Draft Initial Study
Falcon Glen Project

LEAD AGENCY:

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1 Introduction

1.1 Introduction

The Falcon Glen Planned Development Project (herein referenced as the "project") is proposed for residential development. Improvements to the site include constructing 708 residential lots, a community recreation center, multiple parks totaling 7.2 acres, and multiple detention basins totaling 12.5 acres, as well as roads, sidewalks, and trails. The 162.45-acre project site is located along the north side of Avenue S and extends from Avenue S to the California Aqueduct along the northern boundary. The project site is located in unincorporated Los Angeles County within the City of Palmdale's Sphere of Influence and immediately adjacent to the City Limit boundary. The project site is situated at the southern foothills of Antelope Valley and is currently undeveloped.

Following a preliminary review of the project application materials, the City of Palmdale (City) has determined that the project is subject to the California Environmental Quality Act (CEQA) regulations and guidelines. This Draft Initial Study addresses the direct, indirect, and cumulative environmental impacts associated with implementation of the project.

1.2 Statutory Authority and Requirements

In accordance with CEQA (Public Resources Code Sections 21000-21189.70.10) and pursuant to CEQA Guidelines Section 15063, the City of Palmdale, acting in the capacity of Lead Agency under CEQA, shall prepare an Initial Study to determine if the project may have a significant effect on the environment.

The environmental documentation is intended as an informational document to provide an environmental basis for subsequent discretionary actions upon the project. The resulting documentation is not a policy document, and its approval and/or certification neither presupposes nor mandates any actions on the part of those agencies from whom permits and/or other discretionary approvals would be required.

The environmental documentation is subject to a public review period. During this public review period, written comments on the document related to environmental issues should be addressed to the City. Following the review of any written comments received, the City will consider these comments as a part of the project's environmental review and include them with the Initial Study documentation for consideration by the City's decision-makers.

1.3 Purpose

CEQA Guidelines Section 15063 identifies the purpose and specific disclosure requirements for inclusion in an Initial Study. The purposes of an Initial Study are:

1. Provide the Lead Agency with information to decide whether to prepare an Environmental Impact Report (EIR) or a Negative Declaration.
2. Enable an applicant or Lead Agency to modify a project, mitigating adverse impacts before an EIR is prepared, thereby enabling the project to qualify for a Negative Declaration.
3. Assist in the preparation of an EIR, if one is required, by:
    a. Focusing the EIR on the effects determined to be significant,
    b. Identifying the effects determined not to be significant,
    c. Explaining the reasons for determining that potentially significant effects would not be significant and
    d. Identifying whether a program EIR, tiering, or another appropriate process can be used for analysis of the project's environmental effects.

4. Facilitate environmental assessment early in the design of a project.
5. Provide documentation of the factual basis for the finding in a Negative Declaration that a project will not have a significant effect on the environment.
6. Eliminate unnecessary EIRs.
7. Determine whether a previously prepared EIR could be used with the project.

Pursuant to those requirements, the contents of an Initial Study shall include:

1. The description of the project, including the location of the project.
2. An identification of the environmental setting.
3. Identifying environmental effects using a checklist, matrix, or other method, if entries on a checklist or other form are briefly explained to indicate some evidence to support the entries. The brief explanation may be either through a narrative or a reference to another information source such as an attached map, photographs, or an earlier EIR or negative declaration. A reference to another document should include, where appropriate, a citation to the page or pages where the information is found.
4. Discuss ways to mitigate the significant effects identified, if any.
5. Examine whether the project would be consistent with existing zoning, plans, and other applicable land use controls.
6. The name of the person or persons who prepared or participated in the Initial Study.

1.4 Incorporation by Reference

The following documents were utilized during the preparation of this Initial Study and are incorporated into this document by reference (CEQA Guidelines Section 15150). The documents are available for review at the City of Palmdale, Community Development Department – Planning Division located at 38300 Sierra Highway, Palmdale, California 93550.

City of Palmdale General Plan (effective October 22, 2022, amended on March 15, 2023). In late 2018, the City of Palmdale initiated a multi-year effort to update its General Plan and conduct the environmental review in accordance with CEQA. The resulting "Envision Palmdale 2045" document (General Plan) provides an update to the last comprehensive update of the City's General Plan, which the City Council adopted on January 25, 1993. The General Plan presents the community's vision for Palmdale for the next two decades and consists of the following elements: Land Use and Community Design; Circulation and Mobility; Economic Development; Military Compatibility; Equitable and Healthy Communities; Parks, Recreation and Open Space; Conservation; Public Facilities, Services and Infrastructure; Safety; Sustainability, Climate Action and Resilience; Air Quality; and Noise.

City of Palmdale 2045 General Plan Update Environmental Impact Report (September 21, 2022). The City of Palmdale 2045 General Plan Update EIR (General Plan EIR) evaluates the impacts associated with the General Plan. The General Plan EIR evaluates potential environmental impacts and identifies mitigation measures to reduce or avoid possible environmental damage. The EIR determined that the implementation of the General Plan would result in significant and unavoidable impacts on air quality and utilities and service systems (water supply and wastewater capacity).

Palmdale Municipal Code (Current through Ordinance 1610 and legislation passed through May 3, 2023). The Palmdale Municipal Code (PMC) provides regulations for government administrative operations, construction, development, infrastructure, public safety, and business operations within the City. The City recently updated its Zoning Ordinance and zoning map to be consistent with newly adopted General Plan. The Zoning Ordinance (Title 17 of the PMC) is intended to serve the public health, safety, comfort,

convenience, and general welfare by establishing land use districts designed to obtain the physical, environmental, economic, and social advantages resulting from planned use of land in accordance with the General Plan. The Zoning Ordinance provides a set of regulations that control the land uses, the density of population, the uses and locations of structures, the height of buildings and structures, the ground coverage and open spaces around structures, the appearance of specific uses and structures, the areas and dimensions of sites, the location, size and illumination of signs and displays, requirements for off-street parking and off-street loading facilities, provisions for street dedications and improvements, standards for water efficient landscaping and procedures for administering and amending such regulations and requirements.

2 Project Description

2.1 Project Location

The City is located in the northern portion of the County of Los Angeles in the High Desert region, approximately 60 miles north/northeast of downtown Los Angeles; refer to **Exhibit 1, Regional Vicinity**. The City encompasses approximately 95 square miles and has an adopted Sphere of Influence of 174 square miles. Palmdale is surrounded by the City of Lancaster and the unincorporated community of Quartz Hill to the north; unincorporated communities of Lake Los Angeles and Littlerock to the east; the unincorporated community of Acton to the south; and the unincorporated community of Leona Valley to the west.

The proposed project is located on approximately 162.45 acres (Assessor's Parcel Numbers [APNs] 3004-014-001, 3004-014-004, 3004-014-005, 3004-014-008, 3004-014-009, 3004-014-012, 3004-014-018, and 3004-014-023 through 3004-014-031). The project site is located in unincorporated Los Angeles County within the City of Palmdale's Sphere of Influence[1] and immediately adjacent to the City Limit boundary; refer to **Exhibit 2, Site Vicinity**. The project site is located within Antelope Valley at the western end of the Mojave Desert, north of the San Gabriel Mountains and south of the San Andreas Rift Zone. Regional access to the project site is provided via State Route 14 (SR- 14) and State Route 138 (SR-138). Local access to the project site is provided via West Avenue S.

Anaverde Nuevo Specific Plan

The project is located immediately east of the existing Anaverde Nuevo Specific Plan (ANSP). Planning Area 1 within the ANSP is directly adjacent to the project site and would provide multiple circulation points to the project site via roads and trails. These circulation points create opportunities for connectivity from one project to another and the regional recreational facilities in the ANSP area. Cherry Blossom Street and Tangerine Street, which originate in the ANSP, would continue through the project site. Cherry Blossom Street would act as the primary collector street through the project site, eventually connecting to Avenue S. As described below, these two streets provide circulation to The Groves, the main loop collector street running through the ANSP area.

Sphere of Influence and Annexation

Under the proposed project, the entire 162.45-acre project site will be annexed from unincorporated Los Angeles County into the City of Palmdale and developed under the jurisdiction of Palmdale pursuant to its General Plan, zoning, and development standards. The Annexation Application for annexation into the City of Palmdale would be filed after the project is entitled as required by the Local Agency Formation Commission (LAFCO) for the County of Los Angeles. The City's past pre-zoning of the project area currently remains applicable to the project area, as shown in the City's official Zoning Map (June 29, 2023).

2.2 Environmental Setting

The project site is located along the north side of Avenue S. It extends from Avenue S to the California Aqueduct along the northern boundary and is in the City of Palmdale in Los Angeles County. The project site is in the southern foothills of Antelope Valley and is currently undeveloped. The project site is generally

[1] A Sphere of Influence (SOI), as defined pursuant to Government Code Section 56425 et seq., is a plan for the probable ultimate physical boundaries and service area of a local governmental agency, as determined by the applicable Local Agency Formation Commission. The establishment of an SOI boundary is necessary to determine which governmental agencies can provide services in the most efficient way to the people and property in any given area, promote orderly land use and service, and protect agriculture and open space.

characteristic of a disturbed California juniper habitat. Onsite topography consists of low rolling hills bisected by several north-to-south drainage features (California Aqueduct culverts) and tributaries to Anaverde Creek to the north. Elevations on the project site range from 2,950 feet (899 meters) above mean sea level (AMSL) in the northwest to 3,100 feet (944 meters) AMSL in the southwest.

The site is currently vacant with no habitable structures and is disturbed by various [unauthorized] dirt roadways traversing the property. Several onsite utilities and/or access easements affect the property. The eastern portion of the project site includes the remnants of an old homestead foundation. Evidence of illegal refuse dumping and onsite campfires is present throughout the project site. The California Aqueduct, a regional water canal, forms the northern boundary of the property; refer to **Exhibit 2.**

2.2.1 General Plan Land Use and Zoning

The City has pre-designated and pre-zoned 152.37 acres of the project site as Single Family Residential 2 (SFR 2)[2,3]. The easternmost 17.16 acres of the project site have been pre-designated and pre-zoned as Low Density Residential (LDR). Based on the City's General Plan Land Use Designations Map (Figure 5.5 of the General Plan Land Use and Community Design Element, September 21, 2022) and the Zoning Map (June 29, 2023), the project proposes the development of 708 residential units, of which 386 of the 708 units are proposed to have land use and zoning designations of Single Family Residential 1 (SFR 1), Single Family Residential 2 (SFR 2), and Single Family Residential 3 (SFR 3), and 322 of the 708 units are proposed to have land use and zoning designations of Residential Neighborhood 1 (RN 1) and Residential Neighborhood 2 (RN 2). Therefore, since the proposed land use and zoning includes designations other than the existing designations, the project would require a General Plan Amendment and Zone Change as part of the project's entitlements.

Table 1, City of Palmdale Land Use and Zoning Designation Descriptions, describes the land use and zoning designations that are applicable to the proposed project as provided in the General Plan Land Use and Community Design Element and PMC Title 17, *Zoning*.

Table 1: City of Palmdale Land Use and Zoning Designation Descriptions

Designation	Description and Allowed Uses	Density/Intensity
Land Use		
Single Family Residential 1 (SFR 1)	Detached single-family dwellings in a semi-rural environment. Animal keeping allowed.	Up to 2 units per acre
Single Family Residential 2 (SFR 2)	Single-family dwellings located generally between the valley floor and steeper hillside areas.	Up to 4.4 units per acre
Single Family Residential 3 (SFR 3)	Detached single-family dwellings on standard 7,000 square foot minimum lot size are typical.	Up to 6 units per acre
Residential Neighborhood 1 (RN 1)	Intended for a low-density mix of attached and detached residential dwelling units.	Up to 10 units per acre

[2] City of Palmdale General Plan, Land Use Element, Policy L1.2.4: Encourage Los County to apply City of Palmdale land use policies and standards to development proposals within the City's sphere of influence.

[3] The project site is identified within the City of Palmdale's General Plan, Land Use Element, Exhibit LU-2 Existing City Boundary and Proposed Planning Area, as well as the City's Boundary and Sphere of Influence Map. https://www.cityofpalmdale.org/DocumentCenter/View/501/City-Boundary-and-Sphere-of-Influence-PDF

Designation	Description and Allowed Uses	Density/Intensity
Residential Neighborhood 2 (RN 2)	Intended for grouped housing such as townhouses, condominiums, apartments with on-site recreation, and open space.	10 to 20 units per acre
Zoning		
Single Family Residential 1 (SFR 1)	This zone is intended for detached single-family dwellings in a suburban/semi-rural environment, at a maximum of two units per acre. The SFR1 zone is appropriate for outlying valley areas where large lot subdivisions are desired. Parcel sizes are around 20,000 square feet. These areas are mostly along the edges of developed suburban residential areas, in lower hillside areas where inclines are present, but topography lacks significant slope constraints. This zone implements the Single-Family Residential 1 General Plan land use designation.	Up to 2 dwelling units per acre
Single Family Residential 2 (SFR 2)	This zone is intended for detached single-family dwellings in a suburban environment, at a maximum of 4.4 dwelling units per acre. The SFR2 zone is intended for the areas between the valley floor and steeper hillside areas (having less than 10 percent slope). Parcel sizes range from 10,000 to 15,000 square feet. This zone is located mostly along the edges of developed suburban residential areas. This zone implements the Single-Family Residential 2 General Plan land use designation.	Up to 4.4 dwelling units per acre
Single Family Residential 3 (SFR 3)	This zone is intended for detached single-family subdivisions containing the City's standard 7,000-square-foot minimum lot size (at a maximum of six dwelling units per acre). The SFR3 zone is appropriate in areas with minimal topography, and these places serve as a lower intensity, family-living environment but are still well connected to surrounding neighborhoods and retail areas. These areas constitute most of the City's developed residential neighborhoods. This zone implements the Single-Family Residential 3 General Plan land use designation.	Up to 6 dwelling units per acre
Residential Neighborhood 1 (RN 1)	This zone is intended for a low-density mix of attached and detached residential dwelling units, allowing a maximum of 10 dwelling units per acre. The RN1 zone is appropriate in residential areas within a short distance of employment and retail. The RN1 zone is reserved for areas that are or will be served by adequate infrastructure and services needed to support this level of development. This zone implements the	Up to 10 dwelling units per acre

Designation	Description and Allowed Uses	Density/Intensity
	Residential Neighborhood 1 General Plan land use designation.	
Residential Neighborhood 2 (RN 2)	This zone is intended for grouped housing such as small-lot single-family residential, townhouses, condominiums, and apartments with on-site recreation and open space allowing a density range of 10 to 20 dwelling units per acre. The RN2 zone is appropriate in existing residential neighborhood areas or planned developments within a short distance of Village Centers. The RN2 zone is reserved for areas which are or will be served by adequate infrastructure and services needed to support this level of development. This zone implements the Residential Neighborhood 2 General Plan land use designation.	Up to 20 dwelling units per acre

2.2.2 Surrounding Land Use Characteristics

Table 2, Surrounding Land Use and Zoning, shows the existing land use, general plan land use designations and zoning designations surrounding the project site.

Table 2: Surrounding Land Use and Zoning

	Existing Land Use	General Plan Land Use	Zoning
North	California Aqueduct and City of Palmdale. Vacant land and Antelope Valley Recycling and Disposal Facility further north.	Industrial	Water Body Aqueduct and Light Industrial
East	California Aqueduct. Residential developments further east. Areas to the east are within the Los Angeles County Community of Antelope Valley.	Low Density Residential	Low Density Residential
South	Vacant land	Single Family Residential 1 and Low-Density Residential	Single Family Residential 1 and Low-Density Residential
West	Residential land uses (Anaverde Nuevo Specific Plan).	Specific Plan	Specific Plan

2.3 Project Characteristics

The proposed project includes the following components: development consisting of 708 residential lots, including 386 single-family detached residential units and 322 single-family medium-density residential units located within ten planning areas, as well as roads, sidewalks, and trails; the annexation of the project site from unincorporated Los Angeles County into the City of Palmdale; and the related project components and entitlements further described herein including a General Plan Amendment and Zone Change. The project also includes a community recreation center, multiple parks totaling 7.2 acres, and multiple detention basins totaling 12.5 acres; refer to **Exhibit 3, Conceptual Site Plan**.

2.3.1 Planning Areas

The development includes ten (10) planning areas including site improvements consisting of grading, roadway improvements/right-of-way for interior and existing streets, open space, sidewalks, landscaping, walls/fences, street lighting, and infrastructure improvements (water, sewer, storm drain facilities, electrical and gas). According to the Conceptual Site Plan, the proposed development is designated within each of the ten planning areas. As shown in **Table 3, Proposed Residential Land Use Planning Area Summary**, and in **Exhibit 3, Conceptual Site Plan,** approximately 108.2 acres are designated for the proposed residential land uses.

Table 3: Proposed Residential Land Use Planning Area Summary

Planning Area	Land Use Description/Lot Size	Number of Units	Acreage
1	Single Family Residential (7,000 SF)	59	12.6
2	Single Family Residential (7,000 SF)	55	16.7
3	Single Family Residential (6,000 SF)	64	10.8
4	Single Family Residential (5,000 SF)	50	11.2
5	Single Family Residential (5,000 SF)	45	9.9
6	Single Family Residential (4,000 SF)	79	7.9
7	Single Family Residential (8,000 SF)	34	9.6
8	Medium Density Residential (12/acre)	108	8.7
9	Medium Density Residential (10/acre)	124	12.6
10	Medium Density Residential (11/acre)	90	8.2
	Residential Acreage Total	708	108.2

Source: D&D Engineering, Inc., Tentative Tract Map No. 54328 Site Plan, February 2024, revised October 9, 2024.

2.3.2 Site Access

The project would provide a total of five vehicular access points. Three primary access points would be located off, or along, Avenue S. Two of these points would head north from Avenue S and come upon the two roundabouts within the site, which would be located on the main collector street, Cherry Blossom Street, through the site. Access to Planning Area 7 would be off Y Street at Avenue S.

Cherry Blossom Street, the main collector street, would be able to be reached by entering the community off Y Street, which is the easternmost access point on Avenue S. Cherry Blossom Street would traverse through a series of roundabouts and would connect into the ANSP area on the west side, which acts as another access point for the project site. The intersection at W Street and Avenue S has been designed to be consistent with

the proposed primary access to the proposed Quail Valley development south of the project site.

Secondary access to the project site would be provided via Tangerine Street, also located on the west side of the project site and north of Cherry Blossom Street. Tangerine Street also provides access at the ANSP boundary, just south of the California Aqueduct. Cherry Blossom Street and Tangerine Street are accessed by The Groves, the main collector street through the ANSP.

