geographic area of the proposed project. (Pub. Resources Code §21080.3.1, subds. (d) and (e)) and prior to the release of a negative declaration, mitigated negative declaration or Environmental Impact Report. (Pub. Resources Code §21080.3.1(b)).
 - a. For purposes of AB 52, "consultation shall have the same meaning as provided in Gov. Code §65352.4 (SB 18). (Pub. Resources Code §21080.3.1 (b)).
3. Mandatory Topics of Consultation If Requested by a Tribe: The following topics of consultation, if a tribe requests to discuss them, are mandatory topics of consultation:
 - a. Alternatives to the project.
 - b. Recommended mitigation measures.
 - c. Significant effects. (Pub. Resources Code §21080.3.2 (a)).
4. Discretionary Topics of Consultation: The following topics are discretionary topics of consultation:
 - a. Type of environmental review necessary.
 - b. Significance of the tribal cultural resources.
 - c. Significance of the project's impacts on tribal cultural resources.
 - d. If necessary, project alternatives or appropriate measures for preservation or mitigation that the tribe may recommend to the lead agency. (Pub. Resources Code §21080.3.2 (a)).
5. Confidentiality of Information Submitted by a Tribe During the Environmental Review Process: With some exceptions, any information, including but not limited to, the location, description, and use of tribal cultural resources submitted by a California Native American tribe during the environmental review process shall not be included in the environmental document or otherwise disclosed by the lead agency or any other public agency to the public, consistent with Government Code §6254 (r) and §6254.10. Any information submitted by a California Native American tribe during the consultation or environmental review process shall be published in a confidential appendix to the environmental document unless the tribe that provided the information consents, in writing, to the disclosure of some or all of the information to the public. (Pub. Resources Code §21082.3 (c)(1)).
6. Discussion of Impacts to Tribal Cultural Resources in the Environmental Document: If a project may have a significant impact on a tribal cultural resource, the lead agency's environmental document shall discuss both of the following:
 - a. Whether the proposed project has a significant impact on an identified tribal cultural resource.
 - b. Whether feasible alternatives or mitigation measures, including those measures that may be agreed to pursuant to Public Resources Code §21082.3, subdivision (a), avoid or substantially lessen the impact on the identified tribal cultural resource. (Pub. Resources Code §21082.3 (b)).

7. Conclusion of Consultation: Consultation with a tribe shall be considered concluded when either of the following occurs:
 - a. The parties agree to measures to mitigate or avoid a significant effect, if a significant effect exists, on a tribal cultural resource; or
 - b. A party, acting in good faith and after reasonable effort, concludes that mutual agreement cannot be reached. (Pub. Resources Code §21080.3.2 (b)).
8. Recommending Mitigation Measures Agreed Upon in Consultation in the Environmental Document: Any mitigation measures agreed upon in the consultation conducted pursuant to Public Resources Code §21080.3.2 shall be recommended for inclusion in the environmental document and in an adopted mitigation monitoring and reporting program, if determined to avoid or lessen the impact pursuant to Public Resources Code §21082.3, subdivision (b), paragraph 2, and shall be fully enforceable. (Pub. Resources Code §21082.3 (a)).
9. Required Consideration of Feasible Mitigation: If mitigation measures recommended by the staff of the lead agency as a result of the consultation process are not included in the environmental document or if there are no agreed upon mitigation measures at the conclusion of consultation, or if consultation does not occur, and if substantial evidence demonstrates that a project will cause a significant effect to a tribal cultural resource, the lead agency shall consider feasible mitigation pursuant to Public Resources Code §21084.3 (b). (Pub. Resources Code §21082.3 (e)).
10. Examples of Mitigation Measures That, If Feasible, May Be Considered to Avoid or Minimize Significant Adverse Impacts to Tribal Cultural Resources:
 - a. Avoidance and preservation of the resources in place, including, but not limited to:
 - i. Planning and construction to avoid the resources and protect the cultural and natural context.
 - ii. Planning greenspace, parks, or other open space, to incorporate the resources with culturally appropriate protection and management criteria.
 - b. Treating the resource with culturally appropriate dignity, taking into account the tribal cultural values and meaning of the resource, including, but not limited to, the following:
 - i. Protecting the cultural character and integrity of the resource.
 - ii. Protecting the traditional use of the resource.
 - iii. Protecting the confidentiality of the resource.
 - c. Permanent conservation easements or other interests in real property, with culturally appropriate management criteria for the purposes of preserving or utilizing the resources or places.
 - d. Protecting the resource. (Pub. Resource Code §21084.3 (b)).
 - e. Please note that a federally recognized California Native American tribe or a non-federally recognized California Native American tribe that is on the contact list maintained by the NAHC to protect a California prehistoric, archaeological, cultural, spiritual, or ceremonial place may acquire and hold conservation easements if the conservation easement is voluntarily conveyed. (Civ. Code §815.3 (c)).
 - f. Please note that it is the policy of the state that Native American remains and associated grave artifacts shall be repatriated. (Pub. Resources Code §5097.991).
11. Prerequisites for Certifying an Environmental Impact Report or Adopting a Mitigated Negative Declaration or Negative Declaration with a Significant Impact on an Identified Tribal Cultural Resource: An Environmental Impact Report may not be certified, nor may a mitigated negative declaration or a negative declaration be adopted unless one of the following occurs:
 - a. The consultation process between the tribes and the lead agency has occurred as provided in Public Resources Code §21080.3.1 and §21080.3.2 and concluded pursuant to Public Resources Code §21080.3.2.
 - b. The tribe that requested consultation failed to provide comments to the lead agency or otherwise failed to engage in the consultation process.
 - c. The lead agency provided notice of the project to the tribe in compliance with Public Resources Code §21080.3.1 (d) and the tribe failed to request consultation within 30 days. (Pub. Resources Code §21082.3 (d)).

The NAHC's PowerPoint presentation titled, "Tribal Consultation Under AB 52: Requirements and Best Practices" may be found online at: http://nahc.ca.gov/wp-content/uploads/2015/10/AB52TribalConsultation_CalEPAPDF.pdf

SB 18

SB 18 applies to local governments and requires local governments to contact, provide notice to, refer plans to, and consult with tribes prior to the adoption or amendment of a general plan or a specific plan, or the designation of open space. (Gov. Code §65352.3). Local governments should consult the Governor's Office of Planning and Research's "Tribal Consultation Guidelines," which can be found online at: https://www.opr.ca.gov/docs/09_14_05_Updated_Guidelines_922.pdf

Some of SB 18's provisions include:

1. **Tribal Consultation**: If a local government considers a proposal to adopt or amend a general plan or a specific plan, or to designate open space it is required to contact the appropriate tribes identified by the NAHC by requesting a "Tribal Consultation List." If a tribe, once contacted, requests consultation the local government must consult with the tribe on the plan proposal. **A tribe has 90 days from the date of receipt of notification to request consultation unless a shorter timeframe has been agreed to by the tribe.** (Gov. Code §65352.3 (a)(2)).
2. **No Statutory Time Limit on SB 18 Tribal Consultation**. There is no statutory time limit on SB 18 tribal consultation.
3. **Confidentiality**: Consistent with the guidelines developed and adopted by the Office of Planning and Research pursuant to Gov. Code §65040.2, the city or county shall protect the confidentiality of the information concerning the specific identity, location, character, and use of places, features and objects described in Public Resources Code §5097.9 and §5097.993 that are within the city's or county's jurisdiction. (Gov. Code §65352.3 (b)).
4. **Conclusion of SB 18 Tribal Consultation**: Consultation should be concluded at the point in which:
 - a. The parties to the consultation come to a mutual agreement concerning the appropriate measures for preservation or mitigation; or
 - b. Either the local government or the tribe, acting in good faith and after reasonable effort, concludes that mutual agreement cannot be reached concerning the appropriate measures of preservation or mitigation. (Tribal Consultation Guidelines, Governor's Office of Planning and Research (2005) at p. 18).

Agencies should be aware that neither AB 52 nor SB 18 precludes agencies from initiating tribal consultation with tribes that are traditionally and culturally affiliated with their jurisdictions before the timeframes provided in AB 52 and SB 18. For that reason, we urge you to continue to request Native American Tribal Contact Lists and "Sacred Lands File" searches from the NAHC. The request forms can be found online at: <http://nahc.ca.gov/resources/forms/>

NAHC Recommendations for Cultural Resources Assessments

To adequately assess the existence and significance of tribal cultural resources and plan for avoidance, preservation in place, or barring both, mitigation of project-related impacts to tribal cultural resources, the NAHC recommends the following actions:

1. Contact the appropriate regional California Historical Research Information System (CHRIS) Center (http://ohp.parks.ca.gov/?page_id=1068) for an archaeological records search. The records search will determine:
 - a. If part or all of the APE has been previously surveyed for cultural resources.
 - b. If any known cultural resources have already been recorded on or adjacent to the APE.
 - c. If the probability is low, moderate, or high that cultural resources are located in the APE.
 - d. If a survey is required to determine whether previously unrecorded cultural resources are present.
2. If an archaeological inventory survey is required, the final stage is the preparation of a professional report detailing the findings and recommendations of the records search and field survey.
 - a. The final report containing site forms, site significance, and mitigation measures should be submitted immediately to the planning department. 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.
 - b. The final written report should be submitted within 3 months after work has been completed to the appropriate regional CHRIS center.

3. Contact the NAHC for:
 - a. A Sacred Lands File search. Remember that tribes do not always record their sacred sites in the Sacred Lands File, nor are they required to do so. A Sacred Lands File search is not a substitute for consultation with tribes that are traditionally and culturally affiliated with the geographic area of the project's APE.
 - b. A Native American Tribal Consultation List of appropriate tribes for consultation concerning the project site and to assist in planning for avoidance, preservation in place, or, failing both, mitigation measures.
4. Remember that the lack of surface evidence of archaeological resources (including tribal cultural resources) does not preclude their subsurface existence.
 - a. Lead agencies should include in their mitigation and monitoring reporting program plan provisions for the identification and evaluation of inadvertently discovered archaeological resources per Cal. Code Regs., tit. 14, §15064.5(f) (CEQA Guidelines §15064.5(f)). In areas of identified archaeological sensitivity, a certified archaeologist and a culturally affiliated Native American with knowledge of cultural resources should monitor all ground-disturbing activities.
 - b. Lead agencies should include in their mitigation and monitoring reporting program plans provisions for the disposition of recovered cultural items that are not burial associated in consultation with culturally affiliated Native Americans.
 - c. Lead agencies should include in their mitigation and monitoring reporting program plans provisions for the treatment and disposition of inadvertently discovered Native American human remains. Health and Safety Code §7050.5, Public Resources Code §5097.98, and Cal. Code Regs., tit. 14, §15064.5, subdivisions (d) and (e) (CEQA Guidelines §15064.5, subds. (d) and (e)) address the processes to be followed in the event of an inadvertent discovery of any Native American human remains and associated grave goods in a location other than a dedicated cemetery.

If you have any questions or need additional information, please contact me at my email address: Katy.Sanchez@nahc.ca.gov.

Sincerely,



for

Katy Sanchez
Associate Environmental Planner

cc: State Clearinghouse

Steve Jenkins

From: Megan Taggart <mtaggart@cityofpalmdale.org>
Sent: Wednesday, November 07, 2018 11:18 AM
To: 'Steve Jenkins'
Cc: 'CJ Martinez'
Subject: FW: Southern California Edison Easement Impacts for Quail Valley Planned Development Project (TTM 65813)

Steve – Please see below. If you could send the requested documents to my attention, I will forward the information along to SCE.

Thanks,

Megan Taggart
Senior Planner



Department of Economic and Community Development

38250 Sierra Highway
Palmdale, CA 93550
661-267-5213 Direct
661-267-5200 Main
661-267-5233 Fax

www.cityofpalmdale.org

Hours: Monday-Thursday, 7:30 am-6 pm. Closed Friday.

From: Heather Neely [<mailto:Heather.Neely@sce.com>]
Sent: Wednesday, November 07, 2018 10:56 AM
To: Megan Taggart
Cc: Steven Lowry; Third Party Env Review
Subject: Southern California Edison Easement Impacts for Quail Valley Planned Development Project (TTM 65813)

Ms. Taggart:

Southern California has received a Notice of Preparation for the Quail Valley Planned Development Environmental Impact Report in the City of Palmdale. The Quail Valley Planned Development is located on the south side of Ave S about 1.2 miles west of the 14.

According to the Initial Study, the project impacts the following SCE easements:

- AN EASEMENT FOR PUBLIC UTILITIES AND INCIDENTAL PURPOSES, RECORDED AS BOOK 4533, PAGE 385 OF OFFICIAL RECORDS. IN FAVOR OF: SOUTHERN CALIFORNIA EDISON COMPANY. AFFECTS: A PORTION OF THE LAND.
- AN EASEMENT FOR PUBLIC UTILITIES AND INCIDENTAL PURPOSES, RECORDED AS BOOK 4739, PAGE 324 OF OFFICIAL RECORDS. IN FAVOR OF: SOUTHERN CALIFORNIA EDISON COMPANY. AFFECTS: A PORTION OF THE LAND.
- AN EASEMENT FOR ROAD AND INCIDENTAL PURPOSES, RECORDED AS BOOK 4764, PAGE 126 OF OFFICIAL RECORDS. IN FAVOR OF: SOUTHERN CALIFORNIA EDISON COMPANY. AFFECTS: A PORTION OF THE LAND

- EASEMENT FOR POLE LINES AND INCIDENTAL PURPOSES, RECORDED DECEMBER 1, 1947 AS BOOK 25833, PAGE 90 OF OFFICIAL RECORDS. IN FAVOR OF: SOUTHERN CALIFORNIA EDISON COMPANY. AFFECTS: A PORTION OF THE LAND.
- AN EASEMENT FOR POLE LINES AND INCIDENTAL PURPOSES, RECORDED NOVEMBER 1, 1957 AS INSTRUMENT NO. 4203 OF OFFICIAL RECORDS. IN FAVOR OF: SOUTHERN CALIFORNIA EDISON COMPANY AFFECTS: A PORTION OF THE LAND
- AN EASEMENT FOR POLE LINES AND INCIDENTAL PURPOSES, RECORDED DECEMBER 10, 1958 AS BOOK D-301, PAGE 235 OF OFFICIAL RECORDS. IN FAVOR OF: SOUTHERN CALIFORNIA EDISON. AFFECTS: A PORTION OF THE LAND
- AN EASEMENT FOR POLE LINES AND INCIDENTAL PURPOSES, RECORDED DECEMBER 10, 1958 AS BOOK D-301, PAGE 235 OF OFFICIAL RECORDS. IN FAVOR OF: SOUTHERN CALIFORNIA EDISON. AFFECTS: A PORTION OF THE LAND
- AN EASEMENT FOR PUBLIC UTILITIES AND INCIDENTAL PURPOSES, RECORDED AUGUST 15, 1984 AS INSTRUMENT NO. 84-983424 OF OFFICIAL RECORDS. IN FAVOR OF: SOUTHERN CALIFORNIA EDISON COMPANY. AFFECTS: A PORTION OF THE LAND
- AN EASEMENT FOR ELECTRIC TRANSMISSION CORRIDOR AND INCIDENTAL PURPOSES, RECORDED OCTOBER 21, 2010 AS INSTRUMENT NO. 20101505514 OF OFFICIAL RECORDS. IN FAVOR OF: SOUTHERN CALIFORNIA EDISON. AFFECTS: AS DESCRIBED THEREIN.

In order to fully analyze the easement rights on this proposed project, SCE will need:

- 1) A letter of request by the developer
- 2) One full size copy of the tract map including any APNs for the property

Please send to:

Steve Lowry
Rights Analysis
Southern California Edison
2 Innovation Way, 2nd Floor
Pomona CA 91768

He can be reached directly at 909.274.1825
steven.lowry@sce.com

Thank you.

Regards,
Heather Neely
EH&S Advisor
Southern California Edison
Environmental Services
2244 Walnut Grove Avenue
Rosemead CA 91770
626.476.7839

Steve Jenkins

From: Megan Taggart <mtaggart@cityofpalmdale.org>
Sent: Thursday, November 08, 2018 7:44 AM
To: 'CJ Martinez'
Cc: 'Steve Jenkins'
Subject: FW: Quail Valley

FYI

Megan Taggart
Senior Planner



Department of Economic and Community Development

38250 Sierra Highway
Palmdale, CA 93550
661-267-5213 Direct
661-267-5200 Main
661-267-5233 Fax

www.cityofpalmdale.org

Hours: Monday-Thursday, 7:30 am-6 pm. Closed Friday.

From: Jessica Mauck [<mailto:JMauck@sanmanuel-nsn.gov>]
Sent: Wednesday, November 07, 2018 5:55 PM
To: Megan Taggart
Subject: Quail Valley

Hi Megan,

I am e-mailing to confirm the receipt of the IS for the Quail Valley project. This project pre-dates my time with SMBMI, but it looks as though there was an archaeological site/TCR within the footprint that will be avoided, and that SMBMI will have a Tribal monitor on-site. If there is anything you need from SMBMI at this time, please let me know.

Regards,

THIS MESSAGE IS INTENDED ONLY FOR THE USE OF THE INDIVIDUAL OR ENTITY TO WHICH IT IS ADDRESSED AND MAY CONTAIN INFORMATION THAT IS PRIVILEGED, CONFIDENTIAL AND EXEMPT FROM DISCLOSURE UNDER APPLICABLE LAW. If the reader of this message is not the intended recipient or agent responsible for delivering the message to the intended recipient, you are hereby notified that any dissemination or copying of this communication is strictly prohibited. If you have received this electronic transmission in error, please delete it from your system without copying it and notify the sender by reply e-mail so that the email address record can be corrected. Thank You

Jessica Mauck
CULTURAL RESOURCES ANALYST
O: (909) 864-8933 x3249
M: (909) 725-9054

26569 Community Center Drive Highland California 92346



DEPARTMENT OF WATER RESOURCES

1416 NINTH STREET, P.O. BOX 942836
SACRAMENTO, CA 94236-0001
(916) 653-5791



November 15, 2018

Ms. Megan Taggart, Senior Planner
City of Palmdale
383250 N. Sierra Highway
Palmdale, California 93550

RECEIVED

NOV 26 2018

PLANNING DIVISION

Dear Ms. Taggart:

SCH2018101045 Notice of Preparation for Quail Valley Planned Development
Environmental Impact Report, City of Palmdale, Los Angeles County

Thank you for the opportunity to review and comment on the Notice of Preparation (NOP) for the Quail Valley Planned Development Environmental Impact Report (EIR). The NOP describes the project as a 730-unit residential subdivision development comprising 600 net acres within an 878-acre gross area. The proposed project is located south of W. Avenue S and west of the California Aqueduct, part of the Department of Water Resources (DWR) State Water Project (SWP), within the City of Palmdale.

The NOP does not contain enough detail for DWR to comment specifically on the proposed development, however we can comment on foreseeable impacts to DWR right-of-way based on prior experiences with subdivision development upslope of SWP facilities. California Water Code Section 12899.6 prohibits damaging DWR right-of-way, or impeding DWR operations and maintenance activities, by changing the natural drainage patterns of watercourses that enter DWR right-of-way.

The proposed development is upslope of two DWR culverts that direct cross-drainage through the Aqueduct right-of-way at Mileposts 344.8 and 345.5. Stormwater runoff from the development has the potential to impact DWR right-of-way both upslope and downslope of the Aqueduct. DWR will need to review a stormwater management plan and hydrology report for the proposed development in order to make detailed comments on the development. In addition to developed stormwater, the EIR should address the potential for nuisance water flows which may be channeled through DWR right-of-way and cross-drainage facility. Due to increased operations and maintenance costs and difficulty of access to the right-of-way associated with stormwater and nuisance water discharge issues, DWR may require the Applicant to construct a trapezoidal channel from the Applicant's property boundary to the culvert inlet capable of directing discharge and supporting the weight and traffic of DWR maintenance and construction vehicles. Further, a surety bond may be required for a prescribed period to ensure that discharges into DWR right-of-way do not impact the right-of-way downslope of the culvert.

The DWR culvert at MP 344.8 will receive drainage from the majority of the proposed subdivision. Complicating matters within the drainage downstream of the development matters is the road culvert under W. Avenue S. This road culvert directs drainage from the south side of the road into an ephemeral drainage channel to the east of the drainage channel on which DWR constructed the Aqueduct culvert. The DWR culvert was designed with three box sections (two 6-foot by 6-foot box sections and a 7.5-foot by 6-foot box section) with a design maximum flow rate of 3140 cubic feet per second. The stormwater drainage from the project area shall not be directed to the toe of the Aqueduct embankment. The hydrologic analysis for the project shall address this issue and include a recommendation for directing this stormwater into the DWR culvert inlet. No longitudinal channeling of stormwater within DWR right-of-way will be approved as a conveyance to the culvert inlet.