2.3.3 Recreational Amenities, Open Space and Water Quality Basins

The project would provide multiple open space areas and water quality basins. As shown in **Table 4, Proposed Recreational Amenities, Open Space and Water Quality Basin Summary**, these areas comprise a total of approximately 25.3 acres of the site, and are intended for recreational and drainage purposes. In total, there are 7.2 acres of parklands, a recreation center, trails, and perimeter HOA-maintained slopes within the site. The community center could consist of a recreational building for meetings and events, a pool and spa area with seating areas, barbeques, and picnic tables. Refer to **Exhibit 4, Preliminary Amenities Plan**.

Table 4: Proposed Recreational Amenities, Open Space and Water Quality Basin Summary

Recreational Amenities and Open Space Acreage	
Parks	7.2
Recreation Center	0.8
Connection Trails	1.0
Avenue S Path	1.8
Aqueduct Trail	2.0
Total	12.8
Water Quality Basin Acreage	
Lot B	1.3
Lot E and F	2.2
Lot G and H	2.6
Lot K	0.7
Lot L	5.7
Total	12.5
Total Recreational Amenities, Open Space and Water Quality Basin Acreage	**25.3**
Source: D&D Engineering, Inc., Tentative Tract Map No. 54328 Site Plan, February 2024, revised October 9, 2024.	

2.3.4 Trail Amenities

The project would provide a series of open space lots (trails) that would provide multiple points of access to the Aqueduct Trail. Refer to **Exhibit 4, Preliminary Amenities Plan** and **Table 5, Proposed Trail Access Points**. A 14-foot-wide lighted trail would also be provided, which would serve as an extension of the existing park and trail system established in the ANSP area per the ANSP. The trail would be designed for use by bicyclists and pedestrians.

Table 5: Proposed Trail Access Points

No.	Planning Area (PA)	Description
1	7	This access point would be located at the southeast corner of the project site at the intersection of the California Aqueduct and Avenue S. This proposed bike trail intersection would provide access between the Avenue S east-west bike trail and the California Aqueduct bike trail, eventually connecting to the ANSP trail system.
2	1	This access point would be located at Lot A (a park site located between Lots 17 and 33) and would connect Cherry Blossom Street to the Aqueduct Trail. This proposed access through the park would connect the project interior to the Aqueduct Trail and eventually to the ANSP trail system. This park site would complement the Anaverde Nuevo trail system since it could be a bicycle staging area and/or rest stop and/or warm-up area for trail users.
3	7	This access point would be at Lot X (a large park adjacent to the Aqueduct Trail). This proposed access would connect the project interior to the Aqueduct Trail and eventually to the ANSP trail system.
4	1	This access point would be located at the northwest corner of the project site. This would be the point of connection between the Aqueduct Trail, as proposed by this project, and the existing ANSP trail system.
5	1	This access point would be located on the western boundary of the project site at the western end of Tangerine Street. Tangerine Street, as it crosses from one project to another, would provide access to the ANSP trail on the north and south sides of the street, which runs north and south along the eastern boundary of the ANSP and connects the Aqueduct Trail to the Avenue S bike lane.
6	1	This access point would be located on the western boundary of the project site at the western end of Cherry Blossom Street. As it crosses from one project to another, Cherry Blossom Street would provide access to the ANSP tail on the north and south sides of the street. The ANSP trail runs north and south along the eastern boundary of the ANSP and connects the Aqueduct Trail to the Avenue S bike lane.
7	2	This access point would be located at the southwest corner of the project site at the intersection of the western project boundary and Avenue S. The Avenue S bike lane would connect to the existing Avenue S bike lane and expand the regional ANSP trail system.
8	4-9	This access point would be located at the intersection of Avenue S and R Street. R Street would provide access to the proposed Avenue S bike lane at the east and west curb returns and connect the project interior to the ANSP trail system.
9	8-10	This access point would be located at the intersection of Avenue S and W Street. W Street would provide access to the proposed Avenue S bike lane at the east and west curb returns and connect the project interior to the ANSP trail system and the proposed Quail Valley project to the south.
10	7	This access point would be located at Avenue S and Y Street. Y Street would provide access to the proposed Avenue S bike lane at the east and west curb returns and connect the project interior to the ANSP trail system. Fencing locations, materials and maintenance would be consistent with the adjacent ANSP project requirements.

2.3.5 Landscaping

Ornamental water-efficient landscaping will be installed throughout the project site. Planting materials would be selected in accordance with the City's Landscape Ordinances, including the Approved Plant List; Landscape Ordinance (Ordinance No. 1176); Street Tree Maintenance Ordinance (Ordinance No. 1259); and Water Conservation Ordinance (Ordinance No. 1475). The project landscaping plan would also be subject to the provisions of PMC Chapters 14.04, *Joshua Tree and Native Desert Vegetation Preservation* and 14.05, *Water Efficient Landscape*.

2.3.6 Utilities and Services

The following utilities and services would serve the project site:

- *Water:* The project site would be served by the Los Angeles County Waterworks District (LACWD) No. 40. Water service will be provided by utilizing the tanks in the Anaverde Phase 1 development and connecting to existing water lines located in the Anaverde development in Tangerine Street and Cherry Blossom Street.
- *Sewer:* The project site would be served by both the Los Angeles County Sanitation District and the City of Palmdale Public Works Maintenance Division. The project site will be graded to allow gravity flow sewer system. The gravity flow sewer system will be designed to flow from east to west to connect with the existing sewer line stubbed at the eastern end of Tangerine Street in the Anaverde development.
- *Stormwater Drainage:* This project will participate in the Pelona Vista Dam and Anaverde Creek drainage solution. The City of Palmdale Drainage Benefit Assessment District will maintain all debris and detention basins.
- *Electricity and Natural Gas:* Electricity and natural gas services would be provided by Southern California Edison (SCE) and Southern California Gas Company (SoCalGas).

2.3.7 Roadway Improvements

The project would contribute to off-site improvements on nearby roadway facilities. Specifically, the following off-site improvements have been identified in the *Traffic Operations Analysis:*

- Intersection 1: Tierra Subida Avenue & Avenue S: Widen the westbound approach to accommodate a third westbound through (WBT) lane.
- Intersection 2: State Route 14 (SR-14) Southbound ramps & Avenue S: Widen the westbound approach to accommodate a second westbound through (WBT) lane.
- Intersection 3: SR-14 Northbound ramps & Avenue S: Widen the northbound approach to accommodate a second northbound left turn (NBL) lane.

The project also proposes to signalize the driveway intersections of R Street and W Street on Avenue S. The unsignalized driveway intersection of Y Street and Avenue S is designed as side street stop-controlled allowing all turning movements. In addition, the project would construct new frontage improvements that would establish the first continuous connections in this developing area and assist in implementing the City's General Plan infrastructure, including sidewalks and bicycle facilities.

2.4 Phasing/Construction

Construction of the project is anticipated to begin in 2026 and would be completed over several phases. Construction activities are anticipated to last approximately 8 years depending on market conditions and sales. Project construction would occur within the City's allowable hours, and no nighttime construction is proposed. It is anticipated that construction activities will be scheduled in compliance with PMC Chapter 8.28,

Building Construction Hours of Operation and Noise Control.

2.5 Anticipated Agreements, Permits, and Approvals

The project would require agreements, permits, and approvals from the City of Palmdale and other regulatory agencies before construction. These agreements, permits, and approvals are described below and may change as the project entitlement process proceeds.

- *California Department Fish and Wildlife* - Native Desert Preservation Plan and Section 1602 Lake and Streambed Agreement
- *State Water Resources Control Board* - General Permit No. CAS000002 - Waste Discharge Requirements for Discharges of Storm Water Runoff Associated with Construction Activity, Storm Water Pollution Prevention Plan, and Best Management Practices
- *Regional Water Quality Control Board* - Stormwater Pollution Prevention Plan General Permit and Section 401 Water Quality Certification / Waste Discharge Permit
- *Antelope Valley Air Quality Management District* - Dust Plan
- *County of Los Angeles Department of Public Works* – Approved Water Supply Assessment
- *Local Agency Formation Commission (LAFCO) for the County of Los Angeles* - Annexation request to annex a total of 16 parcels encompassing approximately 162.45 acres into the City of Palmdale; the annexation is required as an entitlement for the project and LA County LAFCO will review the application at a future date.
- *City of Palmdale* - California Environmental Quality Act Clearance; Zone Change, General Plan Amendment, Tentative Tract Map No. 54328; Planned Development PD 04-02, Solar Permit for solar panels installed at each residence; Fire Sprinkler Permit; Grading Permit; Permits for sewer, water, dry utilities, privacy wall and retaining walls, and fences, landscape; Building Permit; and Electrical, Mechanical and Plumbing Permits; approval of Mitigation Measures and Conditions of Approval relative to Tribal Cultural Resources (refer to Section 5.18, *Tribal Cultural Resources,* of this IS/MND).

Exhibit 1: Regional Vicinity Map

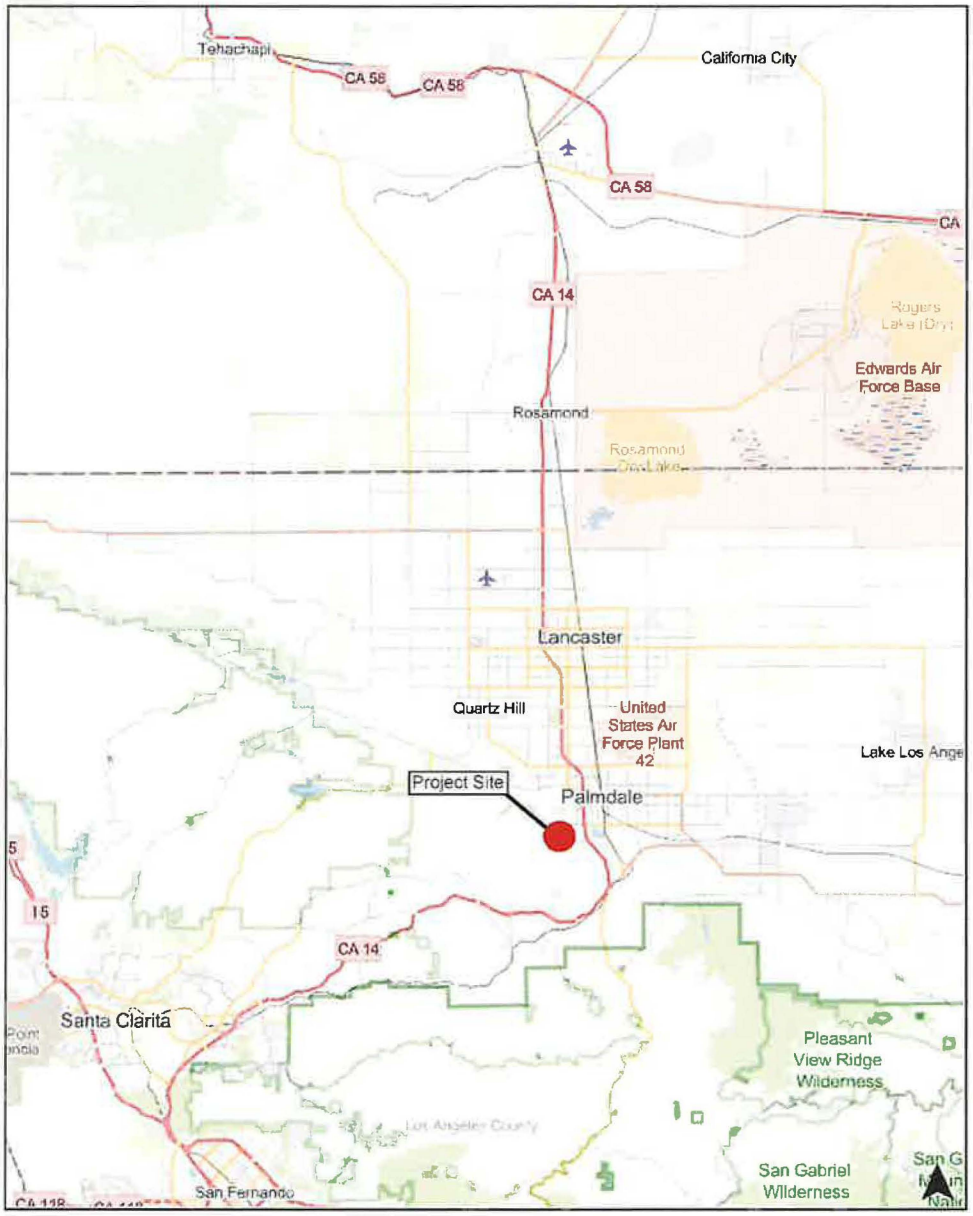

Exhibit 1 Regional Vicinity

Source: ESRI OpenStreet Map

Falcon Glen Project

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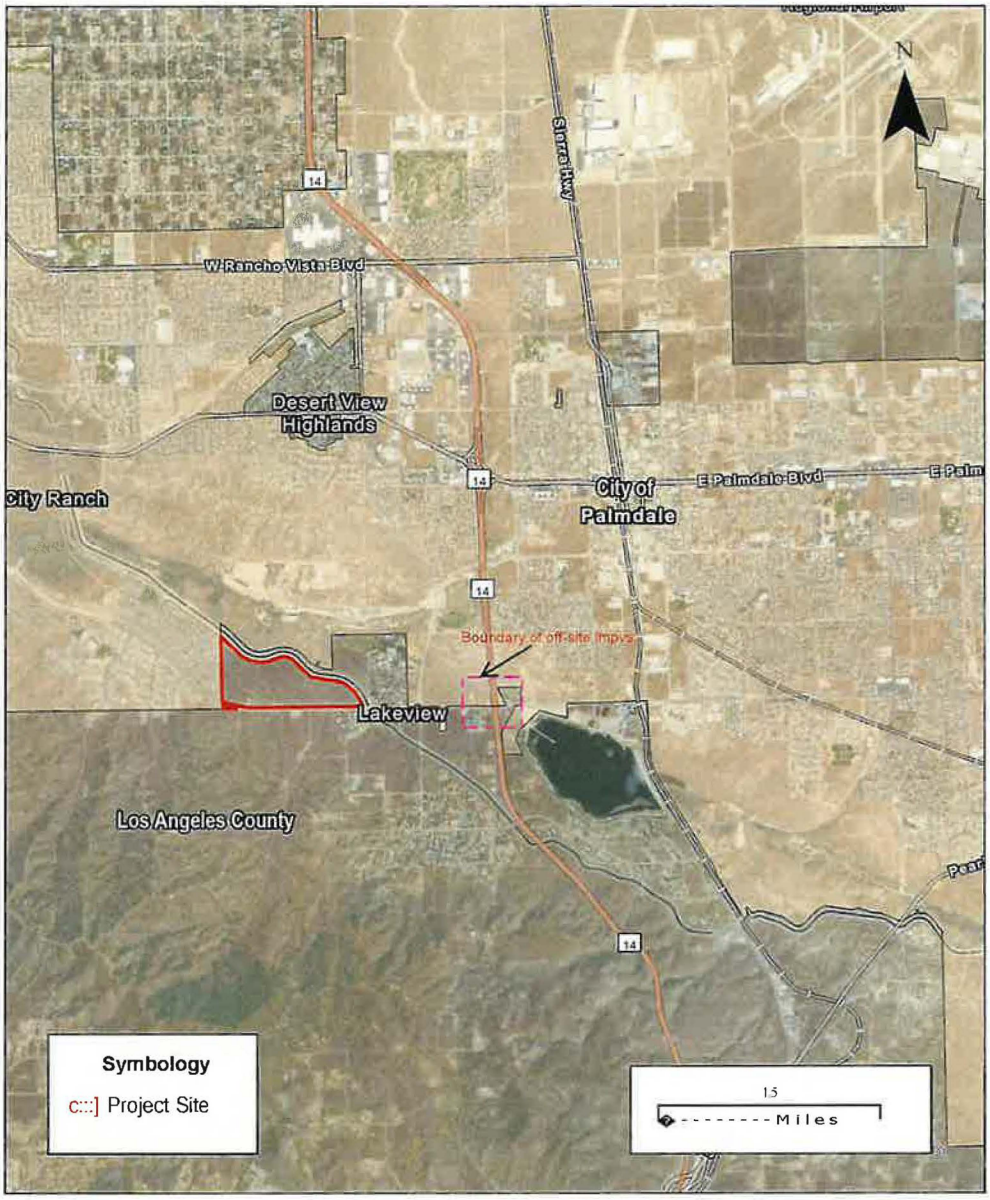
Exhibit 2: Site Vicinity Map



BKF

Source: City of Palmdale

Exhibit 2 Site Vicinity

Falcon Glen Project

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Exhibit 3: Conceptual Site Plan

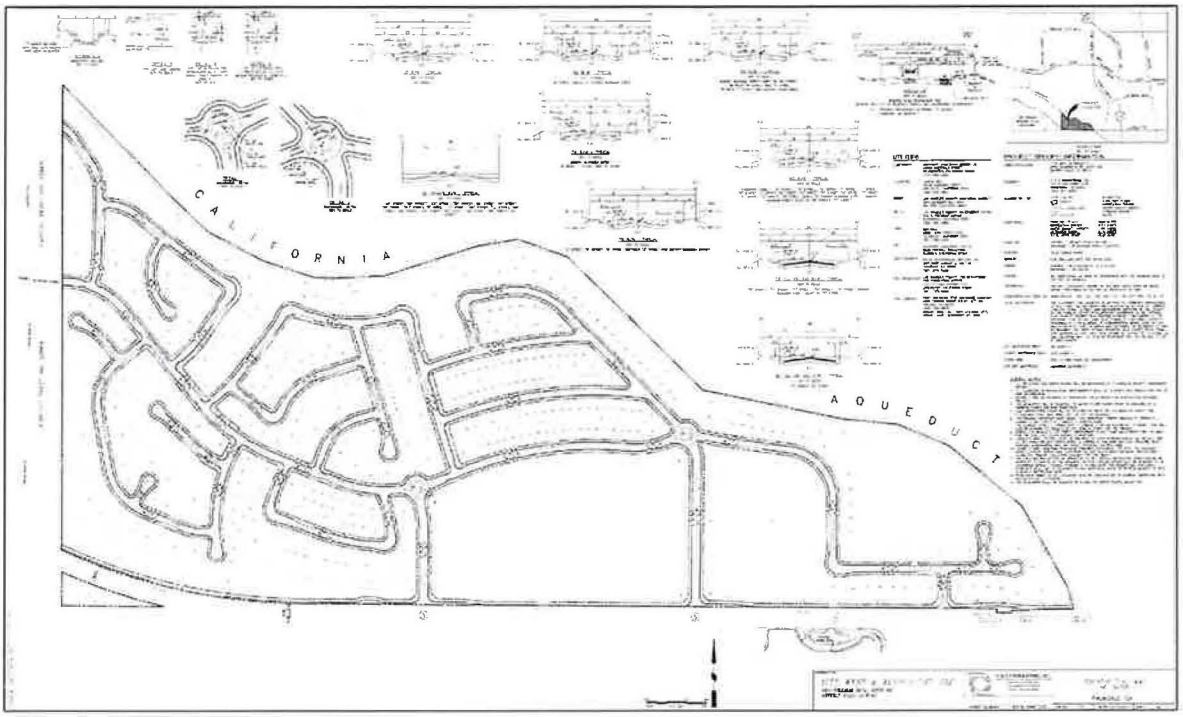

Exhibit 3 Conceptual Site Plan
Falcon Glen Project

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Exhibit 4: Preliminary Amenities Plan