The DWR culvert at MP 345.5 will potentially receive drainage from the northeast portion of the proposed subdivision. Based on Exhibit 3-2 of the NOP, Lot 70 within PA2 is located directly upslope of this DWR culvert. It is not clear from the exhibit if this lot will be dedicated as a stormwater detention basin, but construction of the development without storm water detention facilities upslope of SWP right-of-way is unacceptable to DWR. Discharge from the detention basin shall be routed in a channel entirely within the development property and shall enter DWR right-of-way perpendicular and in-line with the DWR culvert inlet. Discharge velocity from the detention basin shall be reduced by use of energy dissipaters (such as rock rip-rap) within the development prior to discharging into DWR right-of-way.

Any construction or work within DWR right of way will require an Encroachment Permit from DWR. Information and forms for submitting an application for an Encroachment Permit can be found at the following web address:

<https://water.ca.gov/Work-With-Us/Real-Estate/Encroachment-Permits>

Please provide DWR with a copy of any subsequent environmental documentation when it becomes available for public review. Any future correspondence relating to this project should be sent to:

Leroy Ellinghouse, Chief
SWP Right-of-Way Management Section
Division of Operations and Maintenance
Department of Water Resources
1416 Ninth Street, Room 641-1
Sacramento, California 95814

Ms. Megan Taggart, Senior Planner
November 15, 2018
Page 3

In addition, please continue to keep DWR informed of any future actions with respect to your project. If you have any questions, please contact Scott Williams of my staff at (916) 563-5746 or Leroy Ellinghouse at (916) 563-7168.

Sincerely,

A handwritten signature in blue ink, appearing to read "Dale Brown", with a stylized flourish at the end.

Dale Brown, Chief
Project Management Office
Division of Operations and Maintenance

cc: Sheree Edwards, 631-7
Gerry Snow, 604-8

Lahontan Regional Water Quality Control Board

November 16, 2018

File: Environmental Doc Review
Los Angeles County

Megan Taggart, Senior Planner
City of Palmdale, Planning Division
38250 N. Sierra Highway
Palmdale, CA 93550
mtaggart@cityofpalmdale.org

Comments on the Notice of Preparation of Draft Environmental Impact Report for the Quail Valley Planned Development, Los Angeles County, State Clearinghouse Number 2018101045

The California Regional Water Quality Control Board, Lahontan Region (Water Board) staff received the Notice of Preparation (NOP) of a Draft Environmental Impact Report (DEIR) for the above-referenced project (Project) on October 30, 2018. The DEIR, prepared by the City of Palmdale (City), was submitted in compliance with provisions of California Environmental Quality Act (CEQA) in order to solicit input on the potential impacts on the environment and ways in which those significant effects are proposed to be avoided or mitigated.

Water Board staff, acting as a responsible agency, is providing these comments to specify the scope and content of the environmental information germane to our statutory responsibilities pursuant to CEQA Guidelines, California Code of Regulations (CCR), Title 14, section 15096. We thank the City for providing Water Board staff the opportunity to review and comment on the NOP and for taking the initiative to develop a DEIR with considerations to potential effects on water quality. Based on our review of the NOP, we recommend: (1) a Jurisdictional Delineation Report be prepared and submitted to Water Board staff for concurrence; (2) the use of Low Impact Development (LID) to mitigate impacts to water supply and water quality be integrated into the Project; and 3) a discussion be included regarding the use of recycled water to irrigate the community greenbelt areas. Our comments on the proposed Project are outlined below.

WATER BOARD AUTHORITY

All groundwater and surface waters are considered waters of the State. Surface waters include streams, lakes, ponds, and wetlands, and may be ephemeral, intermittent, or perennial. All waters of the State are protected under California law. State law assigns responsibility for protection of water quality in the Lahontan Region to the Lahontan Water Board. Some waters of the State are also waters of the U.S. The Federal Clean

Water Act (CWA) provides additional protection for those waters of the State that are also waters of the U.S.

The *Water Quality Control Plan for the Lahontan Region* (Basin Plan) contains policies that the Water Board uses with other laws and regulations to protect the quality of waters of the State within the Lahontan Region. The Basin Plan sets forth water quality standards for surface water and groundwater of the Region, which include designated beneficial uses as well as narrative and numerical objectives which must be maintained or attained to protect those uses. The Basin Plan can be accessed via the Water Board's web site at

http://www.waterboards.ca.gov/lahontan/water_issues/programs/basin_plan/references.shtml.

COMMENTS ON THE ENVIRONMENTAL REVIEW

1. All surface waters are waters of the State, including ephemeral streams, which appear to be located within or around the Project site. Additionally, with shallow groundwater there maybe springs and seeps within the Project site. We request that a Jurisdictional Delineation Report be prepared for the Project site and submitted to Water Board staff so that we can make our own determination as to whether or not the Project will impact non-federal waters of the State. If construction of the Project results in excavation in, discharge of fill to, or otherwise physical alteration of a surface water, either permanently or temporarily, then the Project proponent would be required to obtain either (1) a Clean Water Act section 401 water quality certification for impacts to federal waters, or (2) a dredge and fill waste discharge requirement for impacts non-federal waters, both of which are issued by the Lahontan Water Board. Early consultation with Water Board staff prior to construction is highly encouraged.
2. This Project is being built in an adjudicated basin and may have a potentially significant impact on groundwater supplies and on groundwater quality. Water Board staff strongly recommends the use of LID to mitigate the loss of groundwater infiltration and the use of native desert vegetation in the community greenbelt and common areas.
3. Water Board staff encourages the City to consider the use of recycled water to irrigate the community greenbelt and common areas within the Project site.
4. The EIR should address the projected breakdown of the quantity of wastewater discharges from residential sections that are proposed for each phase and describe in detail the wastewater treatment systems proposed for each residential section.
5. The Tract Map shows 10 drainage basins for flood routing for the site. These basins should be earthen bottomed to aid in groundwater recharge and be vegetated so as to act as a natural filter to sequester pollutants.

6. Discharge from controlled outlets often results in excess erosion and the production of nuisance sediment downstream as the water being discharged is under pressure. Please include in the EIR a discussion of the drainage basins and how erosion from discharge will be minimized.
7. Healthy watersheds are sustainable. Watersheds supply drinking water provide for recreational uses, and support ecosystems. Surface waters of the Project site are located in the Lancaster Hydrologic Area (626.50) of the Antelope Hydrologic Unit. The surface waters provide a variety of beneficial uses including municipal and domestic supply (MUN); agricultural supply (AGR); commercial and sportfishing (COMM); water contact recreation (REC-1); noncontact recreation (REC-2); warm freshwater habitat (Warm); cold freshwater habitat (COLD); wildlife (WILD); and groundwater recharge (GWR) to the Antelope Valley groundwater basin (6-44). The EIR should identify and list the beneficial uses of all water resources within the Project area and include an analysis of the potential impacts to water quality and hydrology with respect to those beneficial uses.
8. According to the California Geological Survey, portions of the Project are being built in either landslide and/or liquefiable zones. The Water Board recommends that the EIR include all geologic reports, maps, and cross sections used to characterize these hazards. The EIR must include sufficient detail to demonstrate how these hazards will be mitigated.
9. Equipment staging areas, excavated soil stockpiles, and hazardous materials (i.e. oils and fuels) should be sited in upland areas outside surface waters and adjacent flood plain areas. The environmental document should include the development and implementation of a comprehensive Spill Prevention and Response Plan that outlines the site-specific monitoring requirements and lists the BMPs necessary to prevent hazardous material spills or to contain and cleanup a hazardous material spill, should one occur.

PERMITTING REQUIREMENTS

A number of activities associated with the proposed Project have potential to impact waters of the State and, therefore, may require permits issued by the State Water Resources Control Board (State Water Board) or the Lahontan Regional Water Board. The required permits may include the following.

10. Land disturbance of more than 1 acre may require CWA, section 402(p) storm water permits, including a National Pollutant Discharge Elimination System (NPDES) General Construction Storm Water Permit, Water Quality Order (WQO) 2009-0009-DWQ, obtained from the State Water Board, or individual storm water permit obtained from the Lahontan Water Board. Both of these permits require

development and implementation of a Storm Water Pollution Prevention Plan (SWPPP).

11. Streambed alteration and/or discharge of fill material to a surface water may require a CWA, section 401 water quality certification for impacts to federal waters (waters of the U.S.), or dredge and fill waste discharge requirements for impacts to non-federal waters, both issued by the Lahontan Water Board.
12. Water diversion and/or dewatering activities may be subject to discharge and monitoring requirements under either NPDES General Permit, Limited Threat Discharges to Surface Waters, Board Order R6T-2014-0049, or General Waste Discharge Requirements for Discharges to Land with a Low Threat To Water Quality, WQO-2003-0003, both issued by the Lahontan Water Board.

Please be advised of the permits that may be required for the proposed Project, as outlined above. Should Project implementation result in activities that trigger these permitting actions, the Project proponent must consult with Water Board staff. Information regarding these permits, including application forms, can be downloaded from our web site at <http://www.waterboards.ca.gov/lahontan/>.

Thank you for the opportunity to comment on the Project. If you have any questions regarding this letter, please contact me at (760) 241-7305 (tiffany.steinert@waterboards.ca.gov) or Jan Zimmerman, Senior Engineering Geologist, at (760) 241-7404 (jan.zimmerman@waterboards.ca.gov). Please send all future correspondence regarding this Project to the Water Board's email address at Lahontan@waterboards.ca.gov and be sure to include the State Clearinghouse No. and Project name in the subject line.



Tiffany Steinert
Engineering Geologist

cc: State Clearinghouse (state.clearinghouse@opr.ca.gov) (SCH #2018101045)
California Department of Fish & Wildlife (AskRegionR5@wildlife.ca.gov)



SOUTHERN CALIFORNIA
EDISON[®]

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City of Palmdale
38250 Sierra Hwy
Palmdale, CA 93550

November 20, 2018

Attention: Planning Division

Subject: Tentative Tract No. 65813

Our review of the subject subdivision map reveals that the proposed development may interfere with easement rights, and/or facilities held by Southern California Edison within the subdivision boundaries. Until such time as arrangements have been made with the developer to eliminate this interference, the development of the subdivision may unreasonably interfere with the complete and free exercise of Edison's rights.

Two copies of the following maps in hardcopy with scaled plans (1"=50' maximum), including all maps submitted on a disc in .pdf format: including grading, drainage, landscape and street improvement plans are required to be submitted by the developer to determine the extent of the interference. The Edison facilities and the easements should be plotted on the above reference maps. Included with the above referenced plans, the developer must state the proposed method to eliminate any interference. Plans should be forwarded to my attention at the following address:

**Southern California Edison Company
Real Properties, PIV2
2 Innovation Way
Pomona, CA 91768**

Attention: Steven D. Lowry

If you have any questions, or need additional information in connection with the subject subdivision, please contact me at (909) 274-1825.


Steven D. Lowry
Title and Real Estate Services
Real Properties

cc: Stantec Consulting Services Inc.
Bryan Edmunds

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NOV 26 2018

PLANNING DIVISION



SOUTHERN CALIFORNIA
ASSOCIATION OF GOVERNMENTS
900 Wilshire Blvd., Ste. 1700
Los Angeles, CA 90017
T: (213) 236-1800
www.scag.ca.gov

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Transportation
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County**

November 22, 2018

Ms. Megan Taggart, Senior Planner
City of Palmdale, Planning Division
38250 Sierra Highway
Palmdale, California 93550
Phone: (661) 267-5200
E-mail: mtaggart@cityofpalmdale.org

RE: SCAG Comments on the Notice of Preparation of a Draft Environmental Impact Report for the Quail Valley Planned Development [SCAG NO. IGR9767]

Dear Ms. Taggart,

Thank you for submitting the Notice of Preparation of a Draft Environmental Impact Report for the Quail Valley Planned Development ("proposed project") to the Southern California Association of Governments (SCAG) for review and comment. SCAG is the authorized regional agency for Inter-Governmental Review (IGR) of programs proposed for Federal financial assistance and direct Federal development activities, pursuant to Presidential Executive Order 12372. Additionally, SCAG reviews the Environmental Impact Reports of projects of regional significance for consistency with regional plans pursuant to the California Environmental Quality Act (CEQA) and CEQA Guidelines.

SCAG is also the designated Regional Transportation Planning Agency under state law, and is responsible for preparation of the Regional Transportation Plan (RTP) including the Sustainable Communities Strategy (SCS) pursuant to Senate Bill (SB) 375. As the clearinghouse for regionally significant projects per Executive Order 12372, SCAG reviews the consistency of local plans, projects, and programs with regional plans.¹ SCAG's feedback is intended to assist local jurisdictions and project proponents to implement projects that have the potential to contribute to attainment of Regional Transportation Plan/Sustainable Community Strategies (RTP/SCS) goals and align with RTP/SCS policies.

SCAG staff has reviewed the Notice of Preparation of a Draft Environmental Impact Report for the Quail Valley Planned Development in Los Angeles County. The proposed project includes a 730-unit residential development, a 3.6-acre amenity center, and a 23-acre greenbelt and trail system on an 878.1-acre lot.

When available, please send environmental documentation to SCAG's Los Angeles office in Los Angeles (900 Wilshire Boulevard, Ste. 1700, Los Angeles, California 90017) or by email to au@scag.ca.gov providing, at a minimum, the full public comment period for review.

If you have any questions regarding the attached comments, please contact the Inter-Governmental Review (IGR) Program, attn.: Anita Au, Associate Regional Planner, at (213) 236-1874 or au@scag.ca.gov. Thank you.

Sincerely,

Ping Chang
Acting Manager, Compliance and Performance Monitoring

¹ Lead agencies such as local jurisdictions have the sole discretion in determining a local project's consistency with the 2016 RTP/SCS for the purpose of determining consistency for CEQA. Any "consistency" finding by SCAG pursuant to the IGR process should not be construed as a determination of consistency with the 2016 RTP/SCS for CEQA.

**COMMENTS ON THE NOTICE OF PREPARATION OF A
DRAFT ENVIRONMENTAL IMPACT REPORT FOR THE
QUAIL VALLEY PLANNED DEVELOPMENT [SCAG NO. IGR9767]**

CONSISTENCY WITH RTP/SCS

SCAG reviews environmental documents for regionally significant projects for their consistency with the adopted RTP/SCS. For the purpose of determining consistency with CEQA, lead agencies such as local jurisdictions have the sole discretion in determining a local project's consistency with the RTP/SCS.

2016 RTP/SCS GOALS

The SCAG Regional Council adopted the 2016 RTP/SCS in April 2016. The 2016 RTP/SCS seeks to improve mobility, promote sustainability, facilitate economic development and preserve the quality of life for the residents in the region. The long-range visioning plan balances future mobility and housing needs with goals for the environment, the regional economy, social equity and environmental justice, and public health (see <http://scagrtpscs.net/Pages/FINAL2016RTPSCS.aspx>). The goals included in the 2016 RTP/SCS may be pertinent to the proposed project. These goals are meant to provide guidance for considering the proposed project within the context of regional goals and policies. Among the relevant goals of the 2016 RTP/SCS are the following:

SCAG 2016 RTP/SCS GOALS	
RTP/SCS G1:	<i>Align the plan investments and policies with improving regional economic development and competitiveness</i>
RTP/SCS G2:	<i>Maximize mobility and accessibility for all people and goods in the region</i>
RTP/SCS G3:	<i>Ensure travel safety and reliability for all people and goods in the region</i>
RTP/SCS G4:	<i>Preserve and ensure a sustainable regional transportation system</i>
RTP/SCS G5:	<i>Maximize the productivity of our transportation system</i>
RTP/SCS G6:	<i>Protect the environment and health for our residents by improving air quality and encouraging active transportation (e.g., bicycling and walking)</i>
RTP/SCS G7:	<i>Actively encourage and create incentives for energy efficiency, where possible</i>
RTP/SCS G8:	<i>Encourage land use and growth patterns that facilitate transit and active transportation</i>
RTP/SCS G9:	<i>Maximize the security of the regional transportation system through improved system monitoring, rapid recovery planning, and coordination with other security agencies*</i>
*SCAG does not yet have an agreed-upon security performance measure.	

For ease of review, we encourage the use of a side-by-side comparison of SCAG goals with discussions of the consistency, non-consistency or non-applicability of the goals and supportive analysis in a table format. Suggested format is as follows:

SCAG 2016 RTP/SCS GOALS	
Goal	Analysis
RTP/SCS G1: <i>Align the plan investments and policies with improving regional economic development and competitiveness</i>	<i>Consistent: Statement as to why;</i> <i>Not-Consistent: Statement as to why;</i> <i>Or</i> <i>Not Applicable: Statement as to why;</i> <i>DEIR page number reference</i>
RTP/SCS G2: <i>Maximize mobility and accessibility for all people and goods in the region</i>	<i>Consistent: Statement as to why;</i> <i>Not-Consistent: Statement as to why;</i> <i>Or</i> <i>Not Applicable: Statement as to why;</i> <i>DEIR page number reference</i>
etc.	etc.

2016 RTP/SCS STRATEGIES

To achieve the goals of the 2016 RTP/SCS, a wide range of land use and transportation strategies are included in the 2016 RTP/SCS. Technical appendances of the 2016 RTP/SCS provide additional supporting information in detail. To view the 2016 RTP/SCS, please visit: <http://scagrtpscsc.net/Pages/FINAL2016RTPSCS.aspx>. The 2016 RTP/SCS builds upon the progress from the 2012 RTP/SCS and continues to focus on integrated, coordinated, and balanced planning for land use and transportation that the SCAG region strives toward a more sustainable region, while the region meets and exceeds in meeting all of applicable statutory requirements pertinent to the 2016 RTP/SCS. These strategies within the regional context are provided as guidance for lead agencies such as local jurisdictions when the proposed project is under consideration.

DEMOGRAPHICS AND GROWTH FORECASTS

Local input plays an important role in developing a reasonable growth forecast for the 2016 RTP/SCS. SCAG used a bottom-up local review and input process and engaged local jurisdictions in establishing the base geographic and socioeconomic projections including population, household and employment. At the time of this letter, the most recently adopted SCAG jurisdictional-level growth forecasts that were developed in accordance with the bottom-up local review and input process consist of the 2020, 2035, and 2040 population, households and employment forecasts. To view them, please visit <http://www.scag.ca.gov/Documents/2016GrowthForecastByJurisdiction.pdf>. The growth forecasts for the region and applicable jurisdictions are below.

	Adopted SCAG Region Wide Forecasts			Adopted City of Palmdale Forecasts		
	Year 2020	Year 2035	Year 2040	Year 2020	Year 2035	Year 2040
Population	19,663,000	22,091,000	22,138,800	166,500	183,100	201,500
Households	6,458,000	7,325,000	7,412,300	47,600	56,000	59,300
Employment	8,414,000	9,441,000	9,871,500	32,200	38,100	40,300

MITIGATION MEASURES

SCAG staff recommends that you review the Final Program Environmental Impact Report (Final PEIR) for the 2016 RTP/SCS for guidance, as appropriate. SCAG's Regional Council certified the Final PEIR and adopted the associated Findings of Fact and a Statement of Overriding Considerations (FOF/SOC) and Mitigation Monitoring and Reporting Program (MMRP) on April 7, 2016 (please see: <http://scagrtpscsc.net/Pages/FINAL2016PEIR.aspx>). The Final PEIR includes a list of project-level performance standards-based mitigation measures that may be considered for adoption and implementation by lead, responsible, or trustee agencies in the region, as applicable and feasible. Project-level mitigation measures are within responsibility, authority, and/or jurisdiction of project-implementing agency or other public agency serving as lead agency under CEQA in subsequent project- and site- specific design, CEQA review, and decision-making processes, to meet the performance standards for each of the CEQA resource categories.

Steve Jenkins

From: Megan Taggart <mtaggart@cityofpalmdale.org>
Sent: Tuesday, November 27, 2018 12:25 PM
To: 'CJ Martinez'
Cc: Steve Jenkins
Subject: FW: New development in Ana Verde Hills

See below.

Megan Taggart
Senior Planner



Department of Economic and Community Development
38250 Sierra Highway
Palmdale, CA 93550
661-267-5213 Direct
661-267-5200 Main
661-267-5233 Fax

www.cityofpalmdale.org

Hours: Monday-Thursday, 7:30 am-6 pm. Closed Friday.

From: Sandy Miller [<mailto:millrs@sbcglobal.net>]
Sent: Monday, November 26, 2018 1:53 PM
To: Megan Taggart
Subject: New development in Ana Verde Hills

Dear Ms. Taggart,

We were unable to attend the Community Scoping Meeting on November 15th about the proposed development in Quail Valley Planned Development in Ana Verde Hills. Having lived in Ana Verde Hills for over 26 years, we have seen a lot of changes. The corner of Avenue S and Tierra Subida was one lane in each direction with a stop sign when we moved here! There were 2 signals between us and the mall on Tierra Subida/10th Street when we moved here. Now there are 12! Just the added traffic from the Ana Verde Estates development has overloaded the freeway on ramps and off ramps at Avenue S.