Exhibit 4 Preliminary Amenities Plan

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3 Initial Study Checklist

Project Title		Falcon Glen Project
Lead Agency		City of Palmdale 38300 Sierra Highway Palmdale, California
Lead Agency Contact		Brenda Magana, Planning Manager 661-267-5393 bmagana@cityofpalmdale.org
Project Location		The site consists of Assessor's Parcel Numbers (APN) 3004-014-001, 3004-014-004, 3004-014-005, 3004-014-008, 3004-014-009, 3004-014-012, 3004-014-018, and 3004-014-023 through 3004-014-031. The project site is in the unincorporated Los Angeles County within the City of Palmdale's Sphere of Influence; refer to **Exhibit 2, Site Vicinity**.
Project Sponsor Contact		Rodeo Credit Enterprises, LLC 9595 Wilshire Boulevard, Suite 708 Beverly Hills, California 90212 Kris Pinero, Project Manager
General Plan Land Use		The City of Palmdale has pre-designated 152.37 acres of the project site as Single Family Residential (SFR 2). The easternmost 17.16 acres of the project site have been pre-designated as Low-Density Residential (LDR).
Zoning		The City of Palmdale has pre-zoned 152.37 acres of the project site as Single Family Residential (SFR 2). The easternmost 17.16 acres of the project site have been pre-zoned as Low-Density Residential (LDR).
Description of Project		Refer to Section 2.4, *Project Characteristics.*
Surrounding General Plan Land Use and Zoning		
North	General Plan Land Use	Industrial
	Zoning	Water Body Aqueduct and Light Industrial
East	General Plan Land Use	Low-Density Residential
	Zoning	Low-Density Residential
South	General Plan Land Use	Single Family Residential 1 and Low-Density Residential
	Zoning	Single Family Residential 1 and Low-Density Residential
West	General Plan Land Use	Specific Plan

	Zoning	Specific Plan

Other Required Public Agency Approvals

California Department of Fish and Wildlife - Native Desert Preservation Plan and Section 1602 Lake and Streambed Agreement

State Water Resources Control Board - General Permit No. CAS000002 - Waste Discharge Requirements for Discharges of Storm Water Runoff Associated with Construction Activity, Storm Water Pollution Prevention Plan, and Best Management Practices

Regional Water Quality Control Board - Stormwater Pollution Prevention Plan General Permit and Section 401 Water Quality Certification / Waste Discharge Permit

County of Los Angeles Department of Public Works - Water Supply Assessment

Local Agency Formation Commission (LAFCO) for the County of Los Angeles – Annexation of a total of 16 parcels encompassing approximately 162.45 acres into the City of Palmdale

Antelope Valley Air Quality Management District – Dust Plan

Have California Native American Tribes traditionally and culturally affiliated with the project area requested consultation pursuant to Public Resources Code section 21080.3? If so, has consultation begun?

Yes. Tribal consultation has been initiated and will be completed upon public circulation of this IS/MND. Refer to Section 5.18, *Tribal Cultural Resources*, for details regarding Tribal consultation.

4 Determination

4.1 Environmental Factors Potentially Affected

The environmental factors checked below would be potentially affected by this project, involving at least one impact requiring mitigation to be reduced to a level that is less than significant as indicated in the checklist on the following pages.

☐	**Aesthetics**	☐	**Greenhouse Gas Emissions**	☐	**Public Services**
☐	**Agriculture and Forestry Resources**	☒	**Hazards and Hazardous Materials**	☐	**Recreation**
☐	**Air Quality**	☐	**Hydrology and Water Quality**	☐	**Transportation**
☒	**Biological Resources**	☐	**Land Use and Planning**	☒	**Tribal Cultural Resources**
☒	**Cultural Resources**	☐	**Mineral Resources**	☐	**Utilities and Service Systems**
☐	**Energy**	☒	**Noise**	☒	**Wildfire**
☒	**Geology and Soils**	☐	**Population and Housing**	☐	**Mandatory Findings of Significance**

4.2 Determination

On the basis of this initial evaluation:

☐ I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.

☒ I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.

☐ I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.

☐ I find that the proposed project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.

☐ I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

Brenda Magana
Planning Manager

Date

5 Environmental Analysis

This section analyzes the potential environmental impacts associated with the proposed project. The issue areas evaluated in this Initial Study include:

- 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 and Service Systems
- Wildfire
- Mandatory Findings of Significance

The environmental analysis in this section is patterned after the State CEQA Guidelines, Appendix G Initial Study Checklist and utilized by the City of Palmdale in its environmental review process. For the preliminary environmental assessment undertaken as part of this Initial Study's preparation, a determination that there is a potential for significant effects indicates the need to analyze the development's impacts more fully and to identify mitigation.

For the evaluation of potential impacts, the questions in the Initial Study Checklist are stated and an answer is provided according to the analysis undertaken as part of the Initial Study. The environmental analysis considers the long-term, direct, indirect, and cumulative impacts of the development. To each question, there are four possible responses:

- *No Impact*. The development will not have any measurable environmental impact on the environment.
- *Less Than Significant Impact*. The development will have the potential for impacting the environment, although this impact will be below established thresholds that are considered to be significant.
- *Less Than Significant Impact With Mitigation Incorporated*. The development will have the potential to generate impacts which may be considered as a significant effect on the environment, although mitigation measures or changes to the development's physical or operational characteristics can reduce these impacts to levels that are less than significant.
- *Potentially Significant Impact*. The development will have impacts which are considered significant, and additional analysis is required to identify mitigation measures that could reduce these impacts to less than significant levels.

Where potential environmental impacts are anticipated to be significant, mitigation measures shall be required to avoid or reduce any such impact.

5.1 Aesthetics

Would the proposed project:					
Issues		**Potentially Significant Impact**	**Less Than Significant Impact with Mitigation Incorporated**	**Less Than Significant Impact**	**No Impact**
a)	Have a substantial adverse effect on a scenic vista?			✓	
b)	Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?				✓
c)	Substantially degrade the existing visual character or quality of the site and its surroundings?			✓	
d)	Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?			✓	

a) Have a substantial adverse effect on a scenic vista?

Less Than Significant Impact. A scenic vista is a view of undisturbed natural lands exhibiting a unique or unusual feature that comprises a significant or dominant portion of the viewshed. Scenic vistas may also be represented by a particular distant view that provides visual relief from less attractive views of nearby features. Other designated Federal and State lands, and local open space or recreational areas may also offer scenic vistas if they represent a valued aesthetic view within the surrounding landscape.

Scenic vistas and view corridors in the City of Palmdale are identified in the Environmental Resources Element of the City's General Plan. The General Plan identifies the following Scenic Routes: Barrel Springs Road, Tierra Subida Avenue, Sierra Highway south of Avenue S, Elizabeth Lake Road, Pearblossom Highway, Bouquet Canyon Road, Godde Hill Road, and the Antelope Valley Freeway south of Rayburn Road (Exhibit ER-1 of the City of Palmdale General Plan).

As indicated in Section 4.1, Aesthetics, of the City's *General Plan EIR*, these mountains are most easily viewed from large areas of unobstructed open space. In other places, views of the mountains are full to partially obstructed by existing trees and buildings.

The project would include the construction of residences, recreational facilities, and drainage/water quality facilities; refer to **Exhibit 3, Conceptual Site Plan**. Such uses would be similar to the existing residential uses located adjacent to the west of the project site within the ANSP area. They would not visibly contrast with or substantially alter existing views along the

valley floor. While the proposed structures would be visible from local streets and neighboring properties, the project would incorporate landscaping, building materials, and accents compatible with the existing setting and adjacent land uses. Visual effects associated with project construction activities would include exposed building pads, staging areas for grading and excavation equipment, and building materials. However, views of such elements on site. would be temporary and cease when construction is completed. Further, project construction is anticipated to take approximately 8 years and would affect a portion of the site at a given time, limiting potential visual effects.

Title 17, Zoning, of the PMC, includes the City's zoning regulations and standards. The purpose of Title 17 is to designate, regulate, and control the location, use, height, and alteration of buildings, structures, and land for residence, commerce, trade and industry, or other purposes. PMC Section 17.86, Landscaping, Lighting, Walls and Fences, includes lighting standards for protecting the City's aesthetic character. As part of the discretionary process, the project would be required to adhere to the provisions of Title 17. It would be subject to City review and approval of Planned Development PD 04-02 for the proposed building design, construction materials, landscaping, and exterior lighting plans prior to the issuance of a building permit to ensure compatibility with the visual character of the surrounding development. Therefore, the project would not have a substantial adverse effect on a scenic vista. Impacts would be less than significant.

b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?

No Impact. There are no officially designated State Scenic Highways located in or within proximity to the project site. The nearest officially designated State Scenic Highway to the project site is State Route 2 (SR-2), located approximately 20.6 miles south of the site.[4] The project site would not be readily visible from any designated State Scenic or Eligible State Scenic Highway. No impact would occur.

c) In nonurbanized 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 point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?

Less Than Significant Impact. The project site is in an urbanizing area of the City that permits residential development. Specifically, the site is bordered by residential uses to the west and east and vacant land to the north and south. Immediately north of the site is the California Aqueduct system, and the Antelope Valley Public Landfill is also located approximately 0.5-miles to the north. Applicable zoning and other regulations governing scenic quality include Title 17, *Zoning,* of the PMC, and the Land Use and Community Design Element of the General Plan, which focuses on establishing goals and policies that define and guide the desired visual character and quality of specific neighborhoods, districts, and corridors in the City, including development

[4] Caltrans, State Scenic Highway System Map, https://caltrans.maps.arcgis.com/apps/webappviewer/index.html?id=465dfd3d807c46cc8e8057116f1aacaa, accessed December 4, 2023.

standards for areas designated for residential development. Specifically, the applicable goals and policies with which the proposed project would comply include the following:

- 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-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-5.2 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.
- 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.
- Policy LUD-5.5 Trail Networks. Provide new trails systems that connect to the regional system.
- 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.
- 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.
- Policy LUD-6.2 Primary Entries. Require new homes to provide a primary entryway and windows facing the street.

In addition, as discussed above, the project's design is consistent with the applicable standards contained in Title 17, *Zoning,* of the PMC and would be subject to City review and approval of Planned Development PD 04-02 to ensure consistency. The project is consistent with the land use and zoning designations established by the City for the project site. It would not conflict with applicable General Plan goals and policies and zoning requirements. Therefore, the impacts would be less than significant.

d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?

Less Than Significant Impact. The residences, recreational space, and new streets would require nighttime lighting, like what is provided in the adjacent residential development to the west. Light standards associated with new streets would be deflected away from adjoining properties and focused downward. The increase in night lighting would not adversely affect nighttime views in the local area. All project lighting must be consistent with PMC Section 17.86, *Landscaping, Lighting, Walls, and Fences,* which provides standards and requirements for lighting installations to prevent excessive light and glare.

Glare occurs when light hits reflective surfaces. Glare can be caused by direct or indirect lighting from generated illumination or the sun. The use of reflective building materials that would have the potential to cause glare (e.g., reflective glass, large expansive surface areas of glass) is not anticipated since the glass elements proposed for the project would be low-reflective. Therefore, the project is not anticipated to create a new source of substantial light or glare. Impacts would be less than significant.

5.2 Agriculture / Forestry Resources

Would the proposed project:					
	Issues	**Potentially Significant Impact**	**Less Than Significant Impact with Mitigation Incorporated**	**Less Than Significant Impact**	**No Impact**
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. Would the proposed 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 nonagricultural use?				✓
b)	Conflict with existing zoning for agricultural use, or a Williamson Act contract?				✓
c)	Conflict with existing zoning for, or cause rezoning of, forestland (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))?				✓
d)	Result in the loss of forestland or conversion of forestland to non-forest use?				✓
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 forestland to non-forest use?				✓

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 nonagricultural use?

No Impact. The project site is not designated as Prime Farmland, Unique Farmland, or Farmland of Statewide Importance. Based on the California Department of Conservation California Important Farmland Finder website[5], the site is identified as Other Land, which is defined as land not included in any other mapping category (common examples include low-density rural developments; brush, timber, wetland, and riparian areas not suitable for livestock grazing; confined livestock, poultry, or aquaculture facilities; strip mines and borrow pits; and water bodies smaller than 40 acres). Therefore, no impact would occur.

b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?

No Impact. The project site is not zoned for agricultural use, nor is the site covered under an existing Williamson Act contract. Based on the California Department of Conservation Williamson Act Enrollment Finder,[6] there are no parcels in the City that are currently enrolled in a Williamson Act contract. Thus, project implementation would not conflict with existing zoning for agricultural use, or a Williamson Act contract. No impact would occur.

c) Conflict with existing zoning for, or cause rezoning of, forestland (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))?

No Impact. As there are no forests or timberlands located within the City of Palmdale, the proposed project would not result in the rezoning of forest or timberland. Therefore, no impact would occur.

d) Result in the loss of forestland or conversion of forestland to non-forest use?

No Impact. As there are no forests or timberlands located within the City of Palmdale, the proposed project would not result in the rezoning of forest or timberland. No loss of forest land or the conversion of forest land to non-forest land would occur. Therefore, no impact would occur.

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 forestland to non-forest use?

No Impact. Refer to Impact 5.2(a) through 5.2(d). No impact would occur.

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[5] California Department of Conservation, *California Important Farmland Finder*, https://maps.conservation.ca.gov/DLRP/CIFF/, accessed December 4, 2023.

[6] California Department of Conservation, Los Angeles County Williamson Act Enrollment 2022, https://maps.conservation.ca.gov/dlrp/WilliamsonAct/, accessed December 4, 2023.

5.3 Air Quality

Would the proposed project:					
	Issues	**Potentially Significant Impact**	**Less Than Significant Impact with Mitigation Incorporated**	**Less Than Significant Impact**	**No Impact**
a)	Conflict with or obstruct implementation of the applicable air quality plan?			✓	
b)	Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or State ambient air quality standard?			✓	
c)	Expose sensitive receptors to substantial pollutant concentrations?			✓	
d)	Result in other emissions (such as those leading to odors adversely affecting a substantial number of people?			✓	

Air quality impacts were assessed in accordance with methodologies recommended by the California Air Resources Board (CARB) and the Antelope Valley Air Quality Management District (AVAQMD). Where quantification was required, emissions were modeled using the California Emissions Estimator Model (CalEEMod). The information and analysis herein rely on the following reports and technical data:

- *Air Quality and Greenhouse Gas Emissions Impact Analysis for Falcon Glen, Tentative Tract Map 54328, City of Palmdale, California* (AQ/GHG/Energy Impact Analysis), prepared by MS Hatch Consulting, dated March 2025, provided as Appendix A.

Air Quality Setting

Mojave Desert Air Basin

The proposed development is in the City of Palmdale, which is part of the Mojave Desert Air Basin (MDAB). An air basin is a geographical region to describe an area with a commonly shared air mass, since air pollution does not follow county, city, or political boundaries. The location is under the jurisdiction of the AVAQMD, which is the local agency with the primary responsibility for the control of non-vehicular sources of air pollution throughout the Antelope Valley. The AVAQMD is located downwind of the Los Angeles basin and the San Joaquin Valley. Prevailing winds transport ozone and ozone precursors from both regions into and through the MDAB during the summer and contribute to air pollution in the air basin.

Regional Climate

The meteorological condition of the project location such as wind speed and direction and temperature, have an impact on the air quality. The MDAB includes mountains, adjacent to wide valleys, with heights of 1,000 to 4,000 feet from the valley floor. West and southwest winds are dominant in the MDAB and directed from the vicinity of MDAB to coastal regions and blocked by Sierra Nevada Mountains in the north.

a) Conflict with or obstruct implementation of the applicable air quality plan?

Less Than Significant Impact. The Federal Particulate Matter Attainment Plan and Ozone Attainment Plan for the Antelope Valley sets forth a comprehensive set of programs that will lead the MDAB into compliance with federal and State air quality standards. The control measures and related emission reduction estimates within the Federal Particulate Matter Attainment Plan and Ozone Attainment Plan are based upon emissions projections for a future development scenario derived from land use, population, and employment characteristics defined in consultation with local governments. Accordingly, conformance with these attainment plans for development projects is determined by demonstrating compliance with the indicators discussed below.

Criterion No. 1: Compliance with Local Land Use Laws and/or Population Projections

The City's General Plan designates the project site for residential land uses. The residential designation allows for single- and multi-family residential development. The Project Applicant proposes a land use for the project site that is consistent with the existing General Plan land use designation of residential for the project site (upon approval of the proposed General Plan Amendment and Zone Change as part of the project's entitlements). The project would therefore conform to local land use plans and population/employment projections, and would be consistent with the Federal Particulate Matter Attainment Plan and Ozone Attainment Plan for the Antelope Valley.

In addition to consistency with the site's residential land use designation, and although compliance with every General Plan goal and policy is not a required determinate for land use consistency, the project also is consistent with the Air Quality Element of the City's General Plan, which establishes goals and policies related to protecting, maintaining, and enhancing air quality within Palmdale. As discussed below under Impact 5.3(b), the project's air pollutant emission impacts would be less than significant and as discussed in Section 5.6, *Energy*, the project's energy impacts would be less than significant. The Project Applicant has committed to project design features to reduce air pollutants and increase energy efficiency.

Criterion No. 2: Compliance with AVAQMD Rules and Regulations

The project's construction and operation would be required to comply with all applicable AVAQMD Rules and Regulations, including, but not limited to Rule 401, Visible Emissions; Rule 402, Nuisance; Rule 403, Fugitive Dust; and Rule 1113, Architectural Coatings.

Criterion No. 3: Demonstrating that the project will not increase the frequency or severity of a violation in the federal or State ambient air quality standards

Based on the project's AQ/GHG/Energy Impact Analysis and as discussed below in the analyses of Impacts 5.3(b) and 5.3(c), project construction and operational-source emissions would not exceed applicable AVAQMD regional thresholds. As such, the project would not have the potential to increase the frequency or severity of a violation in the federal or State ambient air quality standards for ongoing project operations.

The project would conform to local land use plans, comply with all applicable AVAQMD Rules and Regulations, and would not exceed the applicable regional thresholds for air pollutant emissions. As such, the project is consistent with the Federal Particulate Matter Attainment Plan and Ozone Attainment Plan for the Antelope Valley (i.e., the applicable air quality plans in the project area). Therefore, the project would not conflict with or obstruct implementation of the applicable air quality plan and impacts would be less than significant.

b) Result in a cumulatively considerable net increase of any criteria pollutant for which the

project region is non-attainment under an applicable Federal or State ambient air quality standard?

Less Than Significant Impact. The emissions associated with the proposed project consist of construction and operational emissions from the housing development. Construction emissions are temporary and include emissions of criteria pollutants and greenhouse gases from construction activities during site preparation, grading, building construction, paving, and the application of architectural coatings. Operational emissions consist of area sources (i.e., re-applying architectural coatings, consumer products, and landscaping equipment), energy use (i.e., electricity and natural gas), mobile sources (e.g., commuting), solid waste disposal, water, and wastewater use (i.e., supplying and treating water and wastewater), and refrigerants (i.e., air conditioners).

Based on the project's AQ/GHG/Energy Impact Analysis, **Table 6, Annual Construction and Operational Emissions Summary**, and **Table 7, Maximum Daily Construction and Operational Emissions Summary**, present the annual and daily emissions summaries from the construction and operation of the proposed project, respectively. Emissions were estimated using CalEEMod Version 2022.1.1.24. Construction and operational emissions were based on four CalEEMod land use types: Single Family Housing, Recreational Swimming Pool, Other Asphalt Surfaces, and Other Non-Asphalt Surfaces.

This project is not considered one of the project types that the AVAQMD CEQA Guidelines require to be evaluated for potentially exposing sensitive receptors to substantial pollutant concentrations. As such, hazardous air pollutant emissions were not calculated, and the project was not evaluated for potential health risks to sensitive receptors.

Table 6: Annual Construction and Operational Emissions Summary

Emissions Source	Total Emissions (tons per year)					
	ROG	NOx	CO	SOx	PM10	PM2.5
Construction Emissions						
Year 1 (2026)	0.25	2.36	2.33	<0.01	0.19	0.12
Year 2 (2027)	0.42	4.35	3.97	0.01	0.77	0.35
Year 3 (2028)	0.16	1.14	1.81	<0.01	0.15	0.07
Year 4 (2029)	0.27	1.55	3.73	0.01	0.55	0.16
Year 5 (2030)	0.26	1.50	3.60	0.01	0.55	0.16
Year 6 (2031)	0.25	1.44	3.48	0.01	0.55	0.16
Year 7 (2032)	3.18	1.44	3.56	0.01	0.59	0.16
Year 8 (2033)	2.97	0.61	1.55	<0.01	0.26	0.07
Operational Emissions						
Mobile	4.11	3.24	30.00	0.07	7.88	2.03
Area	6.46	0.03	3.64	<0.01	<0.01	<0.01
Energy	0.07	1.25	0.53	0.01	0.10	0.10
Total Operational Emissions	**10.60**	**4.52**	**34.20**	**0.08**	**7.98**	**2.13**
Significant Emissions Threshold	**25**	**25**	**100**	**25**	**15**	**12**
Exceeds Threshold?	**No**	**No**	**No**	**No**	**No**	**No**

Source: MS Hatch Consulting, Air Quality and Greenhouse Gas Emissions Impact Analysis for Falcon Glen, Tentative Tract Map 54328, City of Palmdale, California, March 2025, Table 8, p. 32

Notes: ROG: Reactive Organic Compounds, used interchangeably with Volatile Organic Compounds (VOC); NOX: oxides of nitrogen; CO: Carbon monoxide; SOX: Oxides of sulfur; PM2.5: particulate matter less than 2.5 micrometers in diameter; PM10: particulate matter less than 10 micrometers in diameter; CO2e: Carbon dioxide equivalent; MT: Metric Ton. Individual values may not add up exactly to total values due to rounding.

Table 7: Maximum Daily Construction and Operational Emissions Summary

Emissions Source	Total Emissions (pounds per day)					
	ROG	NOx	CO	SOx	PM10	PM2.5
Construction Emissions						
Year 1 (2026)	3.28	35.10	30.70	0.11	5.98	2.73
Year 2 (2027)	3.21	33.40	30.80	0.11	5.95	2.66
Year 3 (2028)	3.11	31.90	30.10	0.11	5.90	2.61
Year 4 (2029)	2.18	11.80	33.40	0.04	4.28	1.23
Year 5 (2030)	2.11	11.40	32.10	0.04	4.26	1.22
Year 6 (2031)	2.05	11.00	30.90	0.04	4.24	1.20
Year 7 (2032)	54.90	11.60	34.00	0.04	4.90	1.35
Year 8 (2033)	54.70	11.20	32.90	0.04	4.88	1.33

Operational Emissions						
Mobile	25.30	17.80	197.00	0.45	44.60	11.50
Area	37.10	<0.01	40.40	<0.01	0.02	0.01
Energy	0.40	6.85	2.92	0.04	0.55	0.55
Total Operational Emissions	**62.90**	**24.70**	**240.00**	**0.49**	**45.20**	**12.10**
Significant Emissions Threshold	**137**	**137**	**548**	**137**	**82**	**65**
Exceeds Threshold?	**No**	**No**	**No**	**No**	**No**	**No**

Source: MS Hatch Consulting, Air Quality and Greenhouse Gas Emissions Impact Analysis for Falcon Glen, Tentative Tract Map 54328, City of Palmdale, California, March 2025, Table 9, p. 33

Notes: ROG: Reactive Organic Compounds, used interchangeably with Volatile Organic Compounds (VOC); NOX: oxides of nitrogen; CO: Carbon monoxide; SOX: Oxides of sulfur; PM2.5: particulate matter less than 2.5 micrometers in diameter; PM10: particulate matter less than 10 micrometers in diameter; CO2e: Carbon dioxide equivalent; MT: Metric Ton. Individual values may not add up exactly to total values due to rounding.

Construction Impacts

Construction associated with the project would generate short-term construction-related emissions of criteria air pollutants. However, based on the project's AQ/GHG/Energy Impact Analysis and as shown in **Tables 6** and **7**, emissions resulting from construction of the project would not exceed criteria pollutant thresholds established by the AVAQMD for emissions of any criteria pollutant. Therefore, construction activities associated with the project would not 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 and the project's construction-related impacts would be less than significant.

Operational Impacts

Operation of the project would generate long-term operational emissions of criteria air pollutants. However, based on the project's AQ/GHG/Energy Impact Analysis and as shown in **Tables 6** and **7**, emissions resulting from operation of the project would not exceed criteria pollutant thresholds established by the AVAQMD for emissions of any criteria pollutant. Therefore, operational activities associated with the project would not 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 and the project's operational impacts would be less than significant.

c) Expose sensitive receptors to substantial pollutant concentrations?

Less Than Significant Impact. AVAQMD CEQA Guidelines consider residences, schools, daycare centers, playgrounds, and medical facilities sensitive receptor land uses. The CEQA guidelines require the following project types proposed for sites within the specified distance to an existing or planned sensitive receptor land use be evaluated using significance threshold criteria number 4:

- Any industrial project within 1000 feet
- A distribution center (40 or more trucks per day) within 1000 feet
- A major transportation project (50,000 or more vehicles per day) within 1000 feet
- A dry cleaner using perchloroethylene within 500 feet;

- A gasoline dispensing facility within 300 feet.

Several sensitive receptors surround the project site. **Table 8, Sensitive Receptors in the Project Site Vicinity**, summarizes these receptors and their respective distances from the project site.

Table 8: Sensitive Receptors in the Project Site Vicinity

#	Receptor	Direction from Project Location	Distance (feet) [receptor to site]
1	Palmdale Regional Medical Center 38600 Medical Center Drive Palmdale, CA 93551	Northeast	1.45 [property line to property line]
2	Anaverde Hills School 2902 Greenbrier Street Palmdale, CA 93551	West	0.86 [property line to property line]
3	Palmdale Learning Plaza (Elementary School) 38043 Division Street Palmdale, CA 93551	Northeast	1.35 [property line to property line]
4	Pelona Vista Park 37720 Tierra Subida Avenue Palmdale, CA 93551	Northeast	0.75 [property line to property line]
5	Foothill Park 2525 The Groves Palmdale, CA 93551	Northwest	0.49 [property line to property line]
6	Manzanita Heights Park 431 Mesa Verde Avenue Palmdale, CA 93551	Northeast	1.31 [property line to property line]

Source: MS Hatch Consulting, Air Quality and Greenhouse Gas Emissions Impact Analysis for Falcon Glen, Tentative Tract Map 54328, City of Palmdale, California, March 2025, Table 5, p. 9.

The proposed project is not one of the above project types. Further, based on the project's AQ/GHG/Energy Impact Analysis and as shown in **Table 8**, Foothill Park and Pelona Vista Park are the closest locations to the project site. Based on the prevailing wind direction from the northwest, the emissions from the proposed project would not impact the public at Foothill Park. Winds blown from the south could carry emissions from the project site to the Pelona Vista Park. However, since the south winds are generally low speed and the Pelona Vista Park is located 0.75 miles from the project site, the impact would be less than significant.

d) Result in other emissions (such as those leading to odors adversely affecting a substantial number of people?

Less Than Significant Impact. Land uses associated with odor complaints typically include agricultural uses (livestock and farming), wastewater treatment plants, food processing plants, chemical plants, composting, refineries, landfills, dairies, and fiberglass molding.

Construction Impacts

Potential temporary and intermittent odors may result from construction equipment exhaust and application of asphalt and architectural coatings. Temporary and intermittent construction-source emissions are controlled through existing requirements and industry Best Management Practices (BMPs) that address proper storage of and application construction materials and use of machinery/equipment, and are included by the City as

standard Conditions of Approval. Any impacts to existing adjacent land uses would be short-term and are less than significant.

Operational Impacts

The operation of the proposed project does not include any uses typically identified as being associated with odors. In addition, the project would also be required to comply with AVAQMD Rule 402. Rule 402 provides that "[a] person shall not discharge from any source whatsoever such quantities of air contaminants or other material which cause injury, detriment, nuisance or annoyance to any considerable number of persons or to the public, or which endanger the comfort, repose, health or safety of any such persons or the public, or which cause, or have a natural tendency to cause, injury or damage to business or property. Therefore, impacts would be less than significant.

5.4 Biological Resources

Would the proposed project:					
	Issues	**Potentially Significant Impact**	**Less Than Significant Impact with Mitigation Incorporated**	**Less Than Significant Impact**	**No Impact**
a)	Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or US Fish and Wildlife Service?		✓		
b)	Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the California Department of Fish and Wildlife or US Fish and Wildlife Service?				✓
c)	Have a substantial adverse effect on State or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?		✓		
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?				✓
e)	Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?				✓
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?				✓

The information and analysis herein rely on the following investigations and collectively document the biological resources and conditions of the project site:

- *Biological Resources Assessment, Falcon Glen Residential Project, City of Palmdale* (Biological Assessment), prepared by MNS Engineers, Inc., dated January 2025, provided as Appendix B1
- *Aquatic Resources Delineation Report, TTM 54328 15th Street West and Ave S Project, Los Angeles County, California* (ARDR), prepared by Aspen Environmental Group, dated February 2024, provided as Appendix B2

Physical and Biological Setting

Site Conditions

Based on the *Biological Assessment* prepared for the project, a field survey was conducted on December 18, 2024. The topography within the project site is characterized by predominantly flat and vacant lands dominated by non-native plant species. There are dirt roads throughout the site. Elevations on the project site range from 2,939 feet above mean sea level (amsl) to 3,071 feet amsl. There are several drainage features occurring on-site, which are discussed in detail under "Jurisdictional Areas" below. The California Aqueduct is located to the north. The surrounding land use is comprised of high-density residential development to the west, low-density residential development to the east and southeast, and open space to the north and south.

Vegetation

All vegetation and land cover types are described in detail below, and acreages areas are presented in **Table 9, Vegetation and Other Land Cover Types in the Project Site**, and shown in **Exhibit 5, Vegetation and Land Cover Map** based on data from the *Biological Assessment*.

Table 9: Vegetation and Other Land Cover Types in the Project Site

Vegetation Type	Acres
Big sagebrush	1.81
California poppy – lupine fields	97.25
Rubber rabbitbrush scrub	54.48
Sandbar willow thickets	0.06
Wild oats and annual brome grasslands	3.37
Other Land Cover Type	
Developed or disturbed	5.48
Unvegetated channel	0.27
Total	**162.72**

Source: MNS Engineers, Inc., *Biological Resources Assessment, Falcon Glen Residential Project, City of Palmdale*, January 2025, Table 2.

Special-Status Biological Resources

A literature review was conducted, and aerial photographs and topographic maps of the project location and surrounding areas were reviewed as part of the *Biological Assessment* conducted for the project. The following USGS quads were used to query the California Natural Diversity Database (CNDDB): *Ritter Ridge, Sleepy Valley, Del Sur, Lancaster West, Lancaster East, Palmdale, Pacifico Mountain, Acton,* and *Agua Dulce*. The CNDDB and U.S. Fish and Wildlife Service (USFWS) critical habitat databases were utilized, together with Geographic Information System (GIS) software, to locate the previously recorded locations of sensitive plant and wildlife occurrences and designated critical habitat and determine the distance from the project site. In addition, the USFWS Information for Planning and Consultation (IPaC) Project Planning Tool and the USFWS National Wetlands Inventory were consulted. Standard field guides and texts were reviewed for specific habitat requirements of special-status species, as well as the following resources: Calflora Database; Google Earth Pro Historical Aerial Imagery from 1985 to 2025; and Cornell Lab of Ornithology's eBird Database.

Special-Status Plants

A total of eight (8) plant species are listed as State and/or federal Threatened, Endangered, Candidate, or 1B.1 listed plants on the California Native Plant Society (CNPS) Rare Plant Inventory. Of these, two (2) plant species have the potential to be present on the project site: slender mariposa-lily (*Calochortus clavatus var. gracilis*) and short-joint beavertail (*Opuntia basilaris var. brachyclada*). The following is a description of the sensitive species.

Horn's Milk-Vetch

Horn's milk-vetch (*Astragalus hornii var. hornii*) is ranked 1B.1 in the CNPS Rare Plant Inventory. It is typically found in alkali playa, meadow, seep, and wetland habitats. No habitat for this species is present on the project site. This species is not present.

Lancaster Milk-Vetch

Lancaster milk-vetch (*Astragalus preussii var. laxiflorus*) is ranked 1B.1 in the CNPS Rare Plant Inventory. It is typically found in alkaline clay flats or gravelly or sandy washes and along draws in gullied badlands. No habitat for this species is present on the project site. This species is not present.

Slender Mariposa-Lily

The slender mariposa-lily (*Calochortus clavatus var. gracilis*) is ranked 1B.2 in the CNPS Rare Plant Inventory. Its habitats include chaparral, coastal scrub, valley and foothill grassland. It is found on shaded foothill canyons; often on grassy slopes within other habitats. This species blooms from May through June. The project site has suitable habitat. This species has the potential to be present.

Parry's spineflower

Parry's spineflower (*Chorizanthe parryi var. parryi*) is ranked 1B.1 in the CNPS Rare Plant Inventory. The species occurs in dry, sandy soils on dry slopes and flats, sometimes at the interface of two vegetations types, such as chaparral and oak woodland. Its habitat includes coastal scrub, chaparral, cismontane woodland, valley and foothill grassland. No habitat for this species is present on the project site. This species is not present.

Slender-horned spineflower

Slender-horned spineflower (*Dodecahema leptoceras*) is a federally and State listed Endangered species and is ranked 1B.1 in the CNPS Rare Plant Inventory. This species is typically found near flood deposited terraces and washes. Its habitat includes chaparral, cismontane woodland, and coastal scrub (alluvial fan sage scrub). No habitat for this species is present on the project site. This

species is not present.

Rosamond eriastrum

Rosamond eriastrum (*Eriastrum rosamondense*) is ranked 1B.1 in the CNPS Rare Plant Inventory. It is typically found in alkali pool beds separated by very low hummocks with open cheopod scrub. Often sandy soil. No habitat for this species is present on the project site. This species is not present.

Short-joint beavertail

Short-joint beavertail (*Opuntia basilaris var. brachyclada*) is ranked 1B.2 in the CNPS Rare Plant Inventory. This species is typically found in chaparral, Joshua tree woodland, Mojavean desert scrub, pinyon and juniper woodland. Its habitat includes sandy soil or coarse, granitic loam. The project site has suitable habitat. This species has the potential to be present.

Mason's neststraw

Mason's neststraw (*Stylocline masonii*) is ranked 1B.1 in the CNPS Rare Plant Inventory. It is typically found in sandy washes. Its habitat includes chenopod scrub, pinyon and juniper woodland. No habitat for this species is present on the project site. This species is not present.

Special-Status Wildlife

A total of 14 wildlife species are listed as State and/or federal Threatened, Endangered, or Candidate species. Of these, four (4) wildlife species have the potential to be present on the project site: coast horned lizard (*Phrynosoma blainvillii)*; Northern California legless lizard (*Anniella pulchr*); burrowing owl (*Athene cunicularia*); and Crotch's bumble bee (*Bombus crotchii*). A list of species observed during the 2023 and 2024 field surveys is provided in the *Biological Assessment*. The following is a description of the sensitive wildlife species and their potential to occur onsite.

Fish

Santa Ana sucker

Santa Ana sucker (*Catostomus santaanae*) is a federally listed Threatened species. Its habitat includes aquatic and south coast flowing waters. This species prefers sand-rubble-boulder bottoms, cool and clear water, and algae. It is endemic to Los Angeles Basin south coastal streams. The project site does not contain suitable streambed or riverine habitat for this species. This species is not present.

Unarmored threespine stickleback

Unarmored threespine stickleback (*Gasterosteus aculeatus williamsoni*) is a federally listed Endangered species. It is found in cool (<24 degrees Celcius), clear water with abundant vegetation. It is found in weedy pools, backwaters, and among emergent vegetation at the stream edge in small Southern California streams. The project site does not have suitable streambed or riverine habitat for this species. This species is not present.

Amphibians

Arroyo Toad

Arroyo Toad (*Anaxyrus californicus*) is a federally listed Endangered species and a CDFW Species of Special Concern (SSC). The most favorable breeding habitat for this species consists of slow-moving shallow pools, nearby sandbars, and adjacent stream terraces. Its habitat includes desert wash, riparian scrub, riparian woodland, south coast flowing waters, and south coast standing waters. There is no habitat for this species on the project site. This species is not present.

Reptiles

Coast horned lizard

Coast horned lizard (*Phrynosoma blainvillii)* is a CDFW SSC. This species is found in coastal sage scrub, coastal bluff scrub, chaparral, cismontane woodland, desert wash, pinon and juniper woodlands, riparian scrub, riparian woodland, and valley and foothill grassland. This species thrives in open areas for sunning, bushes for cover, patches of loose soil for burial, and an abundant supply of ants and other insects. The project site provides suitable habitat for this species. This species has the potential to be present.