Now you want to bring 730 new homes, possibly over 1500 new cars to that area? In addition, your plan is to incorporate that area but leave Ana Verde out of that incorporation. We will not be entitled to improved roads, sewer, improved water lines or any other city amenities but will

have to deal with the added traffic, noise and other problems that go along. Have you ever sat at Avenue S and the freeway and watched the traffic? Going east on S, trying to turn onto the northbound on ramp is already a nightmare! The left turn lane will accommodate 2-3 cars and we have seen it backed up for two signals near the park and ride! Getting off the freeway going north, for going home traffic in the afternoon is now backing up onto the freeway with so many cars. And you want to add more?

Have you every tried to get into a restaurant in Palmdale at the dinner hour, heaven help you if you want to eat on a weekend! Friends and family who visit can't believe that it is impossible to eat at a normal hour... either you eat early or you eat late otherwise you can't get in anywhere! Let's bring more people here!

Do you commute? A 50 mile drive to Van Nuys often takes 2 hours!

We have lived in the Antelope Valley since the 1950's. We have seen a lot of changes, some good, some not to good. We enjoy the mall, we enjoy some of the newer stores Palmdale has brought in, for example Trader Joe's, but just because we have open land doesn't mean we have to fill every square inch with houses!

NO, NO, NO... We enjoy our country living, enjoy our wildlife and enjoy our quiet neighborhood!

Thanks for your consideration.

Dave and Sandy Miller

1060 W Barrel Springs Road



COUNTY OF LOS ANGELES FIRE DEPARTMENT

1320 NORTH EASTERN AVENUE
LOS ANGELES, CALIFORNIA 90063-3294
(323) 881-2401
www.fire.lacounty.gov

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FIRE CHIEF
FORESTER & FIRE WARDEN

December 4, 2018

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DEC 10 2018

PLANNING DEPT.

Megan Taggart, Senior Planner
City of Palmdale
Planning Division
38250 Sierra Highway
Palmdale, CA 93550

Dear Ms. Taggart:

NOTICE OF PREPARATION OF A DRAFT ENVIRONMENTAL IMPACT REPORT, "QUAIL VALLEY PLANNED DEVELOPMENT," THE PROJECT WOULD CONTAIN A MAXIMUM OF 730 RESIDENTIAL LOTS, AN APPROXIMATELY 3.6-ACRE HOA MAINTAINED AMENITY CENTER, AN APPROXIMATELY 23-ACRE GREENBELT AND TRAIL SYSTEM, APPROXIMATELY 185 ACRES OF OPEN SPACE IN THE ROLLING VALLEY AREA AND APPROXIMATELY 211 ACRES OF ADJACENT HILLSIDES TO BE PRESERVED AS NATURAL OPEN SPACE, PALMDALE, FFER 201800119

The Notice of Preparation of a Draft Environmental Impact Report has been reviewed by the Planning Division, Land Development Unit, Forestry Division, and Health Hazardous Materials Division of the County of Los Angeles Fire Department.

The following are their comments:

PLANNING DIVISION:

The Los Angeles County Fire Department (LACoFD) has identified the need for an additional fire station which would serve the area in the vicinity of Tierra Subida and Avenue S. Due to the limited number of locations suitable for the development of a public safety facility in that area, the LACoFD may request with the support of the City of Palmdale, that a fire station site be located within the northern boundary of Area A of the project area if a viable alternative cannot be identified. We are awaiting the City's recommendation on this matter.

SERVING THE UNINCORPORATED AREAS OF LOS ANGELES COUNTY AND THE CITIES OF:

AGOURA HILLS
ARTESIA
AZUSA
BALDWIN PARK
BELL
BELL GARDENS
BELLFLOWER
BRADBURY

CALABASAS
CARSON
CERRITOS
CLAREMONT
COMMERCE
COVINA
CUDAHY
DIAMOND BAR
DUARTE

EL MONTE
GARDENA
GLEN DORA
HAWAIIAN GARDENS
HAWTHORNE
HERMOSA BEACH
HIDDEN HILLS
HUNTINGTON PARK

INDUSTRY
INGLEWOOD
IRVINDALE
LA CANADA-FLINTRIDGE
LA HABRA
LA MIRADA
LA PUENTE
LAKEWOOD
LANCASTER

LAWNDALE
LOMITA
LYNWOOD
MALIBU
MAYWOOD
NORWALK
PALMDALE
PALOS VERDES ESTATES

PARAMOUNT
PICO RIVERA
POMONA
RANCHO PALOS VERDES
ROLLING HILLS
ROLLING HILLS ESTATES
ROSEMEAD
SAN DIMAS
SANTA CLARITA

SIGNAL HILL
SOUTH EL MONTE
SOUTH GATE
TEMPLE CITY
WALNUT
WEST HOLLYWOOD
WESTLAKE VILLAGE
WHITTIER

In addition, in Section XIV of the Draft Environmental Impact Reports, related to Public Services, Subsection a.i) Fire Protection, in paragraph one, sentences three, five, and six should be corrected to state, "The Los Angeles County Fire Department (LACoFD) has maintained a Class 2 protection rating by the Insurance Services Office in the Palmdale area through an extensive fire prevention program. There are three fire stations in the City of Palmdale that currently operate within a five-mile radius of the Project site. Fire Station 37, located at 38313 E. 9th Street East is the jurisdictional (first-due) fire station for the project area. Fire Stations in Palmdale receive backup services from other LACoFD Fire Stations outside the Palmdale area under the LACoFD's regional service delivery for emergency responses."

Sentence four "A Class 1 rating recognizes the highest level of fire protection." should be deleted.

LAND DEVELOPMENT UNIT:

1. The development of this project must comply with all applicable code and ordinance requirements for construction, access, water mains, fire flows, and fire hydrants.
2. The statutory responsibilities of the County of Los Angeles Fire Department's Land Development Unit are the review of, and comment on, all projects within the unincorporated areas of the County of Los Angeles. Our emphasis is on the availability of sufficient water supplies for firefighting operations and local/regional access issues. However, we review all projects for issues that may have a significant impact on the County of Los Angeles Fire Department. We are responsible for the review of all projects within contract cities (cities that contract with the County of Los Angeles Fire Department for fire protection services). We are responsible for all County facilities located within non-contract cities. The County of Los Angeles Fire Department's Land Development Unit may also comment on conditions that may be imposed on a project by the Fire Prevention Division which may create a potentially significant impact to the environment.
3. The maximum allowable grade shall not exceed 15% except where topography makes it impractical to keep within such grade. In such cases, an absolute maximum of 20% will be allowed for up to 150 feet in distance. The average maximum allowed grade including topographical difficulties shall be no more than 17%. Grade breaks shall not exceed 10% in ten feet.
4. When involved with subdivision in a city contracting fire protection with the County of Los Angeles Fire Department, Fire Department requirements for access, fire flows, and hydrants are addressed during the subdivision tentative map stage.
5. Fire sprinkler systems are required in some residential and most commercial occupancies. For those occupancies not requiring fire sprinkler systems it is strongly

suggested that fire sprinkler systems be installed. This will reduce potential fire and life losses. Systems are now technically and economically feasible for residential use.

6. The County of Los Angeles Fire Department Land Development Unit's comments are general requirements. Specific fire and life safety requirements and conditions set during the environmental review process will be addressed and conditions set at the building and fire plan check phase. Once the official plans are submitted for review there may be additional requirements.
7. The development may require fire flows up to 8,000 gallons per minute at 20 pounds per square inch residual pressure for up to a four-hour duration. Actual fire flow requirements shall be determined utilizing the County of Los Angeles Fire Code Appendix B.
8. Fire hydrant spacing shall be 300 feet and shall meet the following requirements:
 - a) No portion of lot frontage shall be more than 200 feet via vehicular access from a public fire hydrant.
 - b) No portion of a building shall exceed 400 feet via vehicular access from a properly spaced public fire hydrant.
 - c) Additional hydrants will be required if hydrant spacing exceeds specified distances.
 - d) When cul-de-sac depth exceeds 200 feet on a commercial street, hydrants shall be required at the corner and mid-block.
 - e) A cul-de-sac shall not be more than 500 feet in-length when serving land zoned for commercial use.
9. Turning radii shall not be less than 32 feet. This measurement shall be determined at the centerline of the road. A Fire Department approved turning area shall be provided for all driveways exceeding 150 feet in-length and at the end of all cul-de-sacs.
10. All on-site driveways/roadways shall provide a minimum unobstructed width of 28 feet clear-to-sky. The on-site driveway is to be within 150 feet of all portions of the exterior walls of the first story of any building. The centerline of the access driveway shall be located parallel to and within 30 feet of an exterior wall on one side of the proposed structure.
11. Streets or driveways within the development shall be provided with the following:
 - a) Provide 36 feet in width on all streets where parking is allowed on both sides.

- b) Provide 34 feet in width on cul-de-sacs up to 700 feet in-length. This allows parking on both sides of the street.
- c) Provide 36 feet in width on cul-de-sacs from 701 to 1,000 feet in-length. This allows parking on both sides of the street.
- d) For streets or driveways with parking restrictions: The entrance to the street/driveway and intermittent spacing distances of 150 feet shall be posted with Fire Department approved signs stating "NO PARKING - FIRE LANE" in three-inch high letters. Driveway labeling is necessary to ensure access for Fire Department use. Turning radii shall not be less than 32 feet. This measurement shall be determined at the centerline of the road.

12. All access devices and gates shall meet the following requirements:

- a) Any single-gated opening used for ingress and egress shall be a minimum of 26 feet in-width clear-to-sky.
- b) Any divided gate opening (when each gate is used for a single direction of travel i.e., ingress or egress) shall be a minimum width of 20 feet clear-to-sky.
- c) Gates and/or control devices shall be positioned a minimum of 50 feet from a public right-of-way and shall be provided with a turnaround having a minimum of 32 feet of turning radius. If an intercom system is used, the 50 feet shall be measured from the right-of-way to the intercom control device.
- d) All limited access devices shall be of a type approved by the Fire Department.
- e) Gate plans shall be submitted to the Fire Department prior to installation. These plans shall show all locations, widths, and details of the proposed gates.

13. All proposals for traffic calming measures (speed humps/bumps/cushions, traffic circles, roundabouts, etc.) shall be submitted to the Fire Department for review prior to implementation.

Should any questions arise regarding subdivision, water systems, or access, please contact the County of Los Angeles Fire Department Land Development Unit's, Inspector Wally Collins, FPEA II at (323) 890-4243 or Wally.Collins@fire.lacounty.gov.

The County of Los Angeles Fire Department's Land Development Unit appreciates the opportunity to comment on this project.

Disruptions to water service shall be coordinated with the County of Los Angeles Fire Department and alternate water sources shall be provided for fire protection during such disruptions.

FORESTRY DIVISION – OTHER ENVIRONMENTAL CONCERNS:

The statutory responsibilities of the County of Los Angeles Fire Department's Forestry Division include erosion control, watershed management, rare and endangered species, vegetation, fuel modification for Very High Fire Hazard Severity Zones, archeological and cultural resources, and the County Oak Tree Ordinance. Potential impacts in these areas should be addressed.

Under the Los Angeles County Oak tree Ordinance, a permit is required to cut, destroy, remove, relocate, inflict damage or encroach into the protected zone of any tree of the Oak genus which is 25 inches or more in circumference (eight inches in diameter), as measured 4 1/2 feet above mean natural grade.

If Oak trees are known to exist in the proposed project area further field studies should be conducted to determine the presence of this species on the project site.

The County of Los Angeles Fire Department's Forestry Division has no further comments regarding this project.

HEALTH HAZARDOUS MATERIALS DIVISION:

The Health Hazardous Materials Division (HHMD) of the Los Angeles County Fire Department advises that two petroleum oil/gas wells potentially occupy the northern portion of the project site within an area proposed for residential development. The California Department of Conservation, Division of Oil, Gas & Geothermal Resources should be contacted regarding the locations and status of these petroleum wells. HHMD has no further comments at this time.

If you have any additional questions, please contact this office at (323) 890-4330.

Very truly yours,



MICHAEL Y. TAKESHITA, ACTING CHIEF, FORESTRY DIVISION
PREVENTION SERVICES BUREAU

MYT:ac

South Coast Region
3883 Ruffin Road
San Diego, CA 82123
(858) 467-4201

www.wildlife.ca.gov



December 10, 2018

Ms. Megan Taggart
City of Palmdale
Planning Department
38250 N. Sierra Highway
Palmdale, CA 93550
Phone: 661-267-5200
mtaggart@cityofpalmdale.org

Notice of Preparation of a Draft Environmental Impact Report for the Quail Valley Planned Development, City of Palmdale, Los Angeles County

Dear Ms. Taggart:

The California Department of Fish and Wildlife (CDFW) has reviewed the above-referenced Notice of Preparation (NOP) of a Draft Environmental Impact Report (DEIR) for the Quail Valley Planned Development (Project). The NOP's supporting documentation includes an *Initial Study and Environmental Evaluation* (IS) provided by the City of Palmdale.

Thank you for the opportunity to provide comments and recommendations regarding those activities involved in the Project that may affect California fish and wildlife. Likewise, we appreciate the opportunity to provide comments regarding those aspects of the Project that CDFW, by law, may be required to carry out or approve through the exercise of its own regulatory authority under the Fish and Game Code.

CDFW's Role

CDFW is California's Trustee Agency for fish and wildlife resources, and holds those resources in trust by statute for all the people of the State [Fish & Game Code, §§ 711.7, subdivision (a) & 1802; Public Resources Code, § 21070; California Environmental Quality Act (CEQA) Guidelines, § 15386, subdivision (a)]. CDFW, in its trustee capacity, has jurisdiction over the conservation, protection, and management of fish, wildlife, native plants, and habitat necessary for biologically sustainable populations of those species (Id., § 1802). Similarly, for purposes of CEQA, CDFW is charged by law to provide, as available, biological expertise during public agency environmental review efforts, focusing specifically on projects and related activities that have the potential to adversely affect state fish and wildlife resources.

CDFW is also submitting comments as a Responsible Agency under CEQA (Public Resources Code, § 21069; CEQA Guidelines, § 15381). CDFW expects that it may need to exercise regulatory authority as provided by the Fish and Game Code, including lake and streambed alteration regulatory authority (Fish & Game Code, § 1600 et seq.). Likewise, to the extent implementation of the Project as proposed may result in “take”, as defined by state law, of any species protected under the California Endangered Species Act (CESA) (Fish & Game Code, § 2050 et seq.), or state-listed rare plant pursuant to the Native Plant Protection Act (NPPA; Fish

& Game Code, §1900 et seq.) authorization as provided by the applicable Fish and Game Code will be required.

Project Description and Summary

Objective: The Project will consist of rezoning and developing 878.1 total acres for a residential housing complex in southwestern Palmdale, CA. The City of Palmdale is proposing to annex the entire 878.1-acre vacant Project site, together with a General Plan Amendment to change the land use designation of approximately 600.4 acres from Low Density Residential (LDR) to a variety of higher density Single Family Residential (SFR) designation. The Project site is comprised of two primary land areas – Area A (primarily Tentative Tract Map 65813) and Area B. Area A occupies 667.5 acres in the northerly Project site adjacent to Avenue S and will contain the 483-acre developed portion of the Project site. Area B comprises 210.6 acres in the higher elevations of the foothills to the ridgeline of the Sierra Pelona Mountains and will be preserved in its entirety as undisturbed. Development of the Project site would include installation of access roads and utilities (water, sewer, electric, and gas). Prior to construction activities, the entire Project area will be graded.

Location: The Project is located in the southwestern portion of the City of Palmdale (City) within the Antelope Valley portion of the Mojave Desert. The main Project area is located on the south side of Avenue S and west of Tovey Avenue.

Comments and Recommendations

CDFW offers the comments and recommendations below to assist the City in adequately identifying, avoiding, and/or mitigating the Project's significant, or potentially significant, direct and indirect impacts on fish and wildlife (biological) resources. Additional comments or other suggestions may also be included to improve the document.

For impacts demonstrated to be unavoidable in the DEIR, CDFW recommends the measures or revisions below that the City should be included in a science-based monitoring program that contains adaptive management strategies as part of the Project's CEQA mitigation, monitoring and reporting program (Public Resources Code, § 21081.6 and CEQA Guidelines, § 15097).

Project Description and Related Impact Shortcoming

Comment #1: Impacts to Burrowing Owl (*Athene cunicularia*)

Issue: A review of California Natural Diversity Database (CNDDB) indicates multiple occurrences of burrowing owl within two miles north of the Project site. As indicated in the supplemental IS, the Project site has the potential to support burrowing owls and therefore pre-disturbance surveys should be conducted prior to initiation of Project development.

Specific impact: The Project may result in direct and indirect burrowing owl mortality or injury, the disruption of natural burrowing owl breeding behavior, and loss of breeding, wintering and foraging habitat for the species. Project impacts would contribute to statewide population declines for burrowing owl. Within the Antelope Valley, the species still persists in low densities and continues to experience significant direct and cumulative habitat loss.

Why impact would occur: Impacts to burrowing owl could result from vegetation clearing and other ground disturbing activities. Project disturbance activities may result in crushing or filling of active owl burrows causing the death or injury of adults, eggs and young. The Project will remove burrowing owl foraging habitat by eliminating native vegetation that supports essential rodent, insect, and reptile that are prey for burrowing owl. Rodent control activities could result in direct and secondary poisoning of burrowing owl ingesting treated rodents.

Evidence impact would be significant: Take of individual burrowing owls and their nests is defined by Fish and Game Code section 86, and prohibited by sections 3503, 3503.5 and 3513. Take is defined in Fish and Game Code section 86 as "hunt, pursue, catch, capture or kill, or attempt to hunt, pursue, catch, capture or kill." Without appropriate take avoidance surveys prior to project operations including, but not limited to, ground and vegetation disturbing activities and rodent control activities, adverse impacts to burrowing owl may occur because species presence/absence has not been verified. In addition, burrowing owl qualifies for enhanced consideration afforded to species under CEQA, which can be shown to meet the criteria for listing as endangered, rare or threatened (CEQA Guidelines, § 15380(d)).

Recommended Potentially Feasible Mitigation Measure(s):

Mitigation Measure #1: To reduce impacts to burrowing owl to less than significant, CDFW recommends that the Project adhere to CDFW's March 7, 2012, *Staff Report on Burrowing Owl Mitigation* (<https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=83843>). All survey efforts should be conducted prior to any project activities that could result in habitat disturbance to soil, vegetation or other sheltering habitat for burrowing owl.

Mitigation Measure #2: Permanent impacts to occupied owl burrows and adjacent foraging habitat should be offset by setting aside replacement habitat to be protected in perpetuity under a conservation easement dedicated to a local land conservancy or other appropriate entity, which should include an appropriate non-wasting endowment to provide for the long-term management of mitigation lands. CDFW recommends that the City require a burrowing owl mitigation plan be submitted to CDFW for review and approval prior to project implementation.

Mitigation Measure #3: For proposed preservation and/or restoration, the final environmental document should include measures to protect the targeted habitat values in perpetuity from direct and indirect negative impacts. The objective should be to offset the project-induced qualitative and quantitative losses of wildlife habitat values. Issues that should be addressed include, but are not limited to, restrictions on access, proposed land dedications, monitoring and management programs, control of illegal dumping, water pollution, and increased human intrusion. An appropriate non-wasting endowment should be provided for the long-term monitoring and management of mitigation lands. CDFW recommends that mitigation occur at a state-approved bank or via an entity that has been approved to hold and manage mitigation lands pursuant to Assembly Bill 1094 (2012), which amended Government Code sections 65965-65968. Under Government Code section 65967(c), the lead agency must exercise due diligence in reviewing the qualifications of a governmental entity, special district, or nonprofit organization to effectively manage and steward land, water, or natural resources on mitigation lands it approves.

Mitigation Measure #4: Project use of rodenticides that could result in direct or secondary poisoning to burrowing owl should be avoided.

Comment #2: Impacts to nesting birds

Issue: According to the IS, significant portions of the Project site are dominated by various woodland and chaparral species, which provide suitable nesting and foraging habitat for nesting birds. Based on a review of CNDDDB, there are historic records of loggerhead shrike (*Lanius ludovicianus*), Le Conte's thrasher (*Toxostoma lecontei*), and the Southern California rufous-crowned sparrow (*Aimophila ruficeps*), all CDFW species of special concern, less than two miles away from the Project site in multiple directions.

Specific impacts: Construction during the breeding season of nesting birds could result in the incidental loss of fertile eggs or nestlings or otherwise lead to nest abandonment. The Project could also lead to the loss of foraging habitat for sensitive bird species.

Why impact would occur: Impacts to nesting birds could result from vegetation clearing and other ground disturbing activities. Project disturbance activities could result in mortality or injury to nestlings, as well temporary or long-term loss of suitable nesting and foraging habitats. Construction during the breeding season of nesting birds could result in the incidental loss of breeding success or otherwise lead to nest abandonment.

Evidence impact would be significant: The loss of occupied habitat or reductions in the number of rare bird species, either directly or indirectly through nest abandonment or reproductive suppression, would constitute a significant impact absent appropriate mitigation. Furthermore, nests of all native bird species are protected under state laws and regulations, including Fish and Game Code sections 3503 and 3503.5.