California red-legged frog

California red-legged frog (*Rana draytonii*) is a federally listed Threatened species and a CDFW SSC. Its habitat includes aquatic, artificial flowing waters, artificial standing waters, freshwater marsh, marsh and swamp, riparian forest, riparian scrub, riparian woodland, Sacramento and San Joaquin flowing and standing waters, and south coast. It requires 11 to 20 weeks for larval development and must have access to estivation habitat. It is most commonly found in lowlands and foothills, in or near permanent sources of deep water, with dense, shrubby, or emergent riparian vegetation. The project site does not contain suitable habitat for this species. This species is not present.

Southern mountain yellow-legged frog

Southern mountain yellow-legged frog (*Rana muscosa*) is a federally and State listed Endangered species. It is found in aquatic habitat. This species is always encountered within a few feet of water. Tadpoles may require two to four years to complete their aquatic development. The project site does not contain suitable habitat for this species. This species is not present.

Northern California legless lizard

Northern California legless lizard (*Anniella pulchr*) is a California SSC. It is found in chaparral and coastal scrub where there is sandy or loose, moist soils. Potential habitat for the species occurs around the onsite drainage features. The project site does contain suitable habitat for this species. This species may be present.

Birds

Tricolored blackbird

Tricolored blackbird (*Agelaius tricolor)* is a State listed candidate Threatened species and listed by the CDFW as a SSC. Its habitat includes freshwater marsh, marsh and swamp, swamp, and wetland. This species is largely endemic to California and is most numerous in and around Central Valley. This species requires open accessible water, protected nesting substrate, and foraging area with insect prey within a few kilometers of the colony. There is no habitat for this species on the project site. This species is not present.

Burrowing owl

Burrowing owl (*Athene cunicularia*) is a State Candidate species. Its habitat includes coastal prairie, coastal scrub, Great Basin grassland, Great Basin scrub, Mojavean desert scrub, Sonoran desert scrub, and valley and foothill grassland. This species is typically found in open and dry annual or perennial grasslands, deserts, and scrublands characterized by low-growing vegetation. It is a subterranean nester and is dependent upon burrowing mammals, most notably the California ground squirrel. The project site provides suitable habitat for this species. This species has the potential to be present.

Swainson's hawk

Swainson's hawk (*Buteo swainsoni*) is a State listed Threatened species. This species favors open grasslands for foraging but also occurs in agricultural settings. It relies on scattered stands of trees near agricultural fields and grasslands for nesting sites. Its habitats include great basin grassland, riparian forest, riparian woodland, and valley and foothill grassland. The project site does not contain suitable habitat for this species. This species is not present.

Least Bell's vireo

Least Bell's vireo (*Vireo bellii pusillus)* is a federal and State listed Endangered species. This species is found in riparian forest, riparian scrub, and riparian woodland. The nesting habitat of this species is restricted to willow and/or mulefat dominated riparian scrub along permanent or nearly permanent streams. The project site does not contain suitable habitat for this species. This species is not present.

Southwestern willow flycatcher

Southwestern willow flycatcher (*Empidonax traillii extimus*) is a federally and State listed Endangered species. It is found in riparian woodland habitat in southern California. The project site does not contain suitable habitat for this species. This species is not present.

Coastal California gnatcatcher

Coastal California gnatcatcher (*Polioptila californica californica*) is a federally listed Threatened species and CDFW SSC. This species is found in coastal bluff scrub and coastal scrub habitat. This species is typically found in low, coastal sage scrub in arid washes, on mesas and slopes. The project site does not contain suitable habitat for this species. This species is not present.

Mammals

Mohave ground squirrel

Mohave ground squirrel (*Xerospermophilus mohavensis)* is a State listed Threatened species. This species is found in sandy to gravelly soils, avoids rocky areas and uses burrows at base of shrubs for cover. It is found in open desert scrub, alkali scrub and Joshua tree woodland and also feeds in annual grasslands. This species is restricted to the Mojave Desert. The project site does not contain suitable habitat for this species. This species is not present.

Invertebrates

Crotch's bumble bee

Crotch's bumble bee (*Bombus crotchii*) is a State Candidate Endangered species. It is located in coastal California east to the Sierra-Cascade crest and south into Mexico. Its food plan generally includes *Antirrhinum*, *Phacelia*, *Clarkia*, *Dendromecon*, *Eschscholzia*, and *Eriogonum*. The project site may provide suitable habitat for this species. This species has the potential to be present.

Vernal pool fairy shrimp

Vernal pool fairy shrimp (*Branchinecta lynchi*) is a federally listed Threatened species. This species is found in seasonal pools of water in valley and foothill grasslands. This species typically inhabits small, clear-water sandstone-depression pools and grassed swale, earth slump, or basalt-flow depression pools. The project site does not contain suitable habitat for this species. This species is not present.

Quino checkerspot butterfly

Quino checkerspot butterfly (*Euphydryas editha quino*) is a federally listed Endangered species. It is found in chaparral and coastal sage scrub. This species requires high densities of food plants,

including *Plantago erecta*, *P. insularis*, and *Orthocarpus purpurescens*. The project site does not have suitable habitat for this species. This species is not present.

Nesting Birds

No active nests or birds displaying nesting behavior were observed during the field survey. However, the project site contains shrubs and trees that can be used by nesting songbirds during the nesting bird season.

Migratory Corridors and Linkages

Wildlife movement corridors link together areas of suitable habitat that are otherwise separated by rugged terrain, changes in vegetation, or human disturbances. The project site was evaluated for its function as a wildlife corridor that species would use to move between wildlife habitat zones. Usually, mountain canyons or riparian corridors are used by wildlife as corridors. The project site contains ephemeral drainages. However, the drainages on site lead to the northern border of the site which is fenced and run parallel to the California Aqueduct. Furthermore, residential development occurs east and west of the site and the southern border of the project site runs parallel to Avenue S. The ephemeral drainages on site do not function as wildlife corridors. No wildlife movement corridors were found to be present on the project site.

Critical Habitat

Critical habitat is designated by USFWS for endangered and threatened species per the Federal Endangered Species Act (16 U.S.C. § 1533 (a)(3)), and to the extent prudent and determinable. Special management of critical habitat, including measures for water quality and quantity, host animals and plants, food availability, pollinators, sunlight, and specific soil types is required to ensure the long-term survival and recovery of the identified species. Critical habitat designation delineates all suitable habitat for the species. Based on the *Biological Assessment,* the project site is not located within or directly adjacent to federally designated critical habitat for endangered species.

Jurisdictional Areas

Three key agencies regulate activities in inland streams, wetlands, and riparian areas in California. The United States Army Corps of Engineers (USACE) Regulatory Branch regulates discharge of dredge or fill materials into waters of the United States pursuant to Section 404 of the federal Clean Water Act (CWA) and Section 10 of the Rivers and Harbors Act. Of the State agencies, the Regional Water Quality Control Board (RWQCB) regulates discharges to surface waters pursuant to CWA Section 401 and the California Porter-Cologne Water Quality Control Act, while the CDFW regulates alterations to streambeds and associated plant communities under Section 1600 et seq. of the California Fish and Game Code.

As discussed in the *ARDR,* a total of eight drainage features were documented within the project site, all of which are expected to fall under the jurisdiction of CDFW and waters of the State that are expected to fall under the jurisdiction of the Lahontan RWQCB. None of the features are expected to fall under the jurisdiction of the USACE because the drainages have no connectivity to "traditional navigable waters (TNW), territorial seas, or interstate waters." Additionally, the drainages are ephemeral and are not "relatively permanent, standing or continuously flowing bodies of water." **Table 10, Summary of Jurisdictional Waters and Streambeds Within the Project Site**, below provides a summary of the total acreage for the drainages documented within the project site and their potential jurisdiction. **Exhibit 6, Jurisdictional Waters Map**, shows the locations of the identified drainages on the project site.

Table 10: Summary of Jurisdictional Waters and Streambeds Within the Project Site

Drainage ID	Area (acres)		
	USACE Waters of the U.S.	RWQCB Waters of the State	CDFW Streambeds
Drainage 1	0.00	0.04	0.18
Drainage 2	0.00	0.04	0.41
Drainage 3	0.00	0.03	0.06
Drainage 4	0.00	0.01	0.03
Drainage 5	0.00	0.05	0.12
Drainage 6	0.00	0.01	0.18
Drainage 7	0.00	0.02	0.04
Drainage 8	0.00	0.24	0.80
TOTAL	**0.00**	**0.44**	**1.82**

Source: Aspen Environmental Group, *Aquatic Resources Delineation Report, TTM 54328 15th Street West and Ave S Project, Los Angeles County, California*, February 2024, Table 4.

Drainage 1 – Drainage 1 is a manufactured drainage feature located at the northwest end of the project site designed to move water from properties to the west, north through the northwestern portion of the project site. Drainage 1 was mapped as Lahontan RWQCB waters of the State and CDFW Streambeds. Drainage 1 is mapped as developed or disturbed with portions of sandbar willow thickets which are dominated by species such as narrowleaf willow. At the time of the survey, drainage 1 contained minimal flows with a defined ordinary high-water mark (OHWM) but does not have downstream connectivity to TNW. It appears to share its outlet off-site with drainage 2. Drainage 1 is not mapped in the National Wetland Inventory (NWI).

Drainage 2 – Drainage 2 is a manufactured drainage feature located just south of drainage 1 within the northwest portion of the project site. It is designed to move water from properties to the west, north through the northwestern portion of the project site. Drainage 2 was mapped as Lahontan RWQCB waters of the State and CDFW Streambeds. Drainage 2 is mapped as an unvegetated channel with portions of developed or disturbed. At the time of the survey, drainage 2 contained very limited water near the sites input which quickly absorbed into the channel. It contained a defined OHWM which lacks downstream connectivity to TNW. It appears to end at a drainage pipe which is assumed to share its outlet off-site with drainage 1. Drainage 1 is not mapped in the NWI.

Drainage 3 – Drainage 3 is an isolated drainage feature located just south of drainage 2. Drainage 3 was mapped as Lahontan RWQCB waters of the State and CDFW Streambeds. Drainage 3 is mapped as California poppy – lupine fields with portions of rubber rabbitbrush scrub and developed or disturbed areas. It appears that it traditionally connected to and received flows from drainage 4, to the south, but currently lacks a defined bed and bank connectivity. At the time of the survey, drainage 3 had no surface water present but contained a defined OHWM which does not have downstream connectivity to TNW. Drainage 3 is mapped as freshwater emergent wetland (PEM1Cx) in the NWI.

Drainage 4 – Drainage 4 is a small, isolated drainage feature located south of drainage 3 in the southwestern portion of the project site. Drainage 3 was mapped as Lahontan RWQCB waters of the State and CDFW Streambeds. Drainage 4 is mapped as California poppy – lupine fields with portions of developed or disturbed areas. It appears that it traditionally originated from the southwestern corner of the project site and previously connected to drainage 3, to the north, but currently lacks defined bed and bank connectivity. At the time of the survey, drainage 4 had no surface water present but

contained a defined OHWM which does not have downstream connectivity to TNW. Drainage 4 is not mapped in the NWI.

Drainage 5 – Drainage 5 is a drainage feature located near the southwestern portion of the project site. Drainage 5 was also mapped as Lahontan RWQCB waters of the State and CDFW Streambeds. Drainage 5 is exclusively mapped as California poppy – lupine fields and is dominated by upland species. It receives flows from within the project site and a concrete-lined stormwater culvert to the south that receives runoff from the adjacent open space areas. At the time of the survey, drainage 5 had no surface water present. An earthen berm and road crossing that is present in the basin floor, prevents flows from drainage 5 to flow north. Drainage 5 is mapped as riverine (R4SBC) in the NWI.

Drainage 6 – Drainage 6 is a drainage feature located near the south-central portion of the project site. Drainage 6 was also mapped as Lahontan RWQCB waters of the State and CDFW Streambeds. Drainage 6 is mapped as California poppy – lupine fields and rubber rabbitbrush scrub and is dominated by upland species. It also receives flows from within the project site and a concrete-lined stormwater culvert to the south that receives runoff from adjacent open spaces. At the time of the survey, drainage 6 had no surface water present but contained an OHWM which does not have downstream connectivity to TNW. Drainage 6 is not mapped in the NWI.

Drainage 7 – Drainage 7 is a drainage feature located in the northeastern portion of the project site, just west of drainage 8. Drainage 7 was also mapped as Lahontan RWQCB waters of the State and CDFW Streambeds. Drainage 7 is exclusively mapped as rubber rabbitbrush scrub and is dominated by upland species. It appears to originate from surface run-off within the project site. At the time of the survey, drainage 7 had no surface water present but contained a defined OHWM which does not have downstream connectivity to TNW. Drainage 7 is not mapped in the NWI.

Drainage 8 – Drainage 8 is a large drainage feature located at the eastern portion of the project site. Drainage 8 was also mapped as Lahontan RWQCB waters of the State and CDFW Streambeds. Drainage 8 is largely mapped as big sagebrush with portions of rubber rabbitbrush scrub. It receives flows from within the project site and a large concrete-lined stormwater culvert to the south that also receives runoff from adjacent open spaces. At the time of the survey, drainage 8 had no surface water present but the soil was wet. Drainage 8 is mapped as riverine (R4SBC) in the NWI.

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 Wildlife or US Fish and Wildlife Service?

Less Than Significant Impact With Mitigation Incorporated.

Special-Status Plant Species and Plant Communities

As discussed above, two (2) plant species have the potential to be present on the project site: slender mariposa-lily (*Calochortus clavatus var. gracilis*) and short-joint beavertail (*Opuntia basilaris var. brachyclada*). Therefore, focused surveys for these special-status species are required, as described in Mitigation Measure BIO-1. Implementation of Mitigation Measure BIO-1 would reduce potentially significant impacts to these special-status plant species to less than significant with mitigation incorporated.

Special-Status Wildlife Species

As discussed above, four (4) wildlife species have the potential to be present on the project site: coast horned lizard (*Phrynosoma blainvillii)*; Northern California legless lizard (*Anniella pulchr*); burrowing owl (*Athene cunicularia*); and Crotch's bumble bee (*Bombus crotchii*). Therefore, a pre-construction survey for coast horned lizard and Northern California legless

lizard is required, as described in Mitigation Measure BIO-2. In addition, pre-construction and focused surveys for burrowing owl are required, as described in Mitigation Measure BIO-3 and focused surveys for Crotch's bumble bee are required, as described in Mitigation Measure BIO-4. Implementation of Mitigation Measures BIO-2, BIO-3 and BIO-4 would reduce potentially significant impacts to these special-status wildlife species to less than significant with mitigation incorporated.

Nesting Birds

No active nests or birds displaying nesting behavior were observed during the field survey. However, the project site contains shrubs and trees that can be used by nesting songbirds during the nesting bird season. Therefore, Mitigation Measure BIO-5 requires a pre-construction clearance survey for nesting birds, in the event that ground disturbance and vegetation removal associated with the Project cannot occur outside of the nesting season. Implementation of Mitigation Measure BIO-5 would reduce potential impacts associated with nesting birds and burrowing owl to less than significant with mitigation incorporated.

Mitigation Measures

BIO-1 Prior to ground-disturbing construction activities, a qualified biologist shall conduct a protocol-level floristic survey of the proposed development area for slender mariposa-lily (*Calochortus clavatus var. gracilis*) and short-joint beavertail (*Opuntia basilaris var. brachyclada*) within the appropriate blooming season. The blooming season for slender mariposa-lily is March to June and the blooming season for short-tailed beavertail is April to June. If slender mariposa-lily or short-joint beavertail is found during the surveys within the proposed development area, a qualified biologist shall establish clearly demarcated avoidance zones around the plant species. If the plant populations cannot be avoided, the Project Applicant shall hire a qualified biologist to prepare a seed collection and replanting plan to reduce impacts to the identified special-status plant populations. The replanting plan must identify potential replanting area(s) sufficient to support the number of plants impacted by the proposed project. The floristic survey report, seed collection, and replanting plan, and evidence of compliance with provisions of the replanting plan shall be reviewed and approved by the City of Palmdale Planning Department at least 90 days prior to the commencement of ground disturbing activities.

BIO-2 A pre-construction survey for sensitive wildlife species (including coast horned lizard (*Phrynosoma blainvillii)* and Northern California legless lizard (*Anniella pulchr*)), shall be conducted 30 days prior to initial grading, demolition, and/or grubbing activities. If special-status (non-listed) wildlife species are observed within the impact area, the qualified biologist shall develop and implement appropriate protection measures for that species. These protection measures shall include, as appropriate: presence of a biological monitor during ground-disturbing activities, redirecting the species, constructing exclusionary devices, or capturing and relocating wildlife outside the work area (as project and/or individual Scientific Collecting Permits allow).

BIO-3 The proposed project shall conduct focused burrowing owl pre-construction surveys as follows:

1. A qualified biologist shall survey for burrowing owls adhering to survey methods described in the California Department of Fish and Wildlife's (CDFW's) 2012 *Staff Report on Burrowing Owl Mitigation* prior to ground disturbance. The

survey area shall include the project area and 500 feet from the project area where suitable habitat is present. The survey requires four survey visits during the spring comprised of: 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. Copies of the survey documents shall be provided to the City Planning and Building Departments after each survey, and copies will be retained on-site by the developer/applicant for reference purposes.

2. A pre-construction clearance survey shall be conducted to reconfirm the absence of burrowing owl within the project impact area and maintain compliance with the Migratory Bird Treaty Act and California Fish and Game Code. The pre-construction clearance survey must be conducted by a qualified biologist no more than 30 days prior to initiating any ground disturbing activities to avoid direct take of burrowing owl. Once the survey is completed, the qualified biologist shall prepare and submit a final report documenting the results of the clearance survey to the City of Palmdale for review and file. If no burrowing owl or occupied burrows are detected, project activities may begin, and no additional avoidance or minimization measures would be required. However, if an occupied burrow is found within the project impact area during the clearance survey, an appropriate no disturbance buffer zone shall be established around the nest to reduce the risk of disturbance or accidental take and coordination with CDFW must be initiated by the applicant and City of Palmdale to determine if an Incidental Take Permit under Section 2081 of the California Endangered Species Act (CESA) will be required.

BIO-4 If the Crotch's bumble bee is no longer a candidate or listed species under the California Endangered Species Act (CESA) at the time ground-disturbing activities are proposed to occur, then no additional protection measures are proposed for this species.

If the Crotch's bumble bee is legally protected under the CESA as a candidate or listed species at the time of Project construction, focused surveys shall be conducted in accordance with California Department of Fish and Wildlife (CDFW) *Survey Considerations for CESA Candidate Bumble Bee Species,* the season immediately prior to when ground disturbing activities are scheduled to occur. A minimum of three Crotch's bumble bee focused surveys shall be conducted at 2 to 4 week intervals (ideally monthly) during the colony active period (April through August) when Crotch's bumble bees are most likely to be detected. Non-lethal, photo voucher surveys shall be completed by a biologist who holds a Memorandum of Understanding to capture and handle Crotch's bumble bee (if nesting and chilling protocol is to be utilized) or by a CDFW-approved biologist experienced in identifying native bumble bee species (if surveys are restricted to visual surveys that will provide high-resolution photo documentation for species verification).

If an active Crotch's bumble bee nest is detected, an appropriate no disturbance buffer zone (including foraging resources and flight corridors essential for supporting the colony) shall be established around the nest to reduce the risk of disturbance or accidental take and the designated biologist shall coordinate with CDFW, the applicant, and the City to determine if an Incidental Take Permit under Section 2081 of the CESA will be required. Nest avoidance buffers may be removed at the completion of the flight season and/or once the qualified biologist

deems the nesting colony is no longer active and CDFW has provided concurrence of that determination. If no nests are found but the species is present, a full-time qualified biological monitor shall be present during vegetation removal or ground-disturbing activities that are scheduled to occur during the queen flight period (February through March), colony active period (March through September), and/or gyne flight period (September through October). Because bumble bees move nest sites each year, three (3) pre-construction nesting surveys shall be required during each subsequent year of construction, regardless of the previous year's findings, whenever vegetation removal and ground disturbing activities are scheduled to occur during the flight season (February through October). Copies of the surveys shall be provided to the City.

BIO-5 If project-related activities are to be initiated during the nesting season (February 1 to September 15), a pre-construction nesting bird clearance survey shall be conducted by a qualified biologist no more than three (3) days prior to the start of any vegetation removal or ground disturbing activities. The qualified biologist shall survey all suitable nesting habitat within the project impact area, and areas within a biologically defensible buffer zone surrounding the project impact area. If no active bird nests are detected during the clearance survey, project activities may begin, and no additional avoidance and minimization measures shall be required. If an active bird nest is found, the species shall be identified, and a "no-disturbance" buffer shall be established around the active nest. The size of the "no-disturbance" buffer shall be increased or decreased based on the judgment of the qualified biologist and level of activity and sensitivity of the species. The qualified biologist shall periodically monitor any active bird nests to determine if project-related activities occurring outside the "no-disturbance" buffer disturb the birds and if the buffer should be increased. Once the young have fledged and left the nest, or the nest otherwise becomes inactive under natural conditions, project activities within the "no-disturbance" buffer may occur following an additional survey by the qualified biologist to search for any new bird nests in the restricted area.

b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the California Department of Fish and Wildlife or US Fish and Wildlife Service?

No Impact. Based on the *ARDR* prepared for the project, the project site does not contain riparian habitat or other sensitive natural communities that would need to be preserved. Therefore, development of the project site would not result in impacts relative to riparian habitat or other sensitive natural communities. No impact would occur.

c) Have a substantial adverse effect on State or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?

Less Than Significant Impact With Mitigation Incorporated. As discussed above, a total of eight drainage features were documented within the project site, all of which are expected to fall under the jurisdiction of CDFW and waters of the State that are expected to fall under the jurisdiction of the Lahontan RWQCB. None of the features are expected to fall under the jurisdiction of the USACE because the drainages have no connectivity to "traditional navigable waters (TNW), territorial seas, or interstate waters." Additionally, the drainages are ephemeral and are not "relatively permanent, standing or continuously flowing bodies of water."

Specifically, as shown on **Table 10** and **Exhibit 6**, project development is expected to result in permanent impacts to 0.44 acres of Lahontan RWQCB jurisdictional waters of the State and 1.82 acres of CDFW jurisdictional streambeds within the project site. These jurisdictional resources would be rerouted through a storm drain system within the project site which would allow the drainages off-site to the south to continue to flow north into the project footprint. These drainages would then leave the project site through the same locations along the northern edge of the project site. Off-site impacts to these drainages are not expected to occur as a result of the project development. Therefore, since the project would potentially result in impacts to jurisdictional waters, mitigation is required. Mitigation Measure BIO-6 requires the Project Applicant to confer with the CDFW and the RWQCB and, if required, obtain appropriate authorization and implement all conditions associated with regulatory agency agreements and authorizations including compensatory mitigation, as determined by the RWQCB and CDFW. With implementation of Mitigation Measure BIO-6, potentially significant impacts to jurisdictional waters would be less than significant with mitigation incorporated.

Mitigation Measures

BIO-6 Prior to ground-disturbing activities in waters potentially regulated by the state, the Project Applicant shall confer with the California Department of Fish and Wildlife (CDFW) and the Regional Water Quality Control Board (RWQCB) and, if required, obtain appropriate authorization. The Applicant shall implement all conditions associated with regulatory agency agreements and authorizations including compensatory mitigation (at a minimum 1:1 ratio) and, unless otherwise specified by CDFW and/or the RWQCB, shall implement best management practices specified by CDFW and/or the RWQCB to minimize adverse impacts to streams and watersheds.

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?

No Impact. No wildlife movement corridors were found to be present on the project site. Therefore, the project would not interfere with the movement of any native resident or migratory fish or wildlife species, or with established native resident or migratory wildlife corridors. No impact would occur.

e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

No Impact. The City has a native desert vegetation ordinance (Chapter 14.04, *Joshua Tree and Native Desert Vegetation Preservation,* of the PMC) designed to protect western Joshua trees and California Junipers in the City. The Ordinance was originally adopted in 1992 and was amended by Emergency Ordinance No. 1556 in 2020 in response to the California Fish and Game Commission's vote to list the western Joshua tree as a candidate species under the CESA. Per the Ordinance, western Joshua trees and California Juniper trees shall not be removed from any parcel of land unless a permit has been obtained from CDFW.

Furthermore, any development proposal on a parcel of land containing native desert vegetation requires a desert vegetation preservation plan prepared in compliance with the PMC. Listing of the western Joshua tree under the CESA gives that species additional legal protections, such that any take of the species (including removal of western Joshua tree or similar actions) requires a permit from CDFW. Based on the *Biological Assessment* prepared for the project, there are no western Joshua trees or California junipers on the project site

under existing conditions. Therefore, no impact would occur.

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?

No Impact. The project area is not located within or near lands that are governed by a habitat conservation plan, a natural community conservation plan or other approved, local, regional or state habitat conservation plan. Therefore, no impact would occur.

Exhibit 5: Vegetation and Land Cover Map

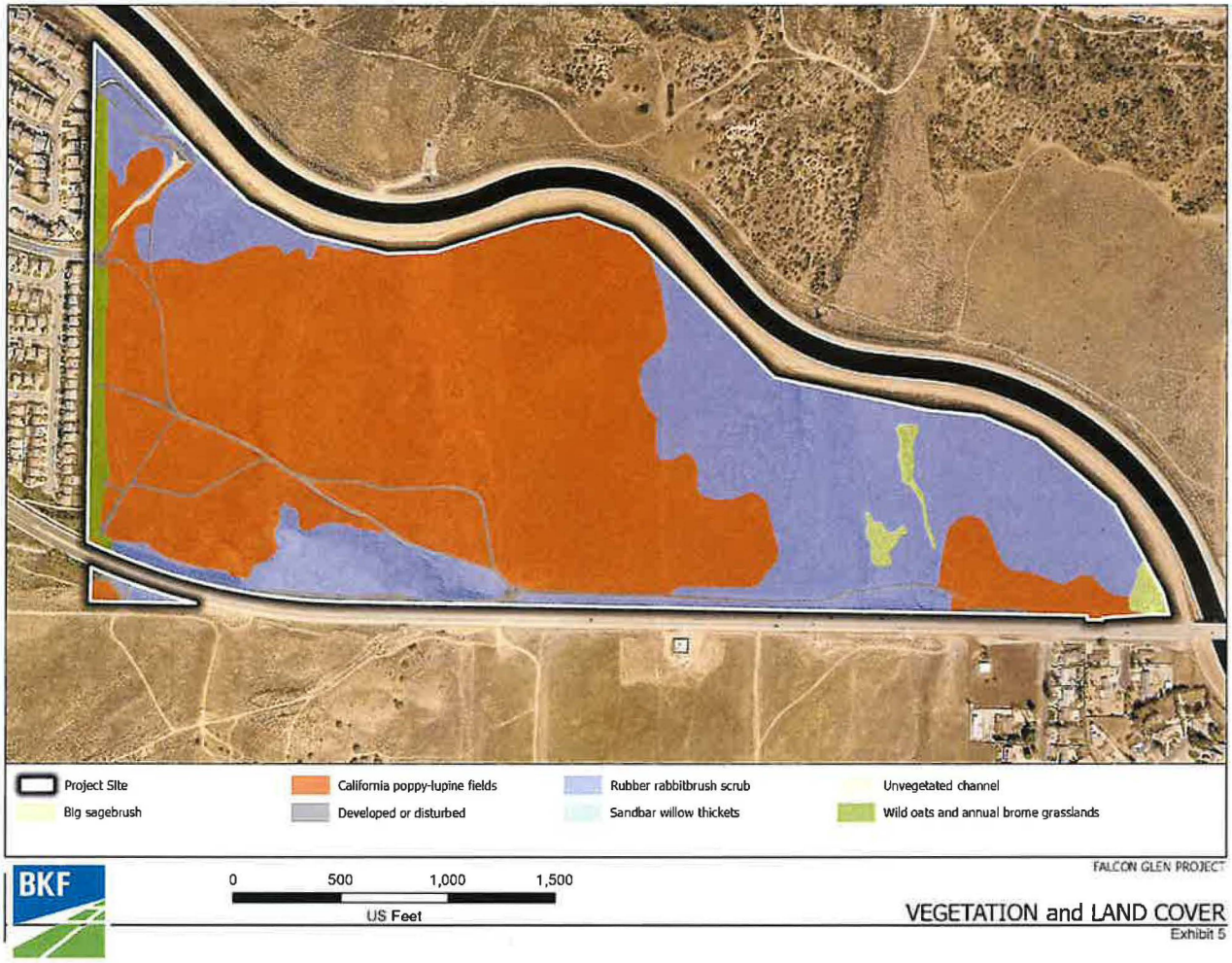

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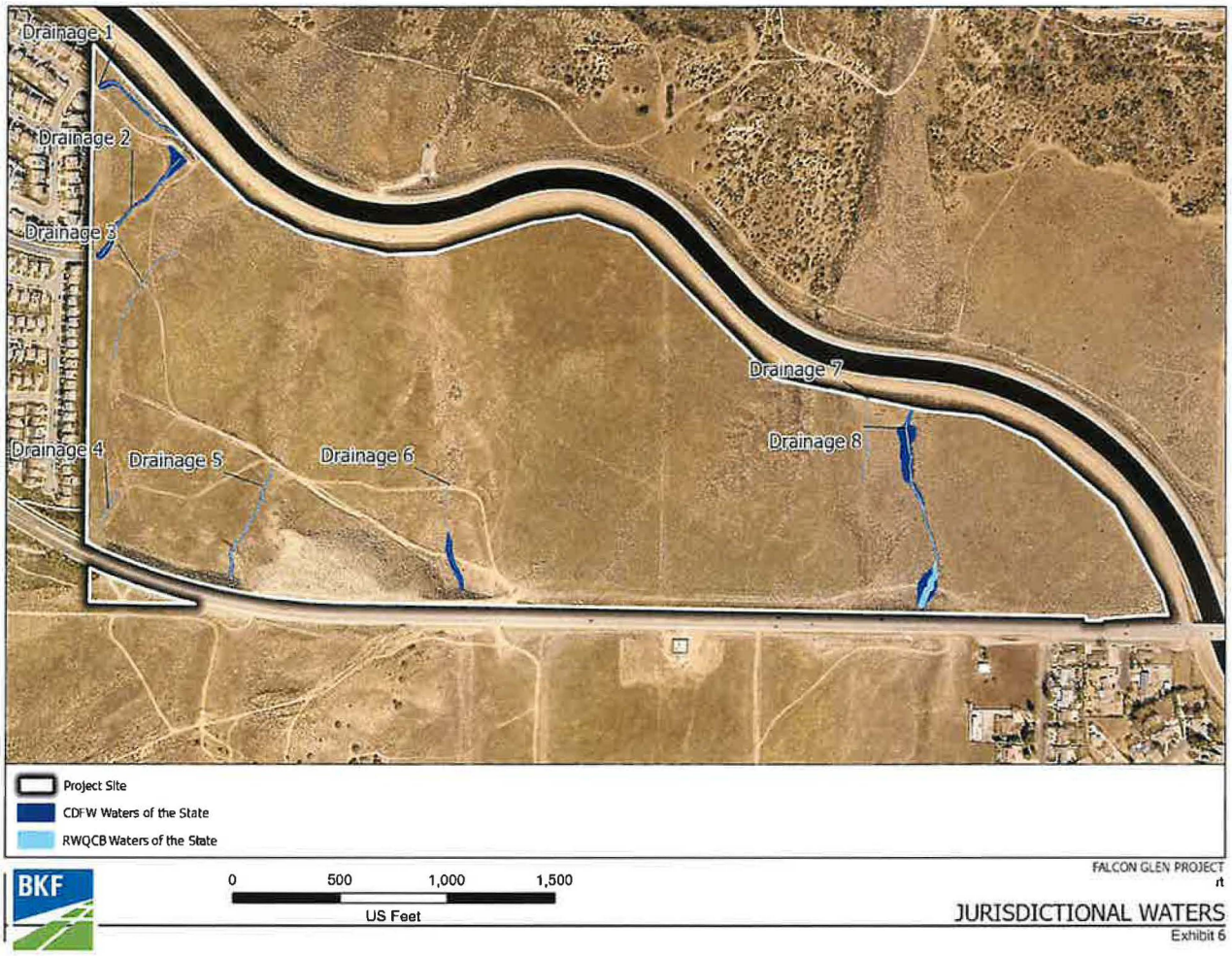
Exhibit 6: Jurisdictional Waters Map



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5.5 Cultural Resources

Would the proposed project:					
	Issues	**Potentially Significant Impact**	**Less Than Significant Impact with Mitigation Incorporated**	**Less Than Significant Impact**	**No Impact**
a)	Cause a substantial adverse change in the significance of a historical resource as defined in Section 15064.5?				✓
b)	Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?		✓		
c)	Disturb any human remains, including those interred outside of dedicated cemeteries?		✓		

Cultural resources include places, objects, and settlements that reflect group or individual religious, archaeological, architectural, or paleontological activities. Such resources provide information on scientific progress, environmental adaptations, group ideology, or other human advancements. By statute, the California Environmental Quality Act (CEQA) is primarily concerned with two classes of cultural resources: "historical resources," which are defined in Public Resources Code Section 21084.1 and CEQA Guidelines Section 15064.5, and "unique archaeological resources," which are defined in Public Resources Code Section 21083.2.

The information and analysis herein rely on the following investigations and collectively document the cultural resources and conditions of the project site:

- *A Phase I Cultural Resource Survey, Falcon Glen, 15th Street West and Avenue S, Tentative Tract Map 50428, City of Palmdale, California*, (Cultural Resource Survey) prepared by Hudlow Cultural Resource Associates, dated November 2022, revised October 2024, provided as Appendix C.

Project Setting

The project site is located in the Antelope Valley, which is situated within the western portion of the Mojave Desert Geomorphic Province of California. The Antelope Valley is bounded on the southwest by the Portal Ridge, on the east by the Mojave Desert, and on the north by the Rosamond Hills. The San Andreas Fault trends northwest-southeast along Portal Ridge and through Palmdale Lake, forming the southern boundary of the valley. The Antelope Valley is a relatively flat alluvial plain surrounded by low residual bedrock peaks, ridges, and rounded domes reduced by erosion. The valley is underlain by unconsolidated alluvial fill, up to 2,000 feet thick.

Based on information obtained from the United States Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS) Web Soil Survey online database, the project site is mapped as Arizo gravelly loamy sand. The Arizo series consists of very deep, excessively drained soils that formed in mixed alluvium. Arizo soils are on recent alluvial fans, inset fans, fan apron, fan skirts, stream terraces, floodplains of intermittent streams, and channels. Slope ranges from 0 to 15 percent.

The site is currently vacant with no habitable structures and is disturbed with various [unauthorized] dirt

roadways traversing the property. The project site is generally characteristic of a disturbed California juniper habitat. Onsite topography consists of low rolling hills bisected by several north to south drainage features (California Aqueduct culverts), tributaries to Anaverde Creek to the north. Elevations on the project site range from 2,950 feet above mean sea level (AMSL) in the northwest to 3,100 feet AMSL in the southwest. Several onsite utilities and/or access easements affect the property. The eastern portion of the project site includes the remnants of an old homestead foundation. Evidence of illegal refuse dumping and onsite campfires is present throughout the project site.

Methodology

Records Search

As part of the Cultural Resource Survey prepared for the project, a record search of the project area and the environs within one-half mile was conducted at the South Central Coastal Information Center on November 14, 2022. This archival research reviewed the status of all recorded historic and prehistoric cultural resources, as well as survey and excavation reports completed within one-half mile of the proposed project site.

Tribal Consultation

In addition to the records search described above, a Sacred Lands File search was requested from the Native American Heritage Commission (NAHC) on October 9, 2024. The search revealed that no Native American cultural resources are located in close proximity to the current Project area. Although negative results were obtained from the Sacred Lands File search, which arrived on October 24, 2024, Native American consultation letters including the Project Description and associated maps were sent out, notifying each interested Los Angeles County Native Contact, per the list provided by the NAHC. As discussed in Section 5.18, *Tribal Cultural Resources,* in compliance with AB 52, the City distributed letters notifying each tribe that requested to be on the City's list for the purposes of AB 52 of the opportunity to consult with the City regarding the proposed project. The City communications to meet its AB52 obligations to the designated tribes included follow up emails to written correspondences and non-responses to distributed notices, direct telephone calls, and scheduled teleconference meetings with individual designated tribes via Microsoft Teams.

The following six tribes were included in the letter distribution, based on the list received by the NAHC in response to the Sacred Lands File:

- Fernandeno Tataviam Band of Mission Indians (FTBMI)
- Morongo Band of Mission Indians (MBMI)
- Quechan Tribe of the Fort Yuma Reservation
- San Fernando Band of Mission Indians (SFBMI)
- Yuhaaviatam of San Manuel Nation (YSMN) (formerly the San Manuel Band of Mission Indians)
- Serrano Nation of Mission Indians

Reponses were received via email from the FTBMI, MBMI, Fort Yuma Quechan Indian Tribe, SFBMI, and YSMN Tribes, which are discussed in detail in Section 5.18, *Tribal Cultural Resources*. Formal consultation was requested by the FTBMI, MBMI, SFBMI and YSMN Tribes; accordingly, Mitigation Measures TCR-1 through TCR-4 and Mitigation Measure CR-3 are required for the project in compliance with the Tribes' requests for mitigation and monitoring during ground disturbing activities. Refer to Section 5.18, *Tribal Cultural Resources,* for the full discussion of Tribal consultation associated with the project.

Field Survey

Between October 24 and 27, 2022, a pedestrian survey of the entire project area was conducted using standard archaeological procedures and techniques. The survey occurred in north/south transects at 15-

meter (33 feet) intervals. All archaeological material more than fifty years of age or earlier encountered during the inventory was recorded.