Recommended Potentially Feasible Mitigation Measure(s):

Mitigation Measure #1: To protect nesting birds that may occur on-site, CDFW recommends that the final environmental document include a measure that no construction shall occur from February 15 through August 31 unless a qualified biologist completes a survey for nesting bird activity within a 500-foot radius of the construction site. The nesting bird surveys should be conducted at appropriate nesting times and concentrate on potential roosting or perch sites. If any nests of birds of prey are observed, these nests should be designated an ecologically sensitive area and protected (while occupied) by a minimum 500-foot radius during Project construction.

Comment #3: Impacts to Swainson's Hawk (*Buteo swainsoni*)

Issue: A review of CNDDDB indicates recorded observations of Swainson's hawk, a state listed threatened species, within about 2.5 miles northeast of the site. Swainson's hawks are regularly observed foraging throughout the Palmdale and Lancaster area.

Specific impacts: The Project will likely result in the loss of foraging habitat for a state listed raptor species.

Why impact would occur: Vegetation removal and ground clearing activities will potentially result in the loss of foraging habitat for listed raptor species.

Evidence impact would be significant: Consistent with CEQA Guidelines, Section 15380, the status of the Swainson's hawk as a threatened species under the California Endangered

Species Act (Fish & G. Code, § 2050 *et seq.*) qualifies it as an endangered, rare, or threatened species under CEQA. The estimated historical population of Swainson's hawk was nearly 17,000 pairs; however, in the late 20th century, Bloom (1980) estimated a population of only 375 pairs. The decline was primarily a result of habitat loss from development (CDFW 2016). The most recent survey conducted in 2009 estimated the population at 941 breeding pairs. The species is currently threatened by loss of nesting and foraging habitat (e.g., from agricultural shifts to less crops that provide less suitable habitat), urban development, environmental contaminants (e.g., pesticides), and climate change (CDFW 2016). Based on the foregoing, Project impacts would potentially substantially reduce the number and/or restrict the range of Swainson's hawk.

Recommended Potentially Feasible Mitigation Measure(s):

Mitigation Measure #1: CDFW recommends conducting focused surveys for Swainson's hawk following the 2010 guidance and disclosing the results in the Project's environmental documentation.

Mitigation Measure #2: If the Project, Project construction, or any Project-related activity during the life of the Project will result in take of a species designated as rare, endangered or threatened, or a candidate for listing under CESA, including Swainson's hawk, CDFW recommends that the Project proponent seek appropriate take authorization under CESA prior to implementing the Project. Appropriate authorization from CDFW may include an incidental take permit (ITP) or a consistency determination in certain circumstances, among other options (Fish & Game Code, §§ 2080.1, 2081, subds. [b],[c]). Early consultation is encouraged, as significant modification to a Project and mitigation measures may be required to obtain CESA authorization. Revisions to the Fish and Game Code, effective January 1998, may require CDFW to issue a separate CEQA document for the issuance of an ITP unless the Project CEQA document addresses all Project impacts to CESA-listed species and specifies a mitigation monitoring and reporting program that will meet the fully mitigated requirements of an ITP. For these reasons, biological mitigation monitoring and reporting proposals should be of sufficient detail and resolution to satisfy the requirements for an ITP.

Comment #4: Impacts to Tricolored Blackbirds (*Agelaius tricolor*)

Issue: A review of CNDDDB indicates recorded observations of tricolored blackbirds (*Agelaius tricolor*), a state-listed threatened species, roughly 1 ½ miles east of the site. Due to the proximity of the Project site to Lake Palmdale and the onsite presence of riparian vegetation, the Project site should assume potential presence of tricolored blackbirds.

Specific impacts: The Project has potential to result in the loss of foraging and nesting habitat for a state-listed threatened bird species.

Why impact would occur: Impacts to tricolored blackbird could result from vegetation clearing and other ground disturbing activities. Project disturbance activities could result in mortality or injury to nestlings, as well temporary or long-term loss of suitable nesting and foraging habitats. Construction during the breeding season of nesting birds could result in the incidental loss of breeding success or otherwise lead to nest abandonment.

Evidence impact would be significant: Consistent with CEQA Guidelines, Section 15380, the status of the tricolored blackbird as a threatened species under the California Endangered

Species Act (Fish & G. Code, § 2050 *et seq.*) qualifies it as an endangered, rare, or threatened species under CEQA. Tricolored blackbird populations, which once numbered in the millions in California, have declined significantly in recent years according to state censuses (CDFW 2018). The long-term decline is primarily related to habitat loss and degradation (including both the nesting vegetation and the larger foraging landscape) from urbanization and conversion to agriculture, particularly in the Central Valley (Beedy et al. 2017). Tricolored Blackbirds require three resources for successful nesting: 1) secure nesting vegetation, 2) a source of water, and 3) foraging habitat (usually much larger in extent than the nesting vegetation) that provides sufficient insect food resources. Loss of any of these habitat components can result in an area becoming unsuitable for breeding. Additional known or suspected threats to the tricolored blackbird include destruction of breeding colonies when nesting vegetation is harvested, high levels of predation by native and nonnative predators, direct and indirect (food resources) effects of pesticides, killing as an agricultural pest through shooting or poisoning, drought, and climate change. The species' colonial breeding nature puts them at increased risk to many of these threats (CDFW 2018).

Recommended Potentially Feasible Mitigation Measure(s):

Mitigation Measure #1: CDFW recommends conducting focused surveys for tricolored blackbirds and incorporating the results into the EIR. Prior to initiation of construction within or adjacent to suitable nesting habitat, a CDFW-approved biologist with experience surveying for and observing tricolored blackbird should conduct preconstruction surveys in accordance with established protocols to determine use of nesting habitat by tricolored blackbird colonies. Surveys should be conducted within and adjacent to suitable habitat, where access allows, during the nesting season (generally March 15 to July 31). If a nesting colony is found, no activity should occur within a 500-foot buffer of the colony until a qualified biologist determines and CDFW confirms that all chicks have fledged and are no longer reliant on the nest site.

Mitigation Measure #2: CDFW recommends the Project implement avoidance measures to tricolored blackbirds in rural areas as recommended in the *Department Staff Guidance Regarding Avoidance of Impacts to Tricolored Blackbird Breeding Colonies on Agricultural Fields*, March 19, 2015 (<https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=99310>).

Mitigation Measure #3: If take of tricolored blackbird would occur from Project construction or operation, a state ITP under CESA would be required for the Project (see Comment #2; Mitigation Measure #2).

Comment #5: Impacts to Special-Status Plant Species

Issue: The Biological Section of the IS indicates that at least two sensitive plant species, Pierson's morning glory (*Calystegia piersonii*) and short-joint beavertail (*Opuntia basilaris*) were found onsite. A review of CNDDDB also shows that short-joint beavertail is found in multiple locations surrounding the Project site. Joshua trees (*Yucca brevifolia*) and California junipers (*Juniperus californica*) were also surveyed on the Project site. The IS further indicates that the most recent survey for special-status plant species was conducted in 2014.

Specific impact: Pierson's morning glory is an S-4 ranked plant species, and short-joint beavertail is an S-3 ranked plant species. CDFW considers plant communities, alliances, and associations with a statewide ranking of S-1, S-2, S-3 and S-4 as sensitive and declining at the local and regional level (Sawyer et al. 2008). An S3 ranking indicates there are 21-80

occurrences of this community in existence in California, S2 has 6-20 occurrences, and S1 has less than 6 occurrences. The Project may have direct or indirect effects to these sensitive species.

Why impact would occur: Project implementation includes grading, vegetation clearing for construction of solar panels, road maintenance, and other activities that may result in direct mortality, population declines, or local extirpation of sensitive plant species.

Evidence impact would be significant: Impacts to special status plant species should be considered significant under CEQA unless they are clearly mitigated below a level of significance. Inadequate avoidance, minimization, and mitigation measures for impacts to these sensitive plant species will result in the Project continuing to have a substantial adverse direct, indirect, and cumulative 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 CDFW or United States Fish and Wildlife Service (USFWS).

Recommended Potentially Feasible Mitigation Measure(s):

Mitigation Measure #1: CDFW recommends conducting focused surveys for sensitive/rare plants on-site and disclosing the results in the EIR. Based on the *Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Natural Communities* (CDFW, 2009) (<https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=18959>), a qualified biologist should "conduct surveys in the field at the time of year when species are both evident and identifiable. Usually this is during flowering or fruiting." The final CEQA documentation should provide a thorough discussion on the presence/absence of sensitive plants on-site and identify measures to protect sensitive plant communities from project-related direct and indirect impacts.

Mitigation Measure #2: In 2007, the State Legislature required CDFW to develop and maintain a vegetation mapping standard for the state (Fish & Game Code, § 1940). This standard complies with the National Vegetation Classification System, which utilizes alliance and association based classification of unique vegetation stands. CDFW utilizes vegetation descriptions found in the Manual of California Vegetation (MCV), found online at <http://vegetation.cnps.org/>. To determine the rarity ranking of vegetation communities on the Project site, the MCV alliance/association community names should be provided as CDFW only tracks rare natural communities using this classification system.

Mitigation Measure #3: CDFW recommends avoiding any sensitive natural communities found on the Project. If avoidance is not feasible, mitigating at a ratio of no less than 5:1 for impacts to S-3 ranked communities and 7:1 for S-2 communities should be implemented. This ratio is for the acreage and the individual plants that comprise each unique community. All revegetation/restoration areas that will serve as mitigation should include preparation of a restoration plan, to be approved by USFWS and CDFW prior to any ground disturbance. The restoration plan should include restoration and monitoring methods; annual success criteria; contingency actions should success criteria not be met; long-term management and maintenance goals; and, a funding mechanism to assure for in perpetuity management and reporting. Areas proposed as mitigation should have a recorded conservation easement and be dedicated to an entity which has been approved to hold/manage lands (AB 1094; Government Code, §§ 65965-65968).

Comment #6: Impacts to Streams

Issue: CDFW is concerned that the Project location supports streams subject to notification under Fish and Game Code section 1600 *et seq.* Based on the location of the Project site (at the bottom of multiple canyons) and a review of satellite imagery, the Project is likely to require a Lake or Streambed Alteration (LSA) Notification for grading and construction activities. The Biological Resources Section of the IS states, "Approximately 2.01 acres of California Department of Fish and Wildlife jurisdiction is associated with the Project site; 1.42 acres of which consist of riparian vegetation." As indicated in the Hydrology Section of the IS, "Project development will significantly alter the existing drainage pattern of Area A...", further highlighting the need for notification under Fish and Game Code section 1600 *et seq.*

Specific impacts: The Project may result in the loss of streams and associated watershed function and biological diversity.

Why impacts would occur: Ground disturbing activities from grading and filling, water diversions, and dewatering would physically remove or otherwise alter streams or their function and associated riparian habitat on the Project site. Biological resources associated downstream of the Project footprint may also be impacted by Project-related releases of sediment and altered watershed effects resulting from Project activities.

Evidence impacts would be significant: Water diversions can impact flow regimes, decreasing the frequency of high flows. Prolonged low flows can cause streams to become graded and cause channels to become disconnected from floodplains (Poff et al. 1997). This process decreases available habitat for aquatic species including fish that utilize floodplains for nursery grounds. Undersized culverts and other stream crossings can also cause downstream channel erosion and tributary head-cutting, reduced magnitude and frequency of high flows, channel narrowing, and reduced formation of secondary channels and oxbows (Poff et al. 1997). Additionally, these structures can degrade water quality and associated wildlife habitats (Santucci, Jr. et al. 2005). Streams with such structures can have reduced abundance of anurans due to decreased availability of breeding habitat (Eskew et al. 2012). Based on the foregoing, Project impacts may substantially adversely affect the existing stream pattern and associated habitat of the Project site.

Recommended Potentially Feasible Mitigation Measure(s):

Mitigation Measure #1: CDFW has concluded that the Project may result in the alteration of streams. For any such activities, the Project applicant (or "entity") must provide written notification to CDFW pursuant to section 1600 *et seq.* of the Fish and Game Code. Based on this notification and other information, CDFW shall determine whether a LSA Agreement is required prior to conducting the proposed activities. A notification package for a LSA may be obtained by accessing CDFW's web site at <https://www.wildlife.ca.gov/conservation/lisa>.

CDFW's issuance of an LSA Agreement for a Project that is subject to CEQA will require CEQA compliance actions by CDFW as a Responsible Agency. As a Responsible Agency, CDFW may consider the CEQA document of the Lead Agency for the Project. To minimize additional requirements by CDFW pursuant to section 1600 *et seq.* and/or under CEQA, the CEQA document should fully identify the potential impacts to the stream or riparian resources and provide adequate avoidance, mitigation, monitoring and reporting commitments for issuance of the LSA Agreement.

Mitigation measure #2: Any LSA Agreement issued for the Project by CDFW may include additional measures protective of streambeds on and downstream of the Project such as additional erosion and pollution control measures. To compensate for any on-site and off-site impacts to riparian resources, additional mitigation conditioned in any LSA Agreement may include the following: avoidance of resources, on-site or off-site creation, enhancement or restoration, and/or protection and management of mitigation lands in perpetuity.

General Comments:

- 1) To enable CDFW to adequately review and comment on the proposed project from the standpoint of the protection of plants, fish, and wildlife, we recommend the following information be included in an EIR:
 - a) A complete discussion of the purpose and need for, and description of, the proposed project, including all staging areas and access routes to the construction and staging areas.
 - b) A range of feasible alternatives to ensure that alternatives to the proposed project are fully considered and evaluated; the alternatives should avoid or otherwise minimize impacts to sensitive biological resources, particularly wetland/riparian habitat which appears to occur within the project site. Specific alternative locations should be evaluated in areas with lower resource sensitivity where appropriate.

Biological Resources within the Project's Area of Potential Effect

- 2) To provide a complete assessment of the flora and fauna within and adjacent to the project area, with particular emphasis upon identifying endangered, threatened, sensitive, and locally unique species and sensitive habitats, the EIR should include the following information:
 - a) Information on the regional setting that is critical to an assessment of environmental impacts, with special emphasis placed on resources that are rare or unique to the region.
 - b) A thorough, recent floristic-based assessment of special status plants and natural communities, following the CDFW's recent updated Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Natural Communities (CDFW, 2018). The protocols are available at the following website: <http://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=18959>). CDFW recommends that floristic, alliance- and/or association-based mapping and vegetation impact assessments be conducted at the project site and neighboring vicinity. The Manual of California Vegetation, second edition, should also be used to inform this mapping and assessment (Sawyer et al. 2008). Adjoining habitat areas should be included in this assessment where site activities could lead to direct or indirect impacts off-site. Habitat mapping at the alliance level will help establish baseline vegetation conditions.
 - c) A current inventory of the biological resources associated with each habitat type on site

and within the area of potential effect. CDFW's California Natural Diversity Data Base in Sacramento should be contacted at www.wildlife.ca.gov/biogeodata/ to obtain current information on any previously reported sensitive species and habitat, including Significant Natural Areas identified under Chapter 12 of the Fish and Game Code.

An inventory of rare, threatened, endangered, and other sensitive species on site and within the area of potential effect. CDFW recommends the final environmental document address species which meet the CEQA definition, including SSC (CEQA Guidelines, §§ 15380, 15063, and 15065). This should include sensitive fish, wildlife, reptile, and amphibian species. Seasonal variations in use of the project area should also be addressed. Focused species-specific surveys, conducted at the appropriate time of year and time of day when the sensitive species are active or otherwise identifiable are strongly recommended. Acceptable species-specific survey procedures should be developed in consultation with CDFW and the U.S. Fish and Wildlife Service. In assigning "impact significance" to populations of non-listed species, such as SSC, factors to consider include population-level effects, proportion of the taxon's range affected by a project, regional effects, and impacts to habitat features.

Analyses of the Potential Project-Related Impacts on the Biological Resources

- 3) To provide a thorough discussion of direct, indirect, and cumulative impacts expected to adversely affect biological resources, with specific measures to offset such impacts, the following should be addressed in the EIR:
 - a) Potential adverse impacts from lighting, noise, human activity, exotic species, and drainage should also be included. The latter subject should address: project-related changes on drainage patterns on and downstream of the project site; the volume, velocity, and frequency of existing and post-project surface flows; polluted runoff; soil erosion and/or sedimentation in streams and water bodies; and, post-project fate of runoff from the project site. The EIR analysis should also address the proximity of the extraction activities to the water table, whether dewatering would be necessary, and related potential impacts to habitat supported by groundwater. Mitigation measures proposed to alleviate such impacts should be included in the EIR.
 - b) Indirect project impacts on biological resources, including resources in nearby public lands, open space, adjacent natural habitats, riparian ecosystems, and any designated and/or proposed or existing reserve lands (e.g., preserve lands associated with a Natural Community Conservation Program [NCCP; Fish & Game Code, § 2800 *et seq.*]). Impacts on, and maintenance of, wildlife corridor/movement areas, including access to undisturbed habitats in adjacent areas, should be fully evaluated in the EIR.
 - c) The land use designations and zoning of areas for development projects or other uses that are nearby or adjacent to natural areas that may inadvertently contribute to wildlife-human interactions. A discussion of possible conflicts and mitigation measures to reduce these land use/zoning conflicts should be included in the EIR.
 - d) A cumulative effects inventory and analysis. General and specific plans, as well as past, present, and anticipated future projects, should be analyzed relative to their impacts on

similar plant communities and wildlife habitats.

Mitigation for the Project-related Biological Impacts

- 4) The EIR should include measures to fully avoid and otherwise protect Rare Natural Communities from project-related impacts. CDFW considers these communities as threatened habitats having both regional and local significance.
- 5) The EIR should include mitigation measures for adverse project-related impacts to sensitive plants, animals, and habitats. Mitigation measures should emphasize avoidance and reduction of project impacts. For unavoidable impacts, on-site habitat restoration or enhancement should be discussed in detail. If on-site mitigation is not feasible or would not be biologically viable, and therefore not adequately mitigate the loss of biological functions and values, off-site mitigation through habitat creation and/or acquisition and preservation in perpetuity should be addressed. For off-site mitigation, we recommend use of a CDFW-approved mitigation bank or other acceptable location approved by CDFW. Any lands proposed as mitigation should have a recorded conservation easement and be dedicated to an entity which has been approved to hold/manage lands (AB 1094; Government Code §§ 65965-65968).
- 6) For proposed preservation and/or restoration, the EIR should include measures to perpetually protect the targeted habitat values from direct and indirect negative impacts. The objective should be to offset the project-induced qualitative and quantitative losses of wildlife habitat values. Issues that should be addressed include restrictions on access, proposed land dedications, monitoring and management programs, control of illegal dumping, water pollution, increased human intrusion, etc.
- 7) Plans for restoration and revegetation should be prepared by persons with expertise in southern California ecosystems and native plant revegetation techniques. Each plan should include, at a minimum: (a) the location of the mitigation site; (b) the plant species to be used, container sizes, and seeding rates; (c) a schematic depicting the mitigation area; (d) planting schedule; (e) a description of the irrigation methodology; (f) measures to control exotic vegetation on site; (g) specific success criteria; (h) a detailed monitoring program; (i) contingency measures should the success criteria not be met; and (j) identification of the party responsible for meeting the success criteria and providing for conservation of the mitigation site in perpetuity.

To ensure that all measures to avoid or mitigate significant impacts to biological resources are implemented, the EIR should include a mitigation monitoring and reporting program that clearly describes the impact, proposed measure, implementing entity, timeframe, reporting entity/mechanism, and completion date.

Filing Fees

The project, as proposed, could have an impact on fish and/or wildlife, and assessment of filing fees is necessary. Fees are payable upon filing of the Notice of Determination by the Lead Agency and serve to help defray the cost of environmental review by CDFW. Payment of the fee is required in order for the underlying project approval to be operative, vested, and final (Cal. Code Regs. tit. 14, § 753.5; Fish & Game Code, § 711.4; Pub. Resources Code, § 21089).

Conclusion

We appreciate the opportunity to comment on the project to assist the City in adequately analyzing and minimizing/mitigating impacts to biological resources. CDFW requests an opportunity to review and comment on any response that the City has to our comments and to receive notification of any forthcoming hearing date(s) for the project. If you have any questions or comments regarding this letter, please contact Andrew Valand, Environmental Scientist at Andrew.Valand@wildlife.ca.gov or (562) 342-2142.

Sincerely,



Erinn Wilson
Environmental Program Manager I

cc: CDFW

Victoria Tang – Los Alamitos
Andrew Valand – Los Alamitos
Kelly Schmoker – Pasadena

Scott Morgan (State Clearinghouse)

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Ms. Megan Taggart
City of Lancaster
December 10, 2018

Sawyer, J.O., Keeler Wolf, T., and Evens J.M. 2008. A manual of California Vegetation, 2nd ed.
ISBN 978 0 943460 49 9.

Steve Jenkins

From: Megan Taggart <mtaggart@cityofpalmdale.org>
Sent: Monday, December 10, 2018 8:19 AM
To: 'CJ Martinez'
Cc: Steve Jenkins
Subject: FW: EIR

FYI

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www.cityofpalmdale.org

Hours: Monday-Thursday, 7:30 am-6 pm. Closed Friday.