Results

The record search revealed that twenty-two cultural resource surveys have been conducted within one-half mile radius of the project area, including two surveys, which previously addressed the current project area. One of these projects is a right-of-way project along the project area's southern boundary; the remaining survey was a full survey of the property. Six cultural resources have been recorded within one half-mile of the current project area, including two historic sites and four prehistoric sites. One of the historic sites lies within the project area; it is a turn-of-the-twentieth century homestead that was excavated in 2004. The other historic site is the California Aqueduct that lies directly to the northern property line. The four prehistoric sites primarily contain a mix of flakes and groundstone.

During the field survey, two cultural resources were identified (CA-LAN-1845H and R-9). Specifically, the first site, CA-LAN-1845H, is a previously identified and mitigated historic trash scatter. The site dates to the turn of the twentieth century. The site currently consists of a small mound of twisted metal scraps and disintegrated domestic artifacts. The site was excavated in 2004, however, a portion of the site survived.

The second site, R-9, is the foundation of a two-roomed building. The foundation is constructed from aggregate and concrete. The foundation's height is adjusted to create a level floor, since the site is not level. Piers along the building's midline supported the floor joists. There are openings on both the north and south elevations for entrances; the main portion of the building was bolted to the foundation. The foundation predates 1958; uniquely a juniper is planted in each room, possibly purposefully to keep anyone from reusing the site for habitation.

a) Cause a substantial adverse change in the significance of a historical resource as defined in Section 15064.5?

No Impact. Based on the Cultural Resource Survey, both of the above-referenced potential cultural resources were evaluated against the eligibility criteria for listing resources in the CRHR as defined by CEQA Section 15064.5(a). However, both of the resources lack sufficient significance to meet any of the criteria for listing in the CRHR. To be eligible for listing in the CRHR, a resource must first meet one or more of the significance criteria outlined in the Cultural Resource Survey before a determination can be made as to whether the resource retains its historic character and is able to convey its significance. In the specific case of these resources, the evaluation determined that the resources within the project area are not eligible for listing in the CRHR, either individually or as a contributor to an existing or potential historic district, nor are they considered historical resources for the purposes of CEQA as defined under 14 CCR Section 15064.5(a). Therefore, no impact to historical resources would occur.

b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?

Less Than Significant Impact With Mitigation Incorporated. The Cultural Resource Survey did not identify any archaeological resources on the project area during the field investigation, and none are known to be associated with the site. However, project construction activities would have the potential to disturb unknown archaeological resources on the site, if present. In the unlikely event that archaeological resources are encountered during project construction, Mitigation Measures CR-1 and CR-2 would address the accidental discovery of resources during project development. Mitigation Measure CR-1 would require placement of a barrier and flagging for avoidance. Mitigation Measure CR-2

would require that, in the event of unanticipated subsurface discoveries, all work within 60 feet shall be halted until an archaeologist can evaluate the findings and make recommendations. Thus, with adherence to Mitigation Measures CR-1 and CR-2, potentially significant impacts to archaeological resources would be reduced to less than significant with mitigation incorporated.

Mitigation Measures

CR-1 **Archaeological Site Avoidance**. Any identified archaeological sites shall be avoided by project-related construction activities, where feasible. A barrier (temporary fencing) and flagging shall be placed between the work location and any resources within 60 feet of a work location to minimize the potential for inadvertent impacts.

CR-2 **Unanticipated Discovery of Archaeological Resources.** If archaeological resources or tribal cultural resources are encountered during ground-disturbing activities, work within 60 feet shall be halted and the project archaeologist meeting the SOI's Professional Qualification Standards for archaeology (National Park Service 1983) shall immediately to evaluate the find. If necessary, the evaluation may require preparation of a treatment plan and archaeological testing for CRHR eligibility. If the discovery proves to be significant under CEQA and cannot be avoided by the project, additional work may be warranted, such as data recovery excavation, to mitigate any significant impacts to historical resources. Any reports required to document and/or evaluate unanticipated discoveries shall be submitted to the City of Palmdale for review and approval. Recommendations contained therein shall be implemented throughout the remainder of ground disturbance activities.

c) Disturb any human remains, including those interred outside of dedicated cemeteries?

Less Than Significant Impact With Mitigation Incorporated. It is not anticipated that human remains or informal cemetery areas are present on the project site. However, ground-disturbing activities such as grading or excavation can potentially disturb human remains. Therefore, the project is required to implement Mitigation Measure CR-3, which states that, if human remains are found, those remains would require proper treatment in accordance with the California Public Resources Code Section 5097.98 and Health and Safety Code Sections 7050.5-7055, which describe the general provisions regarding human remains, including the requirements if any human remains are accidentally discovered during project construction. As required by State law, the procedures set forth in Section 5097.98 of the California Public Resources Code would be implemented, including notification of the County Coroner, notification of the NAHC, and consultation with the individual identified by the NAHC to be the "most likely descendant." With implementation of Mitigation Measure CR-3, impacts would be reduced to less than significant.

Mitigation Measures

CR-3 **Unanticipated Discovery of Human Remains.** If human remains or funerary objects are encountered during any activities associated with the project, work in the immediate vicinity (within a 100-foot buffer of the find) shall cease and the County Coroner shall be contacted pursuant to State Health and Safety Code §7050.5 and that code enforced for the duration of the project.

5.6 Energy

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

In 1975, largely in response to the oil crisis of the 1970s, the California Legislature adopted Assembly Bill (AB) 1575, which created the California Energy Commission (CEC). The statutory mission of the CEC is to forecast future energy needs, license thermal power plants of 50 megawatts or larger, develop energy technologies and renewable energy resources, plan for and direct state responses to energy emergencies, and—perhaps most importantly—promote energy efficiency through the adoption and enforcement of appliance and building energy efficiency standards.

The information and analysis herein rely on the following reports and technical data:

- *Air Quality and Greenhouse Gas Emissions Impact Analysis for Falcon Glen, Tentative Tract Map 54328, City of Palmdale, California* (AQ/GHG/Energy Impact Analysis), prepared by MS Hatch Consulting, dated March 2025, provided as Appendix A.

Under existing conditions, the project site is vacant and undeveloped; therefore, no energy is consumed on the project site under existing conditions. Energy consumption is analyzed in this IS/MND due to the potential direct and indirect environmental impacts associated with the proposed project. Such impacts include the depletion of nonrenewable resources (e.g., oil, natural gas, coal, etc.) and emissions of pollutants during both the short-term construction and long-term operational phases.

Energy Generation and Demand

According to the California Energy Commission (CEC), the total utility-scale electric generation for California was 287,220 gigawatt-hours (GWh) in 2022, up 3.4 percent from 2021. Utility-scale renewable generation increased 10.2 percent in 2022 to 102,853 GWh from 93,333 GWh in 2021. Solar generation increased 24.1 percent to 48,950 GWh in 2022 from 39,458 GWh in 2021. Renewable and non-GHG (nuclear and large hydroelectric) resources accounted for 54.2 percent of total generation, compared to 52.1 percent in 2021. In-state hydroelectric generation increased by 21 percent to 17,612 GWh in 2022, accounting for 8.7 percent of in-state generation compared to 7.5 percent in 2021. Overall, all hydroelectric generation including imports accounted for 10.4 percent of total system electric generation in 2022. Net imports for 2022 were unchanged from 2021 levels, accounting for 29.2 percent of total system electric generation.

As reported by the CEC, the total electricity direct consumption in California in 2020 was 279,510.001 GWh, down approximately three percent, compared to 288,281.751 GWh consumed in 2017. California electricity consumption in 2020 represented approximately 6.7 percent of total U.S. electricity consumption in 2020.

In 2022, California consumed 2,056,267 Million Cubic Feet of natural gas (approximately 21,596 million therms). In 2022, Los Angeles County used 68,485 GWh of electricity and 2820 million therms of natural gas.

Southern California Edison (SCE) provides electricity to the City of Palmdale and surrounding areas. In their territory, SCE old approximately 84.2 billion kilowatt-hours of electricity in 2022, up from 83.7 terawatt-hours the year prior. Approximately 35 percent of SCE's power mix was sourced from renewable resources, including solar, wind, eligible hydroelectric, and geothermal.

Los Angeles County Energy Usage

The electricity consumption attributable to residential land uses in the County from 2013 to 2022 is shown in **Table 11, Residential Electricity Consumption in Los Angeles County 2013-2022**. As indicated, the demand has only risen slightly, with no substantial increase, even as the population has increased.

Table 11: Residential Electricity Consumption in Los Angeles County 2013-2022

Year	Residential Electricity Consumption (in millions of kilowatt hours)
2013	20,618
2014	20,750
2015	20,443
2016	20,300
2017	20,673
2018	20,523
2019	20,688
2020	22,904
2021	22,092
2022	23,255

Source: Electricity and Natural Gas Consumption by County, ECDMS (California Energy Consumption Data Management System). Website: http://www.ecdms.energy.ca.gov/, accessed February 22, 2024.

The natural gas consumption attributable to residential land uses in Los Angeles County from 2013 to 2022 is shown in **Table 12, Residential Natural Gas Consumption in Los Angeles County 2013-2022**. Similar to electricity consumption, the demand has remained relatively constant with a slight decrease in use during this timeframe, even with an increase in population.

Table 12: Residential Natural Gas Consumption in Los Angeles County 2013-2022

Year	Residential Natural Gas Consumption (in millions of therms)
2013	1,322
2014	1,079
2015	1,085
2016	1,111
2017	1,115
2018	1,108
2019	1,236
2020	1,238

2021	1,138
2022	1,122
Source: Electricity and Natural Gas Consumption by County, ECDMS (California Energy Consumption Data Management System). Website: http://www.ecdms.energy.ca.gov/, accessed February 22, 2024.	

a) 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. The project's estimated energy consumption is summarized in **Table 13, Project Energy Consumption**. The analysis focuses on the three sources of energy that are relevant to the proposed project: electricity, natural gas, and transportation fuel/energy for vehicle trips associated with project operations and construction. The electricity and natural gas usage is provided by CalEEMod, which quantifies energy use for occupancy.

Construction fuel consumption includes fossil fuels that will be used for construction vehicles during site preparation, grading, paving, building construction and architectural coating. Construction fuel consumption was obtained by using CalEEMod's default construction equipment list (provided in the AQ/GHG/Energy Impact Analysis) to determine the fuel rate and total diesel gallons used.

Operational fuel consumption is separated into two categories: fossil fuel consumption from diesel, gasoline, and natural gas vehicles, and energy consumption from electric and plug-in hybrid vehicles. Operational fuel consumption was estimated using the California Air Resources Board's Emission Factor 2021 (EMFAC2021) online emissions model, which provides projections for typical daily fuel usage in the Antelope Valley Air Quality Management District (AVAQMD). The construction fuel estimates and operational fuel estimates resulting from EMFAC2021 modeling are included in the AQ/GHG/Energy Impact Analysis (Appendix B).

Table 13: Project Energy Consumption

Energy Type	Project Annual Energy Consumption
Operational Electricity Consumption	4,216 MWh
Operational Natural Gas Consumption	229,615 therms
Fuel Consumption	
• Construction (Heavy-Duty Diesel Vehicle) Fuel Consumption	455,418 gallons
• Operational Automotive Fuel Consumption (Diesel, Gasoline, Natural Gas Vehicles)	629,390 gallons
• Operational Automotive Energy Consumption (Electric and Plug-in Hybrid Vehicles)	967,747 kWh
Source: Source: MS Hatch Consulting, Air Quality and Greenhouse Gas Emissions Impact Analysis for Falcon Glen, Tentative Tract Map 54328, City of Palmdale, California, March 2025, Table 12, p. 37	

As discussed in the AQ/GHG/Energy Impact Analysis and quantified above, the proposed project would involve the use of energy during construction and operation. Energy use during construction would be short-term and primarily in the form of fuel consumption to operate heavy equipment, light-duty vehicles, machinery, and generators for lighting. Temporary grid power may also be provided to construction trailers or electric construction equipment.

Long-term operation would require permanent grid connections for electricity. Consistent

with the Climate Action Plan, or the Sustainability, Climate, and Resilience chapter of the City's General Plan, the use of natural gas would be minimized or eliminated, if possible. The overall vehicle energy consumption would likely decrease since the project would fill a void in the continuum of housing options in the City to provide for a variety of housing types closer to businesses and services. Therefore, the project would not result in a potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation and impacts would be less than significant.

b) Conflict with or obstruct a State or local plan for renewable energy or energy efficiency?

Less Than Significant Impact. The 2022 Building Energy Efficiency Standards for Residential and Nonresidential Buildings (California Code of Regulations, Title 24, Part 6 and 11), commonly referred to as "Title 24," were adopted by the California Energy Commission (CEC) and became effective on January 1, 2023. Title 24 requires the design of building shells and building components to conserve energy reducing wasteful and unnecessary energy consumption in newly constructed and existing buildings. The 2022 update to the Building Energy Efficiency Standards focuses on several key areas to improve the energy efficiency of newly constructed buildings and additions and alterations to existing buildings. The most significant efficiency improvements to the residential standards include the introduction of photovoltaic electricity generation into the prescriptive package in addition to improvements for attics, walls, water heating, and lighting. Compliance with the most recent 2022 standards would substantially reduce Statewide electricity and natural gas consumption.

Additionally, the California Green Building Code "CAL Green" (California Code of Regulations, Title 24, Part 11) is a mandatory construction code requiring new residential buildings to comply with mandatory measures. The purpose of the CAL Green Code is to "improve public health, safety and general welfare by enhancing the design and construction of buildings through the use of building concepts having a positive environmental impact and encouraging sustainable construction practices in the following five topical areas: planning and design; energy efficiency; water efficiency and conservation; material conservation and resource efficiency; and environmental quality." The project would also be designed to comply with the measures of the City of Palmdale Energy Action Plan (adopted August 2011).

Based on the AQ/GHG/Energy Impact Analysis, the proposed project is consistent with State and local renewable energy and energy efficiency plans, for the following reasons:

- The project is proposed to be built in a vacant location, near existing services. As such, the project would result in lower VMT and an overall reduction in petroleum demand, as required by Assembly Bill 2076.
- The project would be required to comply with Palmdale Municipal Code (PMC) Chapter 8.04, *Adoption of Health, Safety and Technical Construction Codes*, which mandates implementation of Title 24. Therefore, the project would not conflict with or obstruct implementation of Title 24 standards.
- SCE supplies electricity in the project area and is required to generate electricity that would increase renewable energy resources to 60 percent by 2030 and 100 percent by 2045. Because SCE would supply power to the project, the project would not conflict with or obstruct implementation of the California Renewable Portfolio Standard.
- The project would be consistent with the City's Energy Action Plan, since it would be required to comply with PMC Chapter 8.04, *Adoption of Health, Safety and Technical*

Construction Codes, which mandates implementation of Title 24. Electricity would be provided by SCE or EPIC which source some or all its power from renewable sources.

- The project would not interfere with or obstruct the production of biofuels in California. Vehicles used by residents of the project would be fueled by gasoline and diesel fuels blended with ethanol and biodiesel fuels as required by CARB regulations. Therefore, the project would not conflict with or obstruct implementation of the Bioenergy Action Plan or the State Alternative Fuels Plan.
- The project would be consistent with the City's Energy Action Plan by integrating CALGreen green building and energy efficiency standards into the construction and planting trees along sidewalks (e.g., along Avenue S), in parks, and in other public spaces to provide shade.
- The project would be consistent with the City's Energy Action Plan by reducing vehicle emissions by maintaining and improving traffic flow.

As demonstrated above, the project would not conflict with or obstruct a state or local plan for renewable energy or energy efficiency and impacts would be less than significant.

5.7 Geology / Soils

Would the proposed project:					
	Issues	Potentially Significant Impact	Less Than Significant Impact with Mitigation Incorporated	Less Than Significant Impact	No Impact
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?		✓		
	ii) Strong seismic ground shaking?		✓		
	iii) Seismic-related ground failure, including liquefaction?			✓	
	iv) Landslides?				✓
b)	Result in substantial soil erosion or the loss of topsoil?			✓	
c)	Be located on a geologic unit or soil that is unstable, or that would become unstable because of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse?			✓	
d)	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?			✓	
e)	Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?				✓
f)	Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?		✓		

The information and analysis herein rely on the following investigations and collectively document the geological conditions of the project area:

- *Geotechnical Engineering Report, Tract 54328, Avenue S and 15th Street West, Palmdale, California, Los Angeles County, California* (Geotechnical Report), prepared by Earth Systems Southern California, dated January 5, 2005, provided as Appendix D1.
- *Geotechnical Report Update, Tract 54328, Avenue S and 15th Street West, Palmdale, California, Los Angeles County* (Geotechnical Report Update), prepared by Bruin Geotechnical Services, Inc., dated May 3, 2016, provided as Appendix D2.
- *A Phase I Cultural Resource Survey, Falcon Glen, 15th Street West and Avenue S, Tentative Tract Map 50428, City of Palmdale, California*, (Cultural Resource Survey) prepared by Hudlow Cultural Resource Associates, dated November 2022, revised October 2024, provided as Appendix C.

Geologic Setting

According to the General Plan EIR Geology and Soils discussion, the City is located in the southern part of the Mojave geomorphic province. The Mojave is a broad interior region of isolated mountain ranges separated by stretches of desert plains. There are two important fault trends that control topography in the Mojave: a prominent northwest-southeast trend and a secondary east-west trend (apparent alignment with Transverse Ranges is significant). The Mojave province is wedged in a sharp angle between the Garlock Fault (southern boundary Sierra Nevada) and the San Andreas Fault, where it bends east from its northwest trend. The northern boundary of the Mojave is separated from the prominent Basin and Range geomorphic province by the eastern extension of the Garlock Fault.

Soils and Geologic Conditions

Soils encountered in the project area during the field investigation conducted as part of the *Geotechnical Report* consisted of Quarternary Younger Alluvium (Qal) and Quarternary Older Alluvium (Qof), Quaternary Slopewash Deposits (Qsw) and Artificial Fill (af), as well as bedrock conditions consisting of Pre-Tertiary Pelona Schist (pls), described below:

Pelona Schist (pls): This unit consisted of silver to dark gray to moderate brown, fine to medium grained, well to moderately foliated, jointed quartz muscovite schist. The bedrock is variably fractured, soft to moderately hard, and moderately to moderately severely weathered. The unit crops out in the southwestern portion of the site where it forms moderately steep, hilly terrain. Previous experience with this unit indicates that thin clay zones in the Pelona Schist may have a medium or higher expansion potential.

Quarternary Younger Alluvium (Qal): The younger alluvium consists of moderate to dark yellowish brown silty fine to medium sand to fine to medium sandy silt with varying amounts of clay and gravel. The younger alluvium represents stream channel deposits and the accompanying overbank deposits. The younger alluvium was encountered in the valleys and drainages throughout the project site.