From: Henry Gallegos [<mailto:eyeshotz5108@gmail.com>]
Sent: Saturday, December 08, 2018 10:06 AM
To: Megan Taggart
Subject: EIR

Hello Megan Taggart, my name is Henry Gallegos, I was notified by certified mail that an Eir was being conducted on property near my property south of Avenue S, near tovey Avenue approximately 1.2 miles west of the 14fwy concerning homes that may be built there. I wanted to go to the meeting on the Nov. 15th, but I wasn't able to because of work. I am very interested about any progress being made concerning homes being built there. I just want you to know that I am for this project to proceed just so long as access to my property is respected and not denied.....I understand that there are animals there that may be affected, but I believe that they will adjust and adapt to survive. I ABSOLUTELY LOVE MY PROPERTY, and my girlfriend and I go there and visit it very regularly, sometimes for the whole weekend... I am very grateful that you have considered me and my thoughts as to the progress of this project.....THANK YOU VERY VERY MUCH.....sincerely, Henry Gallegos.....phone number 424 2009251



Los Angeles County Department of Regional Planning

Planning for the Challenges Ahead



Amy J. Bodek, AICP
Director

January 11, 2019

Megan Taggart, Senior Planner
City of Palmdale
Department of Economic and Community Development

[Via email: mtaggart@cityofpalmdale.org]

Dear Ms. Taggart:

RE: QUAIL VALLEY PROJECT IN PALMDALE

The Department of Regional Planning (Department) appreciates the opportunity to comment and the scope and content of the environmental information related to the proposed project. We have a number of comments and concerns that we would like to see addressed in the next iteration of the environmental document. Please see the following:

Aesthetics:

- Discuss any potential impacts to views from the Antelope Valley Freeway (CA-14), particularly southbound. The 14 Freeway south of Lake Elizabeth Road is designated as a Priority Scenic Drive in the Antelope Valley Area Plan ([AV Plan Scenic Drives Map](#))
- Include visual simulations from the 14 Freeway southbound as well as Palmdale Boulevard
- The proposed project site contains slopes greater than 25% slope and would be subject to the County's hillside management ordinance. Include analysis about how the project is compatible with protecting hillside resources, including minimizing grading, and incorporating sensitive hillside design measures. The project proposes approximately 8.5 million total cubic yards of grading, to be balanced on site

Biological Resources:

Generally, the Department concurs with all the comments provided recently to you by the California Department of Fish and Wildlife. In addition, the Department is concerned with the strong potential loss of wildlife movement opportunity through the project site, as mentioned during a recent meeting with the applicant.

The site lies within a small valley, between suburban developments to the west and east. The canyon drains north towards Anaverde Creek, a likely focus of animal movement.

Currently, obstacles to movement towards the creek include Avenue S and the California Aqueduct. Crossing Avenue S can be accomplished at grade or via culverts; crossing the aqueduct can only be accomplished via culverts. Whatever movement that may currently occur along this connection is likely hazardous or difficult, and development of the project has the potential to make the connection even more difficult to traverse. It is likely that whatever movement is currently occurring via the site towards Anaverde Creek would be displaced to the west or east, making connections in those areas more important. It is also possible that at grade crossings in the vicinity of the project will become more hazardous due to fewer crossing locations becoming available and greater intensity of traffic along the road, resulting in greater numbers of road-killed animals. The DEIR should analyze the potential of project construction to displace or terminate currently tenuous wildlife connections, increase traffic collisions with wildlife, and increase the frequency of wildlife crossings via pathways east and west of the project site. Alternatives or project design features that provide for safe crossing under Avenue S are recommended.

Greenhouse Gas Emissions (GHG):

The County adopted a Community Climate Action Plan (CCAP) to reduce GHG as part of its Air Quality Element in the General Plan. We recommend that all applicable measures be included in the project, including incorporating solar and other renewable energy (including homes with solar and EV), incorporating ride-sharing programs, implementing idling requirements during construction, and using sustainable pavements ([County Community Climate Action Plan](#))

Land Use and Planning:

- The proposed project site is designated for approximately 110 dwelling units under the County's adopted Antelope Valley Area Plan (AV Plan) (Rural Land 1: 1 dwelling unit per acre, Rural Land 2: 1 dwelling unit per 2 acres, and Rural Land 10: 1 dwelling unit per 10 acres). The application proposes 730 dwelling units, which is significantly higher than what was planned within the unincorporated area.
- The proposed project site is located within the County's rural outdoor lighting district. Discuss how the project will be compatible through street and outdoor lighting, with dark skies provisions.

Public Services (Fire, Sheriff, Parks, etc.):

Discuss County trail system, including easements and/or construction of the County backbone trail through the project site (including and beyond tentative map boundary).

Transportation/Traffic:

- The proposed project site contains the proposed Limited Secondary Highway of Barrel Springs Road adopted under the County's Master Plan of Highways. The application materials do not contain any additional information as to the status of the proposed highway and any support for how traffic will be accommodated through the private streets proposed by the subdivision and its effect on the highway network.

- Discuss design of roadway network that facilitates quick evacuation in event of wildfire or other disaster
- Please include discussion regarding how the second means of access (gated only resident access) would be sufficient to meet safety and emergency access needs.

Tribal Cultural Resources:

The Department recommends that an agency other than a homeowners association be the holder of the open space where the recorded tribal cultural resource is located.

If you have any questions regarding these comments, please contact me at (213) 974-6461 or phachiya@planning.lacounty.gov.

Sincerely,



Patricia L. Hachiya, AICP
Supervising Regional Planner
Environmental Planning and Sustainability

C: Susan Tae, AICP, Supervising Regional Planner, Community Studies North
Joseph Decruyeaere, Senior Biologist



DESERT AND MOUNTAIN CONSERVATION AUTHORITY

44811 North Date Avenue, Suite G
Lancaster, California 93534
Phone (310) 589-3200 • Fax (310) 589-2408

May 7, 2019

Megan Taggart, Senior Planner
City of Palmdale
Department of Economic and Community Development
38250 Sierra Highway
Palmdale, California 93550

Comments on Quail Valley Planned Development Environmental Impact Analysis

Dear Ms. Taggart:

The Initial Study downplays the ecological value of the subject property. Fires have occurred for millennia and hence represent just a snapshot in time of a site's ecological value. Any site that potentially supports burrowing owl is ecologically significant. This site is also unique northeast facing wash descending from the Sierra Pelona range.

The proposed project would permanently eliminate a minimum of 483 acres of desert habitat. Furthermore, that 483-acre grading footprint does address inevitable added acres of damage from either remedial grading or equipment turnaround zones. In addition the project would result in dozens of permanent acres of fire department required fuel modification both on and offsite. The project completely fills a USGS blueline stream channel. The project would also result in the substantial loss of juniper, Tucker oak, and Joshua trees. The proposed project reverts to 1980s mass grading schemes with zero conformance to either land form or ecological constraints. The proposed project requires both a General Plan Amendment and a Zone Change which gives the City one hundred percent latitude to demand a project that both better conforms to the site's constraints and provides a better model for future development. The project does not appear to be designed to minimize but rather maximize the use of water for landscaping.

Unavoidable Significant Biological Impacts

The Initial Study is deficient for concluding that totally non-existent mitigation measures would--without question or any analysis--reduce all biological impacts to a level less than significant.

There is no way to mitigate for the loss of almost 500 acres of high quality desert habitat that is perfectly integrated within the Sierra Pelona Mountains core habitat area. The only measure that can significantly reduce the permanent adverse affects of such a gross loss

of habitat is the additional protection of at least an equal amount of habitat that is not in a power line corridor or utility easement and not in a fuel modification zone or within 300 feet of an irrigated area (Argentine ant radius). The proposed set aside of 210 acres in Area B represents high quality habitat. However, the proposed set aside of 185 acres in Area A contains a high percentage of area within utility easements and utility access road easements or in some combination of fuel modification or irrigation zones.

Ecologically the outright elimination of 500 acres of mostly core desert foothill habitat cannot be mitigated below a level of significance without the permanent protection of at least 500 of roughly equivalent habitat in the general area. This is the model that Los Angeles County Regional Planning uses.

Mitigation measures such as-- warning the native animals that the bulldozers are coming or doing final biological surveys to get a last minute tally of what is being destroyed do not mitigate for the loss of habitat. Giving homeowners pamphlets about how to live with wildlife do not either, nor do irrigated trail corridors within a housing development. Only the minimum 1:1 ratio of permanent equivalent habitat type set aside can begin to bring the permanent loss of 500 acres and permanent degradation of at least 35 additional acres to a level of less than significant. We urge the City to accept the science and simplicity of the mitigation ratio model. With a requested Zone Change and General Plan Amendment, the City can require such a science based mitigation measure. All protected habitat must be deed restricted or under the land interest of a public agency prior to map recordation for such mitigation to be assured and to be effective in time relative to the impact occurrence.

Minimum Range of Project Alternatives

Within the existing total project boundary, the Draft Environmental Impact Report (DEIR) must include an economically feasible alternative that would permanently set aside as much habitat as is permanently affected by the implementation of the project including fire department fuel modification zones both within and outside the subject property owner boundary. The area credited on the "permanently protected" side of the ledger cannot include acreage located in utility corridors because the utilities have the right to repeatedly damage that habitat. It also cannot include area within 300 of feet of irrigated areas to maintain a buffer from Argentine ants. The applicant and the EIR preparer cannot claim that all such projects are economically infeasible or do not meet the project objectives because at this stage the property zoning and General Plan designation have not been changed. Especially when a developer buys a property without entitlements, they cannot decree that anything less than their proposed project with just a few cosmetic adjustments is economically infeasible. The DMCA urges the City to steer the applicant into substantially reduced size project or to require a minimum 1:1 habitat protection ratio as detailed above. That gives the applicant the to acquire and transfer offsite habitat too prior to map recordation.

Megan Taggart
Quail Valley Planned Development CEQA Analysis
May 7, 2019
Page 3

The DEIR should also include a “No Blue-Line Stream Grading Alternative.” Such an alternative would not alter any CDFW jurisdictional part of the blueline drainage course onsite except for one or two large culverts or bridges at the highest possible elevations to allow for project road circulation. The project could still include a trail along the drainage course as a project amenity. We urge the City to push such an alternative to maximize ground water replenishment, improve water quality, reduce construction green house gas emissions, and to set a sustainable design example. Such an alternative could use split level pads to better conform to the topography.

The DEIR should also include one alternative that avoids ninety percent of the mapped juniper habitat in Area A.

The DEIR will remain deficient unless it includes a specific permanent funding source for the management of the natural open space. The mitigation value of the natural open space depends on its integrity. It takes money to ensure open space integrity in proximity to a small city especially an open space area with a wide spread dirt road network,

Please direct any questions and future documentation to Paul Edelman of our staff at the above letterhead address, by email a edelman@smmc.ca.gov, and by phone at 310-589-3200 ext. 128.

Sincerely,

A handwritten signature in cursive script that reads "Jeff Olesh".

JEFF OLESH
Chairperson

Appendix C

Notice of Preparation 2024



PALMDALE

a place to call home

NOTICE OF PREPARATION OF A DRAFT ENVIRONMENTAL IMPACT REPORT AND SCOPING MEETING

DATE: September 19, 2024

TO: State Clearinghouse, Public Agencies, Organizations, and Interested Parties

PROJECT: Quail Valley Project

The City of Palmdale, as lead agency under the California Environmental Quality Act (CEQA), will prepare an Environmental Impact Report (EIR) for the proposed residential development project, which would require discretionary approval of Tentative Tract Map No. 65813 and the annexation of the site into the City of Palmdale (hereinafter "Project"). In accordance with Section 15082 of the CEQA Guidelines, the City of Palmdale has issued this Notice of Preparation (NOP) to provide responsible agencies, trustee agencies, and other interested parties with information describing the proposed Project and its potential environmental effects. The City of Palmdale is requesting input from reviewing agencies and the public regarding the scope and content of the EIR.

A Notice of Preparation, Initial Study and Environmental Evaluation for this project was published on 10/23/2018, and a project scoping meeting was held on 11/15/2018. Comments were received from various responsible agencies, trustee agencies, and other interested parties. The project has not substantially changed since 2018, though due to the passage of time, this Notice of Preparation is being provided and a new scoping meeting is being scheduled.

This NOP is also available on the City's website at: <https://www.cityofpalmdaleca.gov/277/Environmental-Documents>.

Due to time limits mandated by State law, your response must be sent at the earliest possible date but no later than 30 days after the date of this notice.

Date of Notice: September 19, 2024

Notice of Preparation Review Period: September 19, 2024 – October 18, 2024

Scoping Meeting: October 3, 2024, at 5pm

The City of Palmdale has received a request to develop approximately 878.1 acres directly south of the City of Palmdale, within the City's Sphere of Influence, in the unincorporated area of Los Angeles County.

Assessor Parcel Numbers are as follows:

Book	Page	Parcel
AREA A		
3054	003	010
3054	004	016
3054	004	017
3054	005	001
3054	005	002
3054	005	003
3054	005	004
3054	005	005
3054	005	006
3054	005	007
3054	005	008
3054	005	009
3054	006	001
3054	006	008
3054	006	009
3054	006	014
3054	006	016
3054	007	008
3054	007	009
3054	007	010
3054	007	012
3054	007	013
3054	007	014
3054	007	017
3054	007	018
3054	007	019
3054	007	020

(Continued)

3054	008	001
3054	008	002
3054	008	003
3054	008	004
3054	008	005
3054	008	006
3054	008	007
3054	008	008
3054	008	009
3054	008	010
3054	012	010
3054	012	011
3054	012	012
3054	012	013
3054	012	014
3054	013	001

Book	Page	Parcel
AREA B		
3054	024	008
3054	024	047
3054	024	068
3054	024	069
3054	024	070
3054	024	071
3054	026	051
3054	026	052
3054	026	055
3054	026	058

The Project site is located on the south side of Avenue S, approximately 1.2 miles west of State Route 14. At buildout, the project would contain a maximum of 730 single-family residential lots, an approximately 3.6-acre Home Owners Association maintained amenity center, an approximately 23-acre greenbelt and trail system, and approximately 396 acres of open space. The proposed project would include necessary infrastructure improvements, including off-site sanitary and water improvements and an annexation of the property and adjacent areas to the City of Palmdale. The project site is undeveloped and vacant land characterized by a mix of valley floor and steep terrain. The subject property is bordered by an existing housing development to the northeast, while rural residential uses are scattered along the easterly and southeasterly boundary. The City Ranch Specific Plan development is located northwest of the site along Avenue S. Also found to the north and east is the California Aqueduct. Primary access to the project is proposed from Avenue S. Secondary access is at Tovey Avenue.

The application filed with the City of Palmdale includes the following:

Tentative Tract Map No. 65813: is a proposed map to subdivide the property into 730 parcels.

Planned Development 18-001 is a proposed site plan for the development of 730 residences, an approximately 3.6-acre Home Owners Association maintained amenity center, an approximately 23-acre greenbelt and trail system, and approximately 396 acres of open space.

Scope of the EIR

In accordance with CEQA, the City of Palmdale requests that agencies review the description of the Project provided in this NOP and provide comments or guidance on the scope of environmental issues related to the statutory responsibilities of the Lead Agency. The EIR will be used by the City of Palmdale when considering the Project for approval and by other Responsible and Trustee Agencies to support their

discretionary actions related to the Project, as applicable. The City of Palmdale is also seeking comments from other interested parties regarding issues they believe should be addressed in the EIR. A Regional Location map, Local Vicinity Map, and the proposed Site Plan for the proposed development of the site are attached hereto.

The City of Palmdale in its capacity as Lead Agency has determined that an Environmental Impact Report (EIR) will be prepared for the proposed Project. The Lead Agency opted to prepare an Initial Study and has determined that the environmental factors checked below would be potentially affected by the proposed project, thereby, requiring analysis in the proposed Project's EIR:

<input checked="" type="checkbox"/> Aesthetics	<input checked="" type="checkbox"/> Greenhouse Gas Emissions	<input checked="" type="checkbox"/> Public Services
<input checked="" type="checkbox"/> Agriculture and Forestry Resources	<input checked="" type="checkbox"/> Hazards and Hazardous Materials	<input checked="" type="checkbox"/> Recreation
<input checked="" type="checkbox"/> Air Quality	<input checked="" type="checkbox"/> Hydrology and Water Quality	<input checked="" type="checkbox"/> Transportation
<input checked="" type="checkbox"/> Biological Resources	<input checked="" type="checkbox"/> Land Use and Planning	<input checked="" type="checkbox"/> Tribal Cultural Resources
<input checked="" type="checkbox"/> Cultural Resources	<input checked="" type="checkbox"/> Mineral Resources	<input checked="" type="checkbox"/> Utilities and Service Systems
<input checked="" type="checkbox"/> Energy	<input checked="" type="checkbox"/> Noise	<input checked="" type="checkbox"/> Wildfire
<input checked="" type="checkbox"/> Geology and Soils	<input checked="" type="checkbox"/> Population and Housing	<input checked="" type="checkbox"/> Mandatory Findings of Significance

The EIR will assess the effects of the proposed Project on the environment, identify potentially significant impacts, identify feasible mitigation measures to reduce or eliminate potentially significant environmental impacts, and discuss potentially feasible alternatives to the Project that may accomplish basic objectives while lessening or eliminating any potentially significant Project-related impacts.

Scoping Meeting

Pursuant to California Public Resources Code Section 21083.9(a)(2) of the CEQA Statute and CEQA Guidelines Section 15082(c), the City of Palmdale will hold a public scoping meeting, where agencies, organizations, and members of the public will receive a brief presentation on the Project, the scope of environmental review, and the overall EIR process. While the issues raised in this meeting will be summarized in the required EIR, anyone wishing to make formal comments on the Notice of Preparation must do so in writing.

The scoping meeting will be held on:

Date and Time: October 3, 2024 – 5:00 pm

Join Zoom Meeting:

<https://us06web.zoom.us/j/83841290482?pwd=ITozgi2df95tYjKuVbIJJaUgabQ7z2I.1>

Meeting ID: 838 4129 0482

Passcode: 483344

The scoping meeting will include time for attendees to provide input on the scope and content of the EIR, including any input regarding potential mitigation measures or possible alternatives to the project.

Opportunity for Public Review and Comment

The issuance of this NOP begins a 30-day public scoping period. The scoping period begins on September 19, 2024, and ends on October 18, 2024. Comments may be sent to the City of Palmdale at any time during the 30-day public scoping period. Please focus your comments on issues related to the scope and content of the environmental analysis that will be included in the EIR. All scoping comments must be received by the City of Palmdale or postmarked by October 18, 2024. Due to the time limits mandated by State law, the City of Palmdale, recommends that your feedback is provided at the earliest possible date, but not provided later than 30 days after the date of this notice. Trustee Agencies and Responsible agencies are asked to identify their statutory authorities pertaining to the Project. If applicable, please include the name and contact information of a contact person for your agency. Direct all comments to:

City of Palmdale - Department of Economic and Community Development

Attn: Brenda Magaña, Planning Manager

38250 Sierra Highway

Palmdale, CA 93550

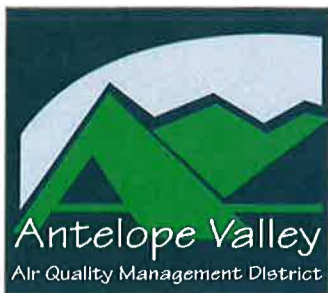
Comments may also be emailed to: bmagana@cityofpalmdale.org

Attachments:

Figure 1 – Regional Location

Figure 2 – Local Vicinity

Figure 3 – Conceptual Site Plan



Antelope Valley Air Quality Management District

2551 West Avenue H Lancaster, CA 93536

661-723-8070

www.avaqmd.ca.gov

Barbara Lods, Executive Director

In reply, please refer to AV0924/133

September 26, 2024

Brenda Magana
City of Palmdale
38250 Sierra Highway
Palmdale, CA 93550

Project: Quail Valley Project

To Whom It May Concern:

The Antelope Valley Air Quality Management District (District) has received the request to review planning documents for the Quail Valley Project proposing a residential development project, which would require discretionary approval of Tentative Tract Map No. 65813 and the annexation of the site into the City of Palmdale (hereinafter "Project"). This project site is located on the south side of Avenue S, approximately 1.2 miles west of State Route 14 in the City of Palmdale, CA (APNs: 3054-003-010, 3054-004-016, -017, 3054-005-001, -002, -003, -004, -005, -006, -007, -008, -009, 3054-006-001, -008, -009, -014, -016, 3054-007-008, -009, -010, -012, -013, -014, -017, -018, -019, -020, 3054-008-001, -002, -003, -004, -005, -006, -007, -008, -009, -010, 3054-012-010, -011, -012, -013, -014, 3054-013-001, 3054-024-008, -047, -068, -069, -070, -071, 3054-026-051, -052, -055, -058).

Prior to initiating any grading or grubbing construction activity, the District requires submission of the required Construction Excavation Fee as well as compliance with all prerequisites outlined in District Rule 403, *Fugitive Dust*, including submission and approval of a Dust Control Plan, installation of signage and the completion of a successful onsite compliance inspection by an AVAQMD field inspector.

During the construction phase, all disturbed areas should be stabilized so that no visible fugitive dust leaves the property line and does not impact traffic or neighboring residents. If an area of one-half acre or more of Disturbed Surface Area remains unused for seven or more days, the area must comply with the conditions for a Stabilized Surface outlined in Rule 403. Upon completion of the project, all disturbed surface areas must meet the definition of a stabilized surface, as defined in Rule 403 and verified by District staff.

All construction equipment utilized on this project must comply with Air Resources Board In-Use Off-Road Diesel Vehicle Regulation.

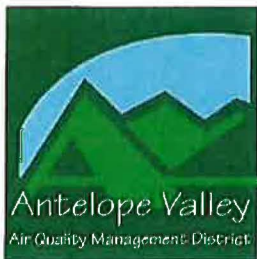
Prior to the issuance of any Permit by the City of Palmdale and the commencement of grading or construction activity, all projects must undergo clearance by the Antelope Valley Air Quality Management District (AVAQMD).

Thank you for the opportunity to review this planning document. If you have any questions regarding the information presented in this letter please contact me at (661) 723-8070 ext. 23 or blods@avaqmd.ca.gov.

Sincerely,

Barbara Lods

Barbara Lods
BJL/SS
Sent via Email



Antelope Valley Air Quality Management District
2551 W Avenue H, Suite 102
Lancaster, CA 93536

661.723.8070

City of Palmdale Clearance Checklist

Project Name: Quail Valley Project

Project ID: TTM65813

Location: APNs: multiple APNs (original proj)

Avenue S & SR 14

Acres: 667.5-acres

Planner: Brenda Magana

Chron #: AV0924/133

Prior to the issuance of any Permit by the City of Palmdale and the commencement of grading or construction activity, all projects must undergo clearance by the Antelope Valley Air Quality Management District (AVAQMD) for the following:

- ☒ Rule 302-Construction Excavation Fee
- ☒ Dust Control Plan (DCP) with Signage
 - ☐ Dust Control Signage (Only)
 - ☐ Project Signage Information Form
- ☒ Rule 219-Permitting
- ☒ CARB Equipment
 - ☐ Rule 1403-Asbestos
 - ☐ Cannabis Odor Control Plan
 - ☐ Other:

For Office Use Only

Date Received: _____

Authorized District Signature: _____

Additional Notes:

Date Approved (Stamp):





State of California – Natural Resources Agency
DEPARTMENT OF FISH AND WILDLIFE
South Coast Region
3883 Ruffin Road
San Diego, CA 82123
(858) 467-4201
www.wildlife.ca.gov

GAVIN NEWSOM, Governor
CHARLTON H. BONHAM, Director



October 18, 2024

Brenda Magana
City of Palmdale
Planning Department
38250 N. Sierra Highway
Palmdale, CA 93550
bmagana@cityofpalmdale.org

SUBJECT: NOTICE OF PREPARATION OF A DRAFT ENVIRONMENTAL IMPACT REPORT FOR THE QUAIL VALLEY PROJECT; SCH 2024100065; CITY OF PALMDALE, LOS ANGELES COUNTY, CA

Dear Brenda Magana:

The California Department of Fish and Wildlife (CDFW) has reviewed the above-referenced Notice of Preparation (NOP) of a Draft Environmental Impact Report (DEIR) for the Quail Valley Project (Project) pursuant to the California Environmental Quality Act (CEQA) and CEQA Guidelines, with the County acting as lead CEQA agency.¹

Thank you for the opportunity to provide comments and recommendations regarding those activities involved in the Project that may affect California fish and wildlife. We appreciate the opportunity to provide comments regarding those aspects of the Project that CDFW, by law, may be required to carry out or approve through the exercise of its own regulatory authority under the Fish and Game Code.

CDFW's Role

CDFW is California's Trustee Agency for fish and wildlife resources and holds those resources in trust by statute for all the people of the State (Fish & G. Code, §§ 711.7, subdivision (a) & 1802; Pub. Resources Code, § 21070; CEQA Guidelines, § 15386, subdivision (a)). CDFW, in its trustee capacity, has jurisdiction over the conservation, protection, and management of fish, wildlife, native plants, and habitat necessary for biologically sustainable populations of those species (Id., § 1802). Similarly, for purposes of CEQA, CDFW is mandated to provide, as available, biological expertise during public agency environmental review efforts, focusing specifically on projects and

¹ CEQA is codified in the California Public Resources Code in section 21000 et seq. The "CEQA Guidelines" are found in Title 14 of the California Code of Regulations, commencing with section 15000. Lead agency is defined in CEQA Guidelines section 15367.

Brenda Magana
City of Palmdale
October 18, 2024
Page 2 of 23

related activities that have the potential to adversely affect State fish and wildlife resources.

CDFW is also submitting comments as a Responsible Agency under CEQA (Public Resources Code, § 21069; CEQA Guidelines, § 15381). CDFW expects that it may need to exercise regulatory authority as provided by the Fish and Game Code. As proposed, for example, the Project may be subject to CDFW's lake and streambed alteration regulatory authority (Fish & Game Code, § 1600 et seq.). To the extent implementation of the Project as proposed may result in "take" as defined by State law of any species protected under the California Endangered Species Act (CESA) (Fish & Game Code, § 2050 et seq.), the project proponent may seek related take authorization as provided by the Fish and Game Code.

PROJECT DESCRIPTION AND SUMMARY

Proponent: City of Palmdale

Objective: The Project will consist of rezoning and developing 878.1 total acres for a residential housing complex in southwestern Palmdale. The City of Palmdale is proposing to annex the entire 878.1-acre vacant Project site, together with a General Plan Amendment, to change the land use designation of approximately 600.4 acres from Low Density Residential (LDR) to a variety of higher density Single Family Residential (SFR) designation. The Project site is comprised of two primary land areas – Area A (primarily Tentative Tract Map 65813) and Area B. Area A occupies 667.5 acres in the northerly Project site adjacent to Avenue S and will contain the 483-acre developed portion of the Project site. Area B comprises 210.6 acres in the higher elevations of the foothills to the ridgeline of the Sierra Pelona Mountains and will be preserved in its entirety as undisturbed. Development of the Project site would include installation of access roads and utilities (water, sewer, electric, and gas). Prior to construction activities, the entire Project area will be graded.

Location: The Project is located in the southwestern portion of the City of Palmdale (City) within the Antelope Valley portion of the Mojave Desert. The main Project area is located on the south side of Avenue S and west of Tovey Avenue.

Biological Setting: No biological resource assessment for the Project area was provided with this current NOP. A previous NOP related to this site called the Quail Valley Development Project NOP was circulated in 2018. That previous NOP's supporting documentation includes an *Initial Study and Environmental Evaluation* (IS), dated October 23, 2018, provided by the City of Palmdale.

Based on aerial imagery and the Initial Study, the 878.1-acre Project area is undeveloped with evidence of off-road vehicular tracks, historical grading, illegal refuse dumping, and unpaved roads throughout the area. Vegetation on site appears to be a

Brenda Magana
City of Palmdale
October 18, 2024
Page 3 of 23

mix of desert communities with California juniper (*Juniperus californica*) habitat and grassland. The Project area supports multiple drainage features that are tributaries to Anaverde Creek. CDFW is concerned that the Project has the potential to impact several special-status wildlife species including: Crotch's bumble bee (*Bombus crotchii*; CESA candidate species), northern California legless lizard (*Anniella pulchra*; California Species of Special Concern (SSC)), mountain lions (*Puma concolor*; CESA candidate species), burrowing owl (*Athene cunicularia hypugaea*; CESA candidate species), Swainson's Hawk (*Buteo swainsoni*; CESA-listed) tricolored blackbird (*Agelaius tricolor*; CESA-listed), and other raptors and migratory birds.

COMMENTS AND RECOMMENDATIONS

CDFW offers the comments and recommendations below to assist the City in adequately identifying, avoiding, and/or mitigating the Project's significant, or potentially significant, direct and indirect impacts on fish and wildlife (biological) resources. Additional comments or other suggestions may also be included to improve the document.

For impacts demonstrated to be unavoidable in the DEIR, CDFW recommends the measures or revisions provided below should be included by the City in a science-based monitoring program that contains adaptive management strategies as part of the Project's CEQA mitigation, monitoring and reporting program (Public Resources Code, § 21081.6 and CEQA Guidelines, § 15097).

SPECIFIC COMMENTS

- 1) Programmatic EIR. A full buildout of the Project is anticipated to occur over a span of 13 phases. Given that Project activities would occur during different phases and would have similar environmental effects, CDFW recommends that the City prepare a Programmatic EIR (PEIR) for public review and comment (California Code of Regulations, Title 14 §15168(a)(4)). The PEIR should provide a complete discussion of the direct and indirect impacts on biological resources for all phases of the Project. The Project may continually impact biological resources through activities such as but not limited to ground disturbance, continuous elevated noise, encroachment, vegetation clearing, and/or stream alternation. Mitigation measures incorporated in the PEIR should be drafted in a manner that would reduce Project impacts to a level less than significant for all phases. In the absence of a programmatic environmental document, the DEIR should analyze and discuss every phase of the Project such that CDFW can ascertain whether impacts to biological resources have been adequately avoided, minimized, and/or mitigated for each phase and cumulatively for all phases.
- 2) Biological Resources Assessment. While CDFW appreciates that field surveys were conducted in 2018, as described in the IS, an updated general field survey should be conducted prior to Project activities to provide a current depiction of wildlife

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utilizing the Project area. Generally, surveys older than two years are unable to accurately represent baseline conditions for biological resources. The new biological resources assessment should include a complete assessment and impact analysis of the flora and fauna within the Project area. The assessment and analysis should place emphasis upon identifying endangered, threatened, sensitive, regionally, and locally unique species, and sensitive habitats. CDFW also considers impacts to SSC a significant direct and cumulative adverse effect without implementing appropriate avoidance and/or mitigation measures.

- 3) Burrowing Owl. A review of California Natural Diversity Database (CNDDB) indicates multiple occurrences of burrowing owl within two miles north of the Project site. As indicated in the supplemental IS, the Project site has the potential to support burrowing owls and therefore pre-disturbance surveys should be conducted prior to initiation of Project development. Additionally, the Project area may support open grassland with inactive small mammal burrows, which is suitable habitat for burrowing owls. Due to various factors including direct mortality, habitat loss and population decline from urbanization and reduction or elimination of their primary burrow excavators (ground squirrels) from grazing and agricultural lands, burrowing owls were recently petitioned to be listed as an endangered or threatened species under CESA by the Center of Biological Diversity (CBD 2024). In October 2024, the State Fish and Game Commission unanimously approved naming the western burrowing owl as a candidate for potential listing as a protected species under the CESA. Project activities may adversely impact burrowing owl through misdetention of burrowing owl, burrow destruction, construction disturbance (i.e., elevated noise, vibration), permanent removal of habitat, and injury and/or mortality. The Department will undertake a one-year review of the species' status before the Commission is expected to make a final decision on listing. As a candidate for potential listing, the western burrowing owl is temporarily afforded the same protections as a state-listed endangered or threatened species. If the Project cannot ensure burrowing owls and their burrows are fully avoided, the Project proponent shall consult with CDFW and obtain appropriate take authorization or otherwise demonstrate compliance with CESA.

To evaluate potential impacts to burrowing owls from the Project, CDFW recommends that a qualified biologist conduct focused surveys for this bird species and the results be incorporated into the EIR including project design, baseline conditions, environmental analysis, alternatives and proposed mitigation. A qualified biologist should survey for burrowing owls adhering to survey methods described in CDFW's [Staff Report on Burrowing Owl Mitigation](#) (CDFW 2012). The survey area should include the Project area and a 150-meter buffer around the Project area, where suitable habitat is present. Survey protocol for breeding season owl surveys are four survey visits: 1) at least one site visit between February 15 and April 15, and 2) a minimum of three survey visits, at least three weeks apart, between April 15 and July 15, with at least one visit after June 15 (CDFW 2012).

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The DEIR should provide data on the presence or absence of burrowing owls and discuss the Project's impact on burrowing owls and suitable owl habitat. An impact assessment for burrowing owls should consider that this species is somewhat transitory seasonally and should evaluate impacts resulting from Project construction (e.g., grading) activities, as well as from habitat loss on site and cumulatively in the surrounding region in Lancaster and the broader Antelope Valley. Adequate disclosure in the DEIR is recommended so CDFW may review data pertaining to burrowing owls and provide comments and recommendations specific to the Project's potential alternatives, mitigation measures, and any potential significant effects. CDFW recommends mitigation methods described in the Staff Report on Burrowing Owl Mitigation.

- 4) Swainson's Hawk. A review of CNDDDB indicates recorded observations of Swainson's hawk, a CESA-listed threatened species, within 2.5 miles (northeast) of the site. Swainson's hawks are regularly observed foraging throughout the Palmdale and Lancaster area. The Project could impact nesting and foraging habitat for Swainson's hawk. To evaluate potential impacts to Swainson's hawk from the Project, CDFW recommends that a qualified biologist conduct focused surveys for this CESA-listed species and the results be incorporated into the EIR including project design, baseline conditions, environmental analysis, alternatives and proposed mitigation.

According to the [Swainson's Hawk Survey Protocols, Impact Avoidance, and Minimization Measures for Renewable Energy Projects in the Antelope Valley of Los Angeles and Kern Counties, California](#) (CEC 2010), a biologist should conduct surveys in a manner that maximizes the potential to observe the adult Swainson's hawks and the nest/chicks via visual and audible cues within a five-mile radius of the project. All potential nest trees within the five-mile radius should be surveyed for presence of nests. Surveys should be repeated within the five-mile radius if a survey season ensues or elapses before the onset of project related activities. If construction begins mid-survey season the year after the initial surveys, then the surveys should continue for that part of the season before construction. Findings and potential impacts should be included in the DEIR. If the Project would impact Swainson's hawk, directly or indirectly, the DEIR should provide measures to minimize, and/or mitigate potential impacts to Swainson's hawk as well as habitat supporting the species. If "take" of Swainson's hawk would occur from Project construction or operation, the Project proponent should obtain CESA authorization (i.e., Incidental Take Permit; ITP). Additional documentation may be required as part of an ITP application for the Project in order for CDFW to adequately develop an accurate take analysis and identify measures that would fully mitigate for take of a CESA-listed species. Early consultation is encouraged, as significant modification to a Project and mitigation measures may be required to obtain a CESA Permit. Revisions to the Fish and Game Code, effective January 1998, may require that CDFW issue a separate CEQA document for the issuance of an ITP unless the Project CEQA document addresses all Project impacts to CESA-listed species and

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specifies a mitigation monitoring and reporting program that will meet the requirements of an ITP. For these reasons, biological mitigation monitoring and reporting proposals should be of sufficient detail and resolution to satisfy the requirements of a CESA ITP

- 5) Tricolored Blackbird. A review of CNDDDB indicates recorded observations of tricolored blackbird, a CESA-listed threatened species, 1.5 miles (east) of the site. Due to the proximity of the Project site to Lake Palmdale, the onsite presence of riparian vegetation, and documented occurrence of tricolored blackbirds in the area, the Project has a potential to impact this bird species from the loss of foraging and nesting habitat and indirect effects (noise, lighting, introduction of non-native flora and fauna).

To evaluate potential impacts to tricolored blackbird from the Project, CDFW recommends that a qualified biologist conduct focused surveys this CESA-listed species and the results be incorporated into the EIR including project design, baseline conditions, environmental analysis, alternatives and proposed mitigation. Prior to initiation of construction within or adjacent to suitable nesting habitat, a CDFW-approved biologist with experience surveying for and observing tricolored blackbird should conduct preconstruction surveys in accordance with established protocols to determine use of nesting habitat by tricolored blackbird colonies. Surveys should be conducted within and adjacent to suitable habitat, where access allows, during the nesting season (generally March 15 to July 31). If a nesting colony is found, no activity should occur within a 500-foot buffer of the colony until a qualified biologist determines and CDFW confirms that all chicks have fledged and are no longer reliant on the nest site.

The DEIR should contain avoidance measures to tricolored blackbirds in rural areas as recommended in the Department [Staff Guidance Regarding Avoidance of Impacts to Tricolored Blackbird Breeding Colonies on Agricultural Fields, March 19, 2015](#) (CDFW 2015). If take of tricolored blackbird would occur from Project construction or operation, CDFW recommends the Project obtain appropriate take authorization under CESA which may include an ITP. Early consultation is encouraged, as significant modification to a Project and mitigation measures may be required to obtain a CESA Permit. Revisions to the Fish and Game Code, effective January 1998, may require that CDFW issue a separate CEQA document for the issuance of an ITP unless the Project CEQA document addresses all Project impacts to CESA-listed species and specifies a mitigation monitoring and reporting program that will meet the requirements of an ITP.

- 6) Crotch's Bumble Bee. Crotch's bumble bee is a generalist bee species that can utilize a variety of habitats including open areas and desert scrub communities for nesting and foraging opportunities. According to the [California Natural Diversity Database \(CNDDDB\)](#), there is a historical observation of Crotch's bumble bee within two miles of the Project area (CDFW 2024a). Additionally, the Project area falls

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within the current range for Crotch's bumble bee (CDFW 2023a). Focused surveys should be conducted to determine Crotch's bumble bee presence/absence within the Project area. Without a focused survey, Project activities could result in permanent loss of floral resources and nesting sites, nest abandonment, and/or direct injury or mortality of Crotch's bumble bee.

In preparation of the DEIR, CDFW recommends the City require the Project proponent to retain a qualified entomologist with the appropriate handling permits to conduct focused surveys for Crotch's bumble bee. Focused surveys should follow CDFW's [Survey Considerations for California Endangered Species Act Candidate Bumble Bee Species](#) (CDFW 2023b). Focused surveys should also be conducted throughout the entire Project area during the appropriate flying season to ensure no missed detection of Crotch's bumble bee occurs. Findings from the focused survey should be incorporated into the DEIR including project design, baseline conditions, environmental analysis, alternatives and proposed mitigation.

The DEIR should also provide a discussion of habitat suitability for Crotch's bumble bee and analyze the Project's potential direct and indirect impacts to the bumble bee. If the Project would impact Crotch's bumble bee, the DEIR should provide measures to minimize, and/or mitigate potential impacts to Crotch's bumble bee as well as habitat supporting the species. Coordination with CDFW is recommended and may include obtaining appropriate take authorization under CESA. Early consultation is encouraged, as significant modification to a Project and mitigation measures may be required to obtain a CESA Permit. A separate CEQA document may be needed by CDFW for the issuance of an ITP unless the Project CEQA document addresses all Project impacts to CESA-listed species and specifies a mitigation monitoring and reporting program that will meet the requirements of an ITP.

- 7) Mountain Lion. The Project site may impact movement of mountain lions (*Puma concolor*, CESA candidate species) and other large or medium sized mammals between natural habitat areas/open space. Mountain lions are known to occur in throughout the Transverse Ranges, including the Sierra Pelona Mountains, and may occur within the Project footprint or in areas immediately adjacent to the Project (Elbroch 2020). Habitat loss and fragmentation due to roads and development has driven the southern California mountain lion population towards extinction (Yap et al. 2019). Maintaining wildlife corridors and habitat continuity is essential for wildlife survival and is increasingly important considering habitat loss and climate change. In preparation of the DEIR, CDFW recommends the City conduct studies to document wildlife activity and movement through the Project site. The results, including mapped data, and a discussion of how the Project may affect wildlife movement and dispersal should be provided in the DEIR. The DEIR should also include mitigation measures that demonstrate that direct impacts to this species would be avoided and also address the reduction of wildlife corridor and impacts to wildlife movement.

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- 8) Nesting Birds and Raptors. The Project area may provide suitable habitat for nesting birds and raptors. According to the IS, significant portions of the Project site are dominated by various woodland and chaparral species, which provide suitable nesting and foraging habitat for nesting birds. Based on a review of data including CNDDDB, there are historic records of loggerhead shrike (*Lanius ludovicianus*), Le Conte's thrasher (*Toxostoma lecontei*), and the Southern California rufous-crowned sparrow (*Aimophila ruficeps*), all CDFW species of special concern, less than two miles away from the Project site in multiple directions. Implementation of the Project during bird breeding and nesting season may result in the incidental loss of fertile eggs or nestlings, or otherwise lead to nest abandonment. California Fish and Game Code (Sections 3503, 3503.5, and 3513) prohibits take of all birds and their active nests, including raptors and other migratory nongame birds as listed under the Federal Migratory Bird Treaty Act of 1918 (Code of Federal Regulations, Title 50, § 10.13). It is unlawful to take, possess, or needlessly destroy the nest or eggs of any nesting bird.

CDFW recommends the City provide a discussion of the Project's impacts on nesting birds and raptors. Additionally, the City should incorporate measures in the DEIR to fully avoid impacts on nesting birds and raptors. To avoid impacts to nesting birds, CDFW recommends that clearing of vegetation occur outside of the peak avian breeding season, which general runs from February 1 through September 1 (as early as January 1 for some raptors). If Project construction is necessary during the bird breeding season, a biologist with experience in conducting breeding bird surveys should conduct a nesting bird survey within three days prior to work in the area. If an active nest is identified, a buffer shall be established between the construction activities and the nest so that nesting activities are not interrupted. For the given Project site, CDFW generally recommends a 100-foot buffer from common avian species, 300 feet for listed or highly sensitive, and 500 feet for raptors. Buffers should be delineated by temporary fencing and remain in effect as long as construction is occurring. No Project construction shall occur within the fenced nest zone until the young have fledged, are no longer being fed by the parents, have left the nest, and will no longer be impacted by the Project. Reductions in the nest buffer distance may be appropriate depending on the avian species involved, ambient levels of human activity, screening vegetation, or possibly other factors.

- 9) CESA. The Project area may support CESA-listed and candidate species, such as burrowing owl, tricolored blackbird, Swainson's hawk, Crotch's bumble bee, and mountain lion. CDFW considers adverse impacts to a species protected by CESA to be significant. Take of any CESA endangered, threatened, candidate species that results from the Project is prohibited, except as authorized by state law (Fish & G. Code §§ 2080, 2085; Cal. Code Regs., tit. 14, §786.9). Consequently, if the Project or any Project-related activity will result in take of a species designated as endangered or threatened, or a candidate for listing under CESA, CDFW recommends that the Project proponent seek appropriate take authorization under

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CESA prior to implementing the Project. Appropriate authorization from CDFW may include an Incidental Take Permit (ITP) or a consistency determination in certain circumstances, among other options (Fish & G. Code, §§ 2080.1, 2081, subds. (b) and (c)). Early consultation is encouraged, as significant modification to a Project and mitigation measures may be required to obtain a CESA Permit. To ensure CDFW will be able to use the City's CEQA document for the issuance of any ITP, the DEIR should address all Project impacts to CESA-listed species and specify a mitigation, monitoring, and reporting program that will meet the requirements of an ITP.

- 10) Species of Special Concern. Northern California legless lizards (*Anniella pulchra*) were observed and recorded through CNDDDB within a mile of the Project area. Project activities may result in death or injury of adults, juveniles, eggs, or hatchlings. Moreover, buildout of the Project may eliminate foraging, breeding, or nesting habitat and refugia for this SSC. In preparation of the DEIR, CDFW recommends that City thoroughly discuss the potential impacts to this SSC. The City should also incorporate suitable mitigation measures to offset the impacts on sensitive reptile species and their habitats. It should be noted that the temporary relocation of wildlife does not constitute effective mitigation for the purpose of offsetting permanent Project impacts associated with habitat loss.
- 11) Rare Plants. The Biological Section of the IS indicates that at least two sensitive plant species, Pierson's morning glory (*Calystegia piersonii*) and short-joint beavertail (*Opuntia basilaris*) were found onsite. A review of CNDDDB also shows that short-joint beavertail is found in multiple locations surrounding the Project site. Western Joshua tree (*Yucca brevifolia*; CESA candidate species) and California junipers (*Juniperus californica*) were also surveyed on the Project site. The IS further indicates that the most recent survey for special-status plant species was conducted in 2014.

Construction activities and vegetation removal may result in loss of individuals and seedbank and contribute to the population decline of these rare plants. Given that survey assessments are 6-10 years old and may or may not have occurred during the blooming period, the locations of all sensitive plant species may not be known. CDFW recommends the Project proponent incorporates a measure that requires a rare plant survey to be conducted prior to any ground-disturbing activities to ensure that no impacts to undetected rare plants occur. CDFW also recommends a qualified botanist conduct a rare plant survey, adhering to CDFW's [Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Sensitive Natural Communities](#) (CDFW 2018). If rare plants are observed within the Project area, the qualified botanist should implement an adequate buffer around the individual plant or population to prevent any potential adverse impacts. If avoidance is not achievable, the City should offset the loss of rare plants through compensatory mitigation at a minimum of 2:1 ratio. Translocation of these species

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are not advisable, as currently there is insufficient data to support that such translocations would be successful.

- 12) Western Joshua Tree. Western Joshua trees are present within the Project area. In addition to protection under CESA, the Western Joshua Tree Conservation Act (WJTCA) also protects western Joshua trees. The WJTCA was enacted in July 2023 and prohibits the importation, export, take, possession, purchase, or sale of any western Joshua tree in California unless authorized by CDFW (CDFW 2024h). If any living or dead western Joshua tree is present within a Project site, the Project proponent would need to obtain the appropriate permit from CDFW prior to ground-disturbing activities. CDFW recommends that the City retain a qualified biologist to conduct a western Joshua tree census throughout the entire Project area. Findings from the western Joshua tree census should be disclosed in the DEIR for public review.

In addition to disclosing the census findings in the DEIR, CDFW recommends that the City provide a discussion on the Project's direct and indirect impacts on individual western Joshua trees and seedbank. Moreover, it should be disclosed in the DEIR whether the City intends to remove all of the western Joshua trees or retain a certain number of western Joshua trees. If the City intends to remove all trees from the Project area, the City should state whether removal of western Joshua trees would occur all at once or in phases. If western Joshua trees remain on site, negative impacts may occur as a result of dust and soil compaction from nearby construction activities. Lastly, the City should disclose in the DEIR whether the Project proponent intends to obtain an incidental permit or any other appropriate take authorization under CESA or obtain permit under the WJTCA (Fish & G. Code, §§ 1927-1927.12). If conventional take authorization under CESA is proposed, the DEIR should also include analysis of the Project's impact on the seedbank of western Joshua trees.

- 13) Lake and Streambed Alteration Agreement. CDFW is concerned that the Project location supports streams subject to notification under Fish and Game Code section 1600 *et seq.* Based on the location of the Project site (at the bottom of multiple canyons) and a review of satellite imagery, the Project is likely to require a Lake or Streambed Alteration (LSA) Notification for grading and construction activities. The Biological Resources Section of the IS states, "Approximately 2.01 acres of California Department of Fish and Wildlife jurisdiction is associated with the Project site; 1.42 acres of which consist of riparian vegetation." As indicated in the Hydrology Section of the IS, "Project development will significantly alter the existing drainage pattern of Area A...", further highlighting the need for notification under Fish and Game Code section 1600 *et seq.* CDFW recommends the City require the Project proponent to obtain a Lake and Streambed Alteration Agreement prior to the start of Project activities. The DEIR should discuss the Project's impact on the streams and include a stream delineation and evaluation of impacts. Impacts would include grading streams and removing associated vegetation.

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CDFW exercises its regulatory authority as provided by Fish and Game Code section 1600 et seq. to conserve fish and wildlife resources which include rivers, streams, or lakes and associated natural communities. As a Responsible Agency under CEQA, CDFW has authority over activities in streams and/or lakes that will divert or obstruct the natural flow, or change the bed, channel, or bank (including vegetation associated with the stream or lake) of a river or stream or use material from a streambed. For any such activities, the Project proponent (or “entity”) must notify CDFW. Accordingly, because the Project would impact streams, the DEIR should include measures that require the Project proponent to notify CDFW pursuant to Fish and Game Code section 1602 prior to starting activities. Please visit CDFW’s [Lake and Streambed Alteration Program](#) webpage for more information (CDFW 2024c).

- 14) Trail Plan and Recreation. The proposed Project includes plans to expand and improve the series of trails found on the Project site, connect to the County Backbone Trail and the Palmdale Hills Trail, and make them available for public use. Project activities, such as trail widening and the installation of benches or shade structures, are likely to accommodate (and subsequently may lead to) increased hiker frequency and duration on trails found on-site. Elevated hiker usage can create direct and indirect impacts to local wildlife species through the loss of potential habitat. An increase in the number of hikers has potential to impact sensitive wildlife species and their habitat through a variety of ways including:

- Increased numbers of people and dogs using the trail system
- Loss of habitat due to erosion from footpaths
- Increased noise levels
- Increased trash or pet waste
- Introduction of unnatural food sources via trash and trash receptacles
- Introduction of invasive species from other sites

CDFW requests that the Recreational Trails Plan included as part of the Project be included with the DEIR so that the public, CDFW and other interested entities may have an opportunity to review it and provide feedback to the City prior to the consideration of the final EIR. CDFW recommends the Recreation Trails Plan include:

- a. Setting aside conserved acreage of sensitive vegetation communities in a manner that is isolated and free from influence by recreational usage. These conserved areas should be oriented to provide refugia for species that may be flushed or relocated by the presence of trails.

For proposed preservation and/or restoration, the environmental document should include measures to protect the targeted habitat values in perpetuity from direct and indirect negative impacts. The objective should be to offset the

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Project-induced qualitative and quantitative losses of wildlife habitat values. Issues that should be addressed include, but are not limited to, restrictions on access, proposed land dedications, monitoring and management programs, control of illegal dumping, water pollution, and increased human intrusion. An appropriate non-wasting endowment should be provided for the long-term monitoring and management of mitigation lands. CDFW recommends that mitigation occur at a CDFW-approved bank or via an entity that has been approved to hold and manage mitigation lands pursuant to Assembly Bill 1094 (2012), which amended Government Code sections 65965-65968. Under Government Code section 65967(c), the Lead Agency must exercise due diligence in reviewing the qualifications of a governmental entity, special district, or nonprofit organization to effectively manage and steward land, water, or natural resources on mitigation lands it approves.

- b. Understanding wildlife responses to recreation and the area of influence of human activities may help managers judge whether wildlife populations are experiencing stress due to interactions with humans and may aid in tailoring recreation plans to minimize long-term effects to wildlife from disturbance. The DEIR should include an analysis of recreational usage of the trail system in which current levels of traffic (hiker, biker, and dog) is compared to the expected increase in traffic as a result of trail improvements.
- c. Educational materials and signage should be made available to trail users to keep aware of the impacts that human disturbance brings to open spaces. Hikers should be made aware of the impacts that they have on surrounding habitat (such as noise or smells), particularly during breeding seasons.

CDFW recommends the City install appropriate public information signage at trailheads to 1) educate and inform the public about wildlife present in the area; 2) advise on proper avoidance measures to reduce human-wildlife conflicts; 3) advise on proper use of open space trails in a manner respectful to wildlife; and, 4) provide local contact information to report injured or dead wildlife. Signage should be written in the language(s) understandable to all those likely to recreate and use the trails. Signage should not be made of materials harmful to wildlife such as spikes or glass. The City should provide a long-term maintenance plan to repair and replace the signs.

- d. Restrictions on types of activities allowed in some areas, such as prohibiting dogs or restricting use to trails near active breeding habitat, will aid in minimizing disturbance. Pets should be kept on leash and on trails at all times. Hikers should be encouraged to clean up after their dogs and discourage animal waste as it tends to lead to wildlife avoidance.
- e. Trash receptacles should be placed only at trailheads to avoid creating an unnatural food source that may attract nuisance wildlife and to minimize waste

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in core habitat areas.

- 15) Wildlife Friendly Fencing. The Project proposes installing fencing within the Project area. Fencing could obstruct wildlife movement and result in wildlife injury or mortality due to impalement and entanglement (e.g., chain link fencing). If the Project would include temporary and/or permanent fencing, prior to preparation of the DEIR, CDFW recommends the City provide wildlife friendly fencing designs. Fencing designs should be disclosed and evaluated in the DEIR for potential impacts on biological resources and wildlife movement. The DEIR should discuss how fencing proposed for the Project would minimize impacts on biological resources, specifically wildlife movement. CDFW supports the use of wildlife-friendly fencing. Wildlife-friendly fencing should be used and strategically placed in areas of high biological resource value in order to protect biological resources, habitat, and wildlife movement. CDFW recommends [A Landowner's Guide to Wildlife Friendly Fences](#) for information wildlife-friendly fences (MFWP 2012).
- 16) Landscaping. The Project's landscaping plan should be disclosed and evaluated in the DEIR for potential impacts on biological resources such as natural communities adjacent to the Project area (e.g., introducing non-native, invasive species). CDFW supports the use of native plants for the Project especially considering the Project's location adjacent to protected open space and natural areas. CDFW strongly recommends avoiding non-native, invasive species for landscaping and restoration, particularly any species listed as 'Moderate' or 'High' by the [California Invasive Plant Council](#) (Cal-IPC 2024).

CDFW supports the use of native species found in naturally occurring plant communities within or adjacent to the Project area. In addition, CDFW supports planting species of trees, such as oaks (*Quercus* genus), and understory vegetation (e.g., ground cover, subshrubs, and shrubs) that create habitat and provide a food source for birds. CDFW recommends retaining any standing, dead, or dying tree (snags) where possible because snags provide perching and nesting habitat for birds and raptors. Finally, CDFW supports planting species of vegetation with high insect and pollinator value.

GENERAL COMMENTS:

- 1) Disclosure. The DEIR should provide an adequate, complete, and detailed disclosure about the effects which a proposed project is likely to have on the environment (Pub. Resources Code, § 20161; CEQA Guidelines, § 15151). Such disclosure is necessary so CDFW may provide comments on the adequacy of proposed avoidance, minimization, or mitigation measures, as well as assess the significance of the specific impact relative to plant and wildlife species impacted (e.g., current range, distribution, population trends, and connectivity).

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- 2) Project Description and Alternatives. To enable adequate review and comment on the proposed Project from the standpoint of the protection of fish, wildlife, and plants, CDFW recommends the following information be included in the DEIR.
- a. A complete discussion of the purpose and need for, and description of the proposed Project.
 - b. A range of feasible alternatives to the Project location to avoid or otherwise minimize direct and indirect impacts on sensitive biological resources and wildlife movement areas. CDFW recommends the City select Project designs and alternatives that would avoid or otherwise minimize direct and indirect impacts on biological resources. CDFW also recommends the City consider establishing appropriate setbacks from sensitive and special status biological resources. Setbacks should not be impacted by ground disturbance or hydrological changes from any future Project-related construction, activities, maintenance, and development. As a general rule, CDFW recommends reducing or clustering a development footprint to retain unobstructed spaces for vegetation and wildlife and provide connections for wildlife between properties and minimize obstacles to open space.
 - c. Project alternatives should be thoroughly evaluated, even if an alternative would impede, to some degree, the attainment of the Project objectives or would be more costly (CEQA Guidelines, § 15126.6). The DEIR shall include sufficient information about each alternative to allow meaningful evaluation, public participation, analysis, and comparison with the proposed Project (CEQA Guidelines, § 15126.6).
 - d. Where the Project may impact aquatic and riparian resources, CDFW recommends the City select Project designs and alternatives that would fully avoid impacts to such resources. CDFW also recommends an alternative that would not impede, alter, or otherwise modify existing surface flow, watercourse and meander, and water-dependent ecosystems and natural communities. Project designs should consider elevated crossings to avoid channelizing or narrowing of watercourses. Any modifications to a river, creek, or stream may cause or magnify upstream bank erosion, channel incision, and drop in water level, which may cause the watercourse to alter its course of flow.
- 3) Biological Baseline Assessment. An adequate biological resources assessment should provide a complete assessment and impact analysis of the flora and fauna within and adjacent to the Project site and where the Project may result in ground disturbance. The assessment and analysis should place emphasis on identifying endangered, threatened, rare, and sensitive species; regionally and locally unique species; and sensitive habitats. An impact analysis will aid in determining the Project's potential direct, indirect, and cumulative biological impacts, as well as specific mitigation or avoidance measures necessary to offset those impacts.

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CDFW also considers impacts to Species of Special Concern (SSC) a significant direct and cumulative adverse effect without implementing appropriate avoidance and/or mitigation measures. The DEIR should include the following information.

- a. Information on the regional setting that is critical to an assessment of environmental impacts, with special emphasis on resources that are rare or unique to the region (CEQA Guidelines, § 15125(c)). The DEIR should include measures to fully avoid and otherwise protect Sensitive Natural Communities. CDFW considers Sensitive Natural Communities as threatened habitats having both regional and local significance. Natural communities, alliances, and associations with a State-wide rarity ranking of S1, S2, and S3 should be considered sensitive and declining at the local and regional level. These ranks can be obtained by visiting the [Vegetation Classification and Mapping Program - Natural Communities webpage](#).
- b. A thorough, recent, floristic-based assessment of special status plants and natural communities following CDFW's [Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Sensitive Natural Communities](#). Botanical field surveys should be comprehensive over the entire Project site, including areas that will be directly or indirectly impacted by the Project. Adjoining properties should also be surveyed where direct or indirect Project effects could occur, such as those from fuel modification, herbicide application, invasive species, and altered hydrology. Botanical field surveys should be conducted in the field at the times of year when plants will be both evident and identifiable. Usually, this is during flowering or fruiting. Botanical field survey visits should be spaced throughout the growing season to accurately determine what plants exist in the Project site. This usually involves multiple visits to the Project site (e.g., in early, mid, and late season) to capture the floristic diversity at a level necessary to determine if special status plants are present.
- c. Floristic alliance- and/or association-based mapping and vegetation impact assessments conducted in the Project site and within adjacent areas. The [Manual of California Vegetation](#), second edition, (Sawyer, Keeler-Wolf, & Evens, 2009) should also be used to inform this mapping and assessment. Adjoining habitat areas should be included in this assessment where the Project's construction and activities could lead to direct or indirect impacts offsite.
- d. A complete and recent assessment of the biological resources associated with each habitat type in the Project site and within adjacent areas. A full literature review includes but is not limited to CNDDDB. The CNDDDB should be accessed to obtain current information on any previously reported sensitive species and habitat. An assessment should include a minimum nine-quadrangle search of the CNDDDB to determine a list of species potentially present in the Project site. A nine-quadrangle search should be provided in the Project's CEQA document

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City of Palmdale
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for adequate disclosure of the Project's potential impact on biological resources.

- e. A complete, recent, assessment of endangered, rare, or threatened species and other sensitive species within the Project site and adjacent areas, including SSC and California Fully Protected Species (Fish & G. Code, §§ 3511, 4700, 5050, and 5515). Species to be addressed should include all those which meet the CEQA definition of endangered, rare, or threatened species (CEQA Guidelines, § 15380). Seasonal variations in use of the Project site should also be addressed such as wintering, roosting, nesting, and foraging habitat. Focused species-specific surveys, conducted at the appropriate time of year and time of day when the sensitive species are active or otherwise identifiable, may be required if suitable habitat is present. See [CDFW's Survey and Monitoring Protocols and Guidelines](#) for established survey protocol. Acceptable species-specific survey procedures may be developed in consultation with CDFW and USFWS.
 - f. A recent wildlife and rare plant survey. Field verification for the presence or absence of sensitive species is necessary to provide a complete biological assessment for adequate CEQA review (CEQA Guidelines, § 15003(i)). CDFW generally considers biological field assessments for wildlife to be valid for a one-year period, and assessments for rare plants may be considered valid for a period of up to three years. Some aspects of the proposed Project may warrant periodic updated surveys for certain sensitive taxa, particularly if Project implementation build out could occur over a protracted time frame or in phases.
- 4) Direct and Indirect Impacts on Biological Resources. The DEIR should provide a thorough discussion of direct and indirect impacts expected to affect biological resources with specific measures to offset such impacts. The DEIR should address the following.
- a. A discussion of potential impacts from lighting, noise, temporary and permanent human activity, and exotic species, and identification of any mitigation measures. A discussion regarding Project-related indirect impacts on biological resources. These include resources in nearby public lands, open space, adjacent natural habitats, riparian ecosystems, and any designated and/or proposed or existing reserve lands (e.g., preserve lands associated with a Natural Community Conservation Plan (Fish & G. Code, § 2800 et. seq.)).
 - b. A discussion of both the short-term and long-term effects of the Project on species population distribution and concentration, as well as alterations of the ecosystem supporting those species impacted (CEQA Guidelines, § 15126.2(a)).
 - c. Impacts on, and maintenance of, wildlife corridor/movement areas, including access to undisturbed habitats in areas adjacent to the Project, should be fully

Brenda Magana
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analyzed and discussed in the DEIR.

- d. A discussion of post-Project fate of drainage patterns, surface flows, and soil erosion and/or sedimentation in streams and water bodies. The discussion should also address the potential water extraction activities and the potential resulting impacts on habitat supported by the groundwater. Measures to mitigate such impacts should be included.
 - e. An analysis of impacts from proposed changes to land use designations and zoning, and existing land use designation and zoning located nearby or adjacent to natural areas that may inadvertently contribute to wildlife-human interactions. A discussion of possible conflicts and mitigation measures to reduce these conflicts should be included in the DEIR.
- 5) Cumulative Impacts. Cumulative impacts on biological resources can result from collectively significant projects which are individually insignificant. The Project, when considered collectively with prior, concurrent, and probable future projects, may have a significant cumulative effects on biological resources. The Project may have the potential to substantially reduce the number or restrict the range of endangered, rare, or threatened species. Species that may be impacted by the Project include, but are not limited to, the biological resources described in this letter.

Accordingly, CDFW recommends the DEIR evaluate the Project's potential cumulative impacts on biological resources. The Project may have a "significant effect on the environment" if the possible effects of the Project are individually limited but cumulatively considerable. "Cumulatively considerable" means that the incremental effects of an individual 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 (Pub. Resources Code, § 21083(b)). The City's conclusions regarding the significance of the Project's cumulative impact should be justified and supported by evidence to make those conclusions. Specifically, if the City concludes that the Project would not result in cumulative impacts on biological resources, the City, "shall identify facts and analysis supporting the Lead Agency's conclusion that the cumulative impact is less than significant" (CEQA Guidelines section § 15130(a)(2)).

- 6) Mitigation Measures. Public agencies have a duty under CEQA to prevent significant, avoidable damage to the environment by requiring changes in a project through the use of feasible alternatives or mitigation measures (CEQA Guidelines, §§ 15002(a)(3), 15021). Pursuant to CEQA Guidelines section 15126.4, an environmental document shall describe feasible measures which could mitigate impacts below a significant level under CEQA. Mitigation measures must be feasible, effective, implementable, and fully enforceable/imposed by the Lead

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Agency through permit conditions, agreements, or other legally binding instruments (Pub. Resources Code, § 21081.6(b); CEQA Guidelines, § 15126.4).

- a. The DEIR should provide mitigation measures that are specific and detailed (i.e., responsible party, timing, specific actions, location) in order for a mitigation measure to be fully enforceable and implemented successfully via a mitigation monitoring and/or reporting program (Pub. Resources Code, § 21081.6; CEQA Guidelines, § 15097).
 - b. If a proposed mitigation measure would cause one or more significant effects, in addition to impacts caused by the proposed Project, the DEIR should include a discussion of the effects of proposed mitigation measures (CEQA Guidelines, § 15126.4(a)(1)). In that regard, the DEIR should provide an adequate, complete, and detailed disclosure about the Project's proposed mitigation measure(s). Adequate disclosure is necessary so CDFW may assess the potential impacts of proposed mitigation measures.
- 7) Compensatory Mitigation. The DEIR should include compensatory mitigation measures for the Project's significant impacts (direct and/or through habitat modification) to sensitive and special status plants, animals, and habitats. Mitigation measures should emphasize avoidance and minimization of Project-related impacts. For unavoidable impacts, on-site habitat restoration or enhancement should be discussed in detail. If on-site mitigation is not feasible or would not be biologically viable and therefore inadequate to mitigate the loss of biological functions and values, off-site mitigation through habitat creation and/or acquisition and preservation in perpetuity should be addressed. Areas proposed as mitigation lands should be protected in perpetuity with a conservation easement and financial assurance and dedicated to a qualified entity for long-term management and monitoring.
- 8) Long-term Management of Mitigation Lands. For proposed mitigation lands, the DEIR should include measures to protect the targeted habitat values in perpetuity. The mitigation should offset Project-induced qualitative and quantitative losses of biological resources. Issues that should be addressed include (but are not limited to) restrictions on access, proposed land dedications, monitoring and management programs, control of illegal dumping, water pollution, and increased human intrusion. An appropriate endowment should be set aside to provide for long-term management of mitigation lands.
- 9) Translocation/Salvage of Plants and Animal Species. Translocation and transplantation is the process of removing plants and wildlife from one location and permanently moving it to a new location. CDFW generally does not support the use of translocation or transplantation as the primary mitigation strategy for unavoidable impacts to endangered, rare, or threatened plants and animals. These efforts are experimental, and the outcome is unreliable. CDFW has found that permanent

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preservation and management of habitat capable of supporting these species is often a more effective long-term strategy for conserving plants and animals and their habitats.

- 10) Scientific Collecting Permit. A Scientific Collecting Permit would be necessary if there is a plan to capture and relocate wildlife. Pursuant to the California Code of Regulations, title 14, section 650, biologist(s) must obtain appropriate handling permits to capture, temporarily possess, and relocated wildlife to avoid harm or mortality in connection with Project-related activities. CDFW has the authority to issue permits for the take or possession of wildlife, including mammals; birds, nests, and eggs; reptiles, amphibians, fish, plants; and invertebrates (Fish & G. Code, §§ 1002, 1002.5, 1003). A Scientific Collecting Permit is required to monitor project impacts on wildlife resources, as required by environmental documents, permits, or other legal authorizations; and, to capture, temporarily possess, and relocate wildlife to avoid harm or mortality in connection with otherwise lawful activities (Cal. Code Regs., tit. 14, § 650). For more information, please see CDFW's [Scientific Collecting Permit webpage](#).
- 11) Wetland Resources. CDFW, as described in Fish and Game Code section 703(a), is guided by the [Fish and Game Commission's \(Commission\) policies](#). Through its Wetlands Resources policy, the Commission "...seek[s] to provide for the protection, preservation, restoration, enhancement, and expansion of wetland habitat in California" (California Fish and Game Commission, 2005). It is the policy of the Commission to strongly discourage development in or conversion of wetlands. It opposes, consistent with its legal authority, any development or conversion that would result in a reduction of wetland acreage or wetland habitat values. To that end, the Commission opposes wetland development proposals unless, at a minimum, project mitigation assures there will be 'no net loss' of either wetland habitat values or acreage. The Commission strongly prefers mitigation which would achieve expansion of wetland acreage and enhancement of wetland habitat values."
 - a. The Wetlands Resources policy provides a framework for maintaining wetland resources and establishes mitigation guidance. CDFW encourages avoidance of wetland resources as a primary mitigation measure and discourages the development or type conversion of wetlands to uplands. CDFW encourages activities that would avoid the reduction of wetland acreage, function, or habitat values. Once avoidance and minimization measures have been exhausted, a project should include mitigation measures to assure a "no net loss" of either wetland habitat values, or acreage, for unavoidable impacts to wetland resources. Conversions include, but are not limited to, conversion to subsurface drains, placement of fill or building of structures within the wetland, and channelization or removal of materials from the streambed. All wetlands and watercourses, whether ephemeral, intermittent, or perennial, should be retained and provided with substantial setbacks, which preserve the riparian and aquatic

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values and functions benefiting local and transient wildlife populations. CDFW recommends mitigation measures to compensate for unavoidable impacts be included in the DEIR and these measures should compensate for the loss of function and value.

- b. The Fish and Game Commission's Water policy guides CDFW on the quantity and quality of the waters of this State that should be apportioned and maintained respectively so as to produce and sustain maximum numbers of fish and wildlife; to provide maximum protection and enhancement of fish and wildlife and their habitat; encourage and support programs to maintain or restore a high quality of the waters of this State; prevent the degradation thereof caused by pollution and contamination; and, endeavor to keep as much water as possible open and accessible to the public for the use and enjoyment of fish and wildlife. CDFW recommends avoidance of water practices and structures that use excessive amounts of water, and minimization of impacts that negatively affect water quality, to the extent feasible (Fish & G. Code, § 5650).
- 12) Use of Native Plants and Trees. CDFW recommends the City require the Project Applicant to provide a native plant palette for the Project. The Project's landscaping plan should be disclosed and evaluated in the DEIR for potential impacts on biological resources such as natural communities adjacent to the Project site (e.g., introducing non-native, invasive species). CDFW supports the use of native plants for the Project especially considering the Project's location adjacent to protected open space and natural areas. CDFW strongly recommends avoiding non-native, invasive species for landscaping and restoration, particularly any species listed as 'Moderate' or 'High' by the [California Invasive Plant Council](#). CDFW supports the use of native species found in naturally occurring plant communities within or adjacent to the Project site. In addition, CDFW supports planting species of trees, such as oaks (*Quercus* genus), and understory vegetation (e.g., ground cover, subshrubs, and shrubs) that create habitat and provide a food source for birds. CDFW recommends retaining any standing, dead, or dying tree (snags) where possible because snags provide perching and nesting habitat for birds and raptors. Finally, CDFW supports planting species of vegetation with high insect and pollinator value.

ENVIRONMENTAL DATA

CEQA requires that information developed in environmental impact reports and negative declarations be incorporated into a database which may be used to make subsequent or supplemental environmental determinations. (Pub. Resources Code, § 21003, subd. (e).) Accordingly, please report any special status species and natural communities detected during Project surveys to CNDDDB. The [CNDDDB website](#) provides directions regarding the types of information that should be reported and allows on-line submittal of field survey forms (CDFW 2024f).

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In addition, information on special status native plant populations and sensitive natural communities, should be submitted to CDFW's Vegetation Classification and Mapping Program using the [Combined Rapid Assessment and Revele Form](#) (CDFW 2024g).

The City should ensure data collected for the preparation of the DEIR is properly submitted.


FILING FEES

The project, as proposed, could have an impact on fish and/or wildlife, and assessment of filing fees is necessary. Fees are payable upon filing of the Notice of Determination by the Lead Agency and serve to help defray the cost of environmental review by CDFW. Payment of the fee is required in order for the underlying project approval to be operative, vested, and final (Cal. Code Regs, tit. 14, § 753.5; Fish & Game Code, § 711.4; Pub. Resources Code, § 21089).

CONCLUSION

We appreciate the opportunity to comment on the project to assist the City in adequately analyzing and minimizing/mitigating impacts to biological resources. CDFW requests an opportunity to review and comment on any response that the City has to our comments and to receive notification of any forthcoming hearing date(s) for the project. If you have any questions or comments regarding this letter, please contact Andrew Valand, Environmental Scientist at Andrew.Valand@wildlife.ca.gov or (562) 292-6821.

Sincerely,

DocuSigned by:
 for
B12F986CDBBD4AA...

Victoria Tang

Environmental Program Manager
South Coast Region

cc: California Department of Fish and Wildlife
Randy Rodriguez
Jennifer Turner
Jennifer Ludovissy
Cindy Hailey
Andrew Aitken
Frederic Rieman
Steve Gibson

Scott Morgan (State Clearinghouse)

Brenda Magana
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From: [Brenda Magana](#)
To: [Doug Fenn](#)
Cc: [Kris Pinero](#)
Subject: FW: Notice of Preparation of a Draft Environmental Impact Report and Scoping Meeting-Quail Valley
Date: Thursday, October 17, 2024 12:23:39 PM
Attachments: [image002.png](#)

--

Brenda Magaña
Planning Manager



CITY OF PALMDALE

Economic and Community Development | Planning
38250 Sierra Hwy.
Palmdale, CA 93550

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661/267-5200 Main
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www.cityofpalmdaleca.gov

Hours: Monday-Thursday, 7:30 am-6 pm. Closed Friday.

From: Evelyn Ballesteros <eballesteros@dpw.lacounty.gov>
Sent: Thursday, October 17, 2024 11:03 AM
To: Brenda Magana <bmagana@cityofpalmdale.org>
Cc: Stacey Katsandonis <SKatsandonis@dpw.lacounty.gov>; Joel Martinez <JoMartinez@dpw.lacounty.gov>; Rasta Naderi <rnaderi@dpw.lacounty.gov>; Aracely Jaramillo <AJaramillo@dpw.lacounty.gov>
Subject: FW: Notice of Preparation of a Draft Environmental Impact Report and Scoping Meeting-Quail Valley

CAUTION: This email originated from outside of the organization.

Good morning Brenda,
The Los Angeles County Waterworks Districts received a Notice of Preparation (NOP) of a Draft Environmental Impact Report (DEIR) for the subject project. The following comments are provided for your consideration:

Annexation

Our data indicates the project is located outside the boundaries of the District (LACWD 40). The DEIR should address any impacts associated with annexing the project site and adjacent areas into the District's (LACWD 40) water service area. Water service applications and processing for the TTM will be per our standard procedures, which may include Annexation requirements. Annexations are

processed through LAFCO.

Water Supply

Considering the unpredictable nature of water supply and potential challenges during periods of drought, the DEIR should include discussion of water supply sources and availability. Project demand and impacts to water supply shall be evaluated.

Water Infrastructure and Service Delivery

The District anticipates needing significant improvements such as the construction of a water storage tank, pump station, transmission mains, groundwater well, and distribution water mains at the developer's expense, to supply domestic demand and meet the Fire Department's fire flow requirements. The DEIR should address impacts of any new water system infrastructure to be constructed as a condition of water service.

The project owner should file a water service application on EPIC LA (<https://epicla.lacounty.gov/SelfService/Selfservice%23/home>) to obtain a plan for service, including water system improvement requirements, for the proposed development.

The DEIR should mention that the project water improvement infrastructure requirements have not been finalized when addressing potential water infrastructure.

We look forward to receipt of the DEIR, for review and comment. If you have any questions, please let us know.

Thank you,
Evelyn Ballesteros
Civil Engineer
Los Angeles County Public Works
(626)300-4681

Help us serve you better: Your feedback is important. To take our Development Services Satisfaction survey, please click [here](#).

From: Kathy Inman <kinman@cityofpalmdale.org>

Sent: Thursday, September 19, 2024 5:16 PM

To: Keri Smith <ksmith@cityofpalmdale.org>; Hamed Hashemian <hhashemian@cityofpalmdale.org>; Aracely Lasso <ALASSO@dpw.lacounty.gov>; Evelyn Ballesteros <eballesteros@dpw.lacounty.gov>; Caleb Oakes <COakes@dpw.lacounty.gov>; Walter Collins <Wally.Collins@fire.lacounty.gov>; Patricia Hachiya <phachiya@planning.lacounty.gov>; Mark Herwick <mherwick@planning.lacounty.gov>; Shirley Wang <shirlywang@lacsdsd.org>; Hill, Jason R. <jr2hill@lasd.org>; Barbara Lods <blods@avaqmd.ca.gov>; Sandra Sarabia <ssarabia@avaqmd.ca.gov>; AVTA <gromo@avta.com>; Karen Conrad <kconrad@avta.com>; jeff@creedla.com; boardbusinesslvtc@gmail.com; rbenedetti@avc.edu; Adam McCalla <amccalla@avsta.com>; Monica Garcia <mgarcia@avhdsd.org>; Scott Fish <sfish@avhdsd.org>; Kevin Vensko <kvensko@avhdsd.org>; Gratzella Wolf <glwolf@palmdalesd.org>; avrcd@carcd.org; Tang, Victoria@Wildlife

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OHP, CALSHPO@Parks <calshpo.ohp@parks.ca.gov>; state.clearinghouse@opr.ca.gov;
AT&T-Inquiries - Forkert Engineering & Surveying, Inc (JoeF@forkertengineering.com)
<JoeF@forkertengineering.com>; Dara Frutos <dara.frutos@sce.com>; Stephanie Jones
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Layne Fajeau <layne@lozeaudrury.com>; Madeline Dawson <madeline@lozeaudrury.com>;
Richard Drury <richard@lozeaudrury.com>
Cc: Brenda Magana <bmagana@cityofpalmdale.org>; Kris Pinero <kris@rcellc.us>
Subject: Notice of Preparation of a Draft Environmental Impact Report and Scoping Meeting

CAUTION: External Email. Proceed Responsibly.

Attached, please find the NOP for the Quail Valley project (TTM 65813 and PD 18-001) in the City of Palmdale. The Notice of Preparation Review Period is September 19 through October 18, 2024, with the scoping meeting scheduled for October 3 at 5:00 pm. Please contact Planning Manager Brenda Magaña with any comments or questions you may have.

Thank you,

--

Kathy Inman

Senior Administrative Assistant



Economic and Community Development | Planning

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SANITATION DISTRICTS**
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Robert C. Ferrante

Chief Engineer and General Manager

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(562) 699-7411 • www.lacsd.org

September 23, 2024

Ref. DOC 7326632

VIA EMAIL bmagana@cityofpalmdale.org

Ms. Brenda Magaña, Planning Manager
City of Palmdale – Department of Economic and Community Development
38250 Sierra Highway
Palmdale, CA 93550
Dear Ms. Magaña:

Second Response to Quail Valley Project – Tentative Tract Map 65813

The Los Angeles County Sanitation Districts (Districts) received a Notice of Preparation (NOP) of a Draft Environmental Impact Report (DEIR) for the subject project on September 19, 2024. Previous comments submitted by the Districts in correspondence dated November 21, 2018 (copy enclosed), still apply to the subject project with the following updated information:

1. The project area is outside the jurisdictional boundaries of the Districts and will require annexation into District No. 20 before sewerage service can be provided to the proposed development. A copy of the Districts' Annexation Information and Processing Fee sheets is available on our website at [Annexation Program](#). For more specific information regarding the annexation procedure and fees, please contact Ms. Shirley Wang at shirlywang@lacsd.org or (562) 908-4288, extension 2708.
2. The Districts' 18-inch diameter Elizabeth Lake Road Extension Trunk Sewer, located in Parkwood Drive at the Groves has a capacity of 4.3 million gallons per day (mgd) and conveyed a peak flow of 1.3 mgd when last measured in 2020.
3. The wastewater generated by the proposed project will be treated at the Palmdale Water Reclamation Plant, which has a capacity of 12 mgd and currently processes an average recycled flow of 8.1 mgd.
4. All other information concerning Districts' facilities and sewerage service contained in the document is current.

If you have any questions, please contact the undersigned at (562) 908-4288, extension 2742, or phorsley@lacsd.org.

Very truly yours,

Patricia Horsley

Patricia Horsley
Environmental Planner
Facilities Planning Department

PLH:plh

Enclosure

cc: S. Wang

DOC 7327172.D2099



COUNTY SANITATION DISTRICTS OF LOS ANGELES COUNTY

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Telephone: (562) 699-7411, FAX: (562) 699-5422
www.lacsd.org

GRACE ROBINSON HYDE
Chief Engineer and General Manager

November 21, 2018

Ref. Doc. No.: 4797838

Ms. Megan Taggart
Senior Planner
Planning Division
City of Palmdale
38250 Sierra Highway
Palmdale, CA 93550

Dear Ms. Taggart:

NOP Response to the Quail Valley Planned Development

The Sanitation Districts of Los Angeles County (Districts) received a Notice of Preparation of a Draft Environmental Impact Report for the subject project on October 29, 2018. We offer the following comments:

XVII. UTILITIES AND SERVICE SYSTEMS

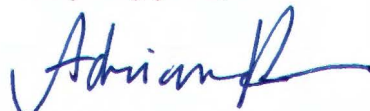
1. Response a), *page 57* – The information in this response states that the project will generate 189,800 gallons per day (gpd); however, the second paragraph of Response b) states, “fifty-four of the proposed 730 residential units will be on a septic system and thereby not generate sewage flow,” essentially bringing the impact to the sewer system down to 676 residential units. Based on the Districts’ average wastewater generation factors, the expected average wastewater flow from the 676 residential units that will connect to the sewer system will be 175,760 gpd.
2. Response a), *page 57* – Although wastewater generated by the City of Palmdale is treated at either the Palmdale Water Reclamation Plant (WRP) or the Lancaster WRP, the wastewater generated specifically by the proposed project will be treated at the Palmdale WRP. The Palmdale WRP has a capacity of 12 million gallons per day (mgd) and currently produces an average recycled water flow of 8 mgd.
3. Response a), *page 57* – As indicated in the information, the project area is outside the jurisdictional boundaries of the Districts and will require annexation into District No. 20 before sewerage service can be provided to the proposed development. For a copy of the Districts’ Annexation Information and Processing Fee sheets, go to www.lacsd.org, Wastewater & Sewer Systems, Will Serve Program, and click on the appropriate link.
4. Response b), *page 57* – Development of the 676 residential units will increase the quantity of wastewater entering the sewer system. The Districts are empowered by the California Health and Safety Code to charge a fee for the privilege of connecting (directly or indirectly) to the Districts’

Sewerage System for increasing the strength or quantity of wastewater discharged from connected facilities. This connection fee is a capital facilities fee that is imposed in an amount sufficient to construct an incremental expansion of the Sewerage System to accommodate the proposed project. Payment of a connection fee will be required before a permit to connect to the sewer is issued. In determining the impact to the Sewerage System and applicable connection fees, the Districts' Chief Engineer and General Manager will determine the user category (e.g. Condominium, Single Family home, etc.) that best represents the actual or anticipated use of the parcel or facilities on the parcel. For more information and a copy of the Connection Fee Information Sheet, go to www.lacsd.org, Wastewater & Sewer Systems, click on Will Serve Program, and search for the appropriate link.

5. Response b) continued, *page 58* – The sewer is proposed to connect to the proposed 15-inch collector sewer in Tract No. 54328 where it will be further conveyed to the existing City of Palmdale Sewer stub-out in Cherry Blossom Street. According to the Districts' records, the wastewater flow from this sewer line is conveyed to the Districts' Elizabeth Lake Road Extension Trunk Sewer, located in Parkwood Drive at the Groves. The Districts' 18-inch diameter trunk sewer has a capacity of 4.3 mgd and conveyed a peak flow of 0.3 mgd when last measured in 2017. Because there are other proposed developments in the area, the availability of trunk sewer capacity should be verified as the project advances. Availability of sewer capacity depends upon project size and timing of connection to the sewerage system. Please submit a copy of the project's build-out schedule to the undersigned to ensure the project is considered when planning future sewerage system relief and replacement projects.
6. All other information concerning Districts' facilities and sewerage service contained in the document is current.

If you have any questions, please contact the undersigned at (562) 908-4288, extension 2717.

Very truly yours,



Adriana Raza
Customer Service Specialist
Facilities Planning Department

AR:ar

cc: D. Curry
A. Schmidt
A. Howard