Quarternary Older Alluvium (Qof): The older fan deposit is moderate yellowish brown to dark yellowish brown silty fine to medium sand with clay and gravel. The deposit is massive, voided and slightly moist. The upper two to three feet has been subjected to moderate to heavy bioturbation, as the result of animal burring and/or root penetration. The material underlying this bioturbated zone is a moderately to well consolidated 2- to 3-foot-thick zone of moderate red brown clay illuviation, in which clay coatings on grain surfaces are well developed, and a poorly developed prismatic soil structure is locally discernible. The older fan deposit is located throughout the majority of the project site and is considered to be pre-Holocene in age.

Quaternary Slopewash Deposits (Qsw): The slopewash deposits consist of moderate to dark yellowish brown unconsolidated sand, gravel and silt that mantel several of the on-site slopes. The slopewash drapes over or intermingles with the alluvium.

Artificial Fill (af): The artificial fill consists of materials derived from local sources for use in construction of roads. Most of the fill deposits observed appeared to be less than five feet thick.

Faults and Seismicity

The project site is located in a seismically active area typical of Southern California and likely to be subjected to strong ground shaking due to earthquakes on nearby faults. Specifically, the project site is located within one mile of the active San Andreas Fault. The San Andreas Fault zone is the largest active fault rift zone, which is several miles wide, and passes through the Antelope Valley, north of the project site, extending from the Gulf of Mexico through the western portion of the State of California to a point at Cape Mendocino in northern California. The San Andreas Fault is predicted to have an event every 100-200 years based on geologic records. The San Andreas Fault has had two major eruptions in the last 150 years: 1) in the Southern California area in 1857, and 2) in San Francisco in 1906. In each event, approximately 320 kilometers of surface rupture occurred, as well as a horizontal displacement of approximately 9 meters. Additional faulting has occurred adjacent to the San Andreas Fault causing numerous events of various magnitudes throughout the length of the San Andreas Fault.

The project site is located in an area in which active seismic occurrences are recorded on a yearly basis. Seismic studies conducted show a major break along the San Andreas Fault could be responsible for an event of approximately 8.4 on the Richter scale. A seismic event of this magnitude could cause bedrock accelerations as large as 0.5g.[1] Events of this magnitude are anticipated to occur approximately every 150 years. The last occurrence of this magnitude was in 1857.

Based on the *Geotechnical Report*, no known active faults have been mapped across the project site; this was verified through trenching. However, according to current publications by the State of California, the project site is located within the Alquist-Priolo special studies zone.

Groundwater

Free groundwater or perched water was not encountered in the borings conducted for the *Geotechnical Report*. However, free groundwater was encountered at depths ranging from 25 to 32 feet in borings at the time of a previous geological site study conducted onsite. These borings were drilled within drainages located in the northern part of the site, adjacent to the California Aqueduct. Other borings located at higher elevations were drilled to a maximum depth of approximately 40 feet and revealed no groundwater. Due to the presence of relatively shallow bedrock, it is likely that perched groundwater conditions at the alluvium/bedrock contacts could develop in the future due to changes in climate, irrigation, and grading.[2]

Liquefaction

Liquefaction is a seismic phenomenon in which loose, saturated, granular (non-cohesive) soils react as a fluid when subject to high-intensity ground shaking. Research and historical data indicate loose to medium dense granular soils with a specific range of grain size distribution, saturated by a relatively shallow groundwater table are most susceptible to liquefaction. The effects of liquefaction on level ground include settlement, sand boils and bearing capacity failures below structures.

In view of the relatively firm silty sand and bedrock present at the site, relative densities, and depth to groundwater, the *Geotechnical Report Update* indicates that the potential for on-site liquefaction or seismically induced dynamic settlement is not probable.

Landslides

The project site and surrounding area is generally flat with gentle downward sloping from a southerly to northerly direction and is not located near to any adjacent hillside topography. According to the General Plan

[1] "G" is the acceleration due to gravity on the surface of the Earth.

[2] Perched groundwater is an isolated, unconfined body of groundwater, separated from the primary groundwater by one or more layers of unsaturated soil or rock material.

EIR Geology and Soils discussion, landslide zones in the City are predominantly located west of SR-14 in the Sierra Pelona Mountains. According to Figure 4.7-4, *Slope Map of Palmdale*, in the General Plan EIR, the project site is located within a slope area of less than 5 degrees.

Paleontological Resources

As discussed in the project's *Cultural Resource Survey*, a paleontological record search of the project area and the environs was conducted at the Natural History Museum of Los Angeles County on February 18, 2024. The record search revealed that no paleontological finds have occurred within the project area; however, paleontological sites have been located nearby within the identical sedimentary deposits that occur within the project area.

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?

   ii) Strong seismic ground shaking?

Less Than Significant Impact With Mitigation Incorporated. The project is located within a seismically active region. Based on the *Geotechnical Report* conducted for the project area, the project site is located within one mile of the active San Andreas Fault. The San Andreas Fault zone is the largest active fault rift zone, which is several miles wide, and passes through the Antelope Valley, north of the project site, extending from the Gulf of Mexico through the western portion of the State of California to a point at Cape Mendocino in northern California. The San Andreas Fault is predicted to have an event every 100-200 years based on geologic records. In addition, the project site is located within the Alquist-Priolo special studies zone. Therefore, the project could potentially result in the risk of loss, injury, or death involving rupture of a known earthquake fault and/or strong seismic ground shaking, and mitigation is required.

As a standard condition of the City, all project structures would be constructed pursuant to the most current CBC seismic building design and construction standards, as determined by the City as part of the grading plan and building permit review process. In addition, Mitigation Measure GEO-1 requires the implementation of site-specific engineering recommendations provided in the Geotechnical Report Update, pursuant to approval by the City of Palmdale Building and Safety Division. With implementation of Mitigation Measure GEO-1, project impacts related to fault rupture and seismic ground shaking would be less than significant with mitigation incorporated.

Mitigation Measures

GEO-1 The project shall comply with the established site-specific engineering recommendations provided in the *Geotechnical Report Update* to attenuate seismic-related hazards, and all grading operations, including site clearing and stripping, shall be observed by an onsite representative of the project's geotechnical engineer. All final plans shall be reviewed by the City of Palmdale's Public Works Department (Engineering Division) and Building and Safety Division to verify that the *Geotechnical Report's* engineering recommendations have been incorporated, as necessary.

iii) Seismic-related ground failure, including liquefaction?

Less Than Significant Impact. The *Geotechnical Report Update* concluded that, in view of the relatively firm silty sand and bedrock present at the site, relative densities, and depth to groundwater, the potential for on-site liquefaction or seismically induced dynamic settlement is not probable. As such, due to the lack of potential liquefaction hazards and the geotechnical conditions of the project site, the potential for seismic-related ground failure is considered low. Impacts would be less than significant.

iv) Landslides?

No Impact. The project site and surrounding area is generally flat with gentle downward sloping from a southerly to northerly direction and is not located near to any adjacent hillside topography, and is located within a slope area of less than 5 degrees. The engineering recommendations of the *Geotechnical Report Update* would be incorporated into site development and grading, which would ensure that landslide risks would not occur. No impact would occur.

b) Result in substantial soil erosion or the loss of topsoil?

Less Than Significant Impact. The primary concern in regard to soil erosion or loss of topsoil would be from construction activities associated with the project, which could expose soils to short-term erosion by wind and water. Soil disturbance would temporarily occur during earth-moving activities such as excavation and trenching for foundations and utilities, soil compaction, and grading. Disturbed soils would be susceptible to high rates of erosion from wind and rain, resulting in sediment transport via stormwater runoff from the project site.

Pursuant to the requirements of the State Water Resources Control Board (SWRCB), the project would be subject to the requirements of the National Pollutant Discharge Elimination System (NPDES) Construction General Permit, which would be obtained prior to the start of grading and construction. As part of the permit requirements, a Stormwater Pollution Prevention Plan (SWPPP) would be prepared to include Best Management Practices (BMPs) that would be designed to prevent soil erosion and the discharge of turbidity sediments into the local storm drains during the project construction phase. Proposed construction activities would be required to comply with applicable City ordinances including PMC Section 8.04.265, Chapter 70, *Excavation and Grading*, to preclude potential erosion hazards. Therefore, project conformance with the NPDES and PMC requirements, impacts concerning substantial soil erosion and loss of topsoil would be less than significant.

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?

Less Than Significant Impact. Liquefaction potential is defined as the loss of soil strength because of increased pore water pressure due to dynamic earthquake loading. Soil types most susceptible to liquefaction are loose, saturated silty to clean fine sands. Portions of the project site are located within a defined liquefaction hazard zone as shown on the Ritter Ridge Quadrangle. Lateral spreading occurs when large blocks of intact, non-liquefied soil move downslope on a liquefied soil layer. Lateral spreading is often a regional event. For lateral spreading to occur, the liquefiable soil zone must be unconstrained laterally and free to move along sloping ground.

As discussed in the *Geotechnical Report*, soils encountered in the project area during the field investigation conducted as part of the *Geotechnical Report* consisted of Quarternary Younger Alluvium (Qal) and Quarternary Older Alluvium (Qof), Quaternary Slopewash

Deposits (Qsw) and Artificial Fill (af), as well as bedrock conditions consisting of Pre-Tertiary Pelona Schist (pls). The site is relatively flat and not located in an area where landslides or lateral spreading would typically occur. The project site is not located on soil that is unstable or could become unstable as a result of the project and implementation of the engineering recommendations provided in the *Geotechnical Report Update* would ensure that no structures are constructed on unstable geological units. This impact would be less than significant.

d) 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?

Less Than Significant Impact. Expansive soils are those that undergo volume changes as moisture content fluctuates, swelling substantially when wet or shrinking when dry. Soil expansion can damage structures by cracking foundations, causing settlement, and distorting structural elements. According to the Geotechnical Report, soil types shown on the boring logs consisted of gravelly sands (SP) and occasional silty sand (SM). The reports indicated the upper alluvium is subject to hydro-consolidation and has very low to low expansion potential; specifically, the on-site soils are in the "very low" (0-20) expansion index classification. Regardless, the *Geotechnical Report Update* recommends remedial grading and excavation of soils three (3) to four (4) feet in depth to be re-compacted and to incorporate over-excavation and re-compaction to the upper soils and implement foundation design criteria.

Therefore, with implementation of the design specifications provided in the Geotechnical Report Update relative to expansive soils as specified above, the project would not result in substantial direct or indirect risks to life or property due to expansive soils. This impact would be less than significant.

e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?

No Impact. No septic tanks or alternative wastewater systems would be constructed as part of the project. No impact would occur.

f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

Less Than Significant Impact With Mitigation Incorporated. Paleontological resources are the preserved fossilized remains of plants and animals. Fossils and traces of fossils are preserved in sedimentary rock units, particularly fine- to medium-grained marine, lake, and stream deposits, such as limestone, siltstone, sandstone, or shale, and in ancient soils (paleosols). Such resources are also found in coarse-grained sediments, such as conglomerates or coarse alluvium sediments. Fossils are rarely preserved in igneous or metamorphic rock units. Fossils may occur throughout a sedimentary unit and are more likely to be preserved subsurface, where they have not been damaged or destroyed by previous ground disturbance, amateur collecting, or natural causes such as erosion. In contrast, archaeological and historic resources are often recognized by surface evidence of their presence.

As discussed in the project's *Cultural Resource Survey*, a paleontological record search of the project area and the environs was conducted at the Natural History Museum of Los Angeles County on February 18, 2024. The record search revealed that no paleontological finds have occurred within the project area; however, paleontological sites have been located nearby within the identical sedimentary deposits that occur within the project area.

According to the Environmental Resources Element of the Palmdale General Plan, a Palaeontologic Sensitivity Study for the Palmdale area was prepared in April 1990 by Robert E. Reynolds, the curator of Earth Sciences at the San Bernardino County Museum. Twelve rock units were identified and categorized into three classifications. The three classifications, high sensitivity/potential, unknown sensitivity/potential, and low sensitivity/potential for resources were based on the assessment of the identified and potential paleontological resources in the rock units. General Plan Environmental Resources Element Exhibit ER-8, *Paleontological Sensitivity Map*, indicates the paleontological sensitivity of the Palmdale Planning Area. Based on this exhibit, the project site is located within an area designated as "undetermined" for paleontological sensitivity.

In general, the potential for a given project to result in negative impacts to paleontological resources is directly proportional to the amount of ground disturbance associated with the project; thus, the higher the amount of ground disturbances within geological deposits with a known paleontological sensitivity, the greater the potential for negative impacts to paleontological resources. As part of project construction, the project site would be subject to ground-disturbing activities associated with site grading activities. Therefore, ground-disturbing activities conducted on the project site may result in significant impacts to previously undiscovered paleontological resources, such as destruction, damage, or loss of scientifically important paleontological resources. This is considered a potentially significant impact for which mitigation would be required. Mitigation Measure GEO-2 outlines the procedural requirements, in the event that paleontological resources are unearthed during excavation and grading activities. Potential impacts to paleontological resources attributed to the project would be reduced to less than significant with adherence to Mitigation Measure GEO-2.

Mitigation Measure

GEO-2 In the event that archeological and/or paleontological resources are unearthed during excavation and grading activities associated with project development, the contractor shall cease all earth-disturbing activities within a 100-meter radius of the area of discovery and shall retain a qualified paleontologist to evaluate the significance of the finding and appropriate course of action. Salvage operation requirements pursuant to Section 15064.5 of the CEQA Guidelines shall be followed. Work within the area of discovery shall resume only after the resource has been appropriately mitigated.

5.8 Greenhouse Gas Emissions

Would the proposed project:					
	Issues	Potentially Significant Impact	Less Than Significant Impact with Mitigation Incorporated	Less Than Significant Impact	No Impact
a)	Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?			✓	
b)	Conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases?			✓	

The information and analysis herein rely on the following reports and technical data:

- *Air Quality and Greenhouse Gas Emissions Impact Analysis for Falcon Glen, Tentative Tract Map 54328, City of Palmdale, California* (AQ/GHG/Energy Impact Analysis), prepared by MS Hatch Consulting, dated March 2025, provided as Appendix A.

Introduction

The U.S. Environmental Protection Agency (USEPA) has specifically identified the most important greenhouse gases (GHGs) directly emitted by humans as carbon dioxide (CO2), methane (CH4), nitrous oxide (N2O), and several fluorine-containing halogenated substances, including hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), sulfur hexafluoride (SF6), and nitrogen trifluoride. These gases influence global climate by trapping heat in the atmosphere that would otherwise escape to space. Slight changes in the average temperatures can be accompanied by an increase in severe weather events such as storms, droughts, ecosystem change, loss of plant and animal species, stresses to human health, and alterations in regional agricultural productivity. According to the USEPA, GHGs from human activities are the most significant driver of observed climate change since the mid-20th century.

GHGs have varying global warming potential (GWP). GWP is a measure of how much energy the emissions of 1 ton of a gas will absorb over a given period of time (usually 100 years), relative to the emissions of 1 ton of CO2. The reference gas for GWP is CO2; therefore, CO2 has a GWP of 1. The other main GHGs that are the most common GHGs that result from human activity include CH4, which is estimated to have a GWP of 27–30 over 100 years; N2O, which has a GWP of 273. CO2; and to a lesser extent, CH4 and N2O, which are products of combustion and are generated from stationary combustion sources. High GWP gases include GHGs that are used in refrigeration/cooling systems, such as chlorofluorocarbons and hydrofluorocarbons.

Greenhouse Gases

CO2 is the most common of the six targeted GHGs, caused anthropogenically by the burning of fossil fuels and deforestation. CH4 is produced through the anaerobic decomposition of waste in landfills, animal digestion, decomposition of animal wastes, production and distribution of natural gas and petroleum, coal production, and incomplete fossil fuel combustion. N2O is generated as a result of soil cultivation practices, particularly the use of commercial and organic fertilizers, fossil fuel combustion, nitric acid production, and biomass burning. HFCs are primarily used as refrigerants, consisting of gas molecules containing hydrogen,

fluorine, and carbon atoms. PFCs consist of a class of gases containing carbon and fluorine originally introduced as alternatives to ozone-depleting substances and typically emitted as by-products of industrial and manufacturing processes. SF6 is primarily used in electrical transmission and distribution systems.

Sources of Greenhouse Gas Emissions

GHGs are emitted from a variety of activities, ranging from the combustion of fuels and other materials to leaking gases and chemical reactions. GHG emissions are grouped into three "Scopes" by the regulations:

- Scope 1: Direct Emissions
  - Stationary combustion (e.g., boilers),
  - Mobile combustion (e.g., motor vehicles),
  - Fugitive (e.g., landfill leakage and refrigerants),
  - Process (e.g., wastewater treatment);
- Scope 2: Indirect Emissions (e.g., electricity and steam imports); and
- Scope 3: Emissions that do not fall into Scope 1 or 2 but are the result of the facility's existence (e.g., employee commuting, deliveries.

California Air Resources Board Scoping Plan

In January 2017, the California Air Resources Board (CARB) issued the proposed 2017 Scoping Plan update to reflect the 2030 target set by EO B-30-15 and codified by SB 32. The draft Scoping Plan was developed with input by the Environmental Justice Advisory Committee and other stakeholders. On December 15, 2022, CARB adopted the 2022 Scoping Plan. The 2022 updated Scoping Plan lays out the sector-by-sector roadmap for California to achieve carbon neutrality by 2045 or earlier, to minimize the impacts of climate change. The previous Scoping Plan updates focused on specific GHG reduction targets for industrial, energy, and transportation sectors – first to meet 1990 levels by 2020, then to meet the more aggressive target of 40 percent below 1990 levels by 2030. The 2022 plan, extends and expands upon these earlier plans with a target of reducing anthropogenic emissions to 85 percent below 1990 levels by 2045. Appendix D of the 2022 Scoping Plan includes recommendations for local governments actions that align with the State' s climate goals, with a focus on local GHG reduction strategies and approval of new land use development projects, including through environmental review under CEQA.

Antelope Valley Air Quality Management District GHG Thresholds

AVAQMD has established four evaluation criteria to determine whether a project is significant. In general, the emissions comparison (criteria number 1) is sufficient.

1. Generates total emissions (direct and indirect) in excess of the thresholds given in **Table 14, AVAMQD Significant GHG Emissions Thresholds**.

2. Generates a violation of any ambient air quality standard when added to the local background.

3. Does not conform with the applicable attainment or maintenance plan(s).

4. Exposes sensitive receptors 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) (noncancerous) greater than or equal to 1.

Table 14: AVAMQD Significant GHG Emissions Thresholds

Criteria Pollutant	Annual Threshold (tons)	Daily Threshold (pounds)
Greenhouse Gases (CO2e)	100,000	548,000
Carbon Monoxide (CO)	100	548
Oxides of Nitrogen (NOx)	25	137
Volatile Organic Compounds (VOC)	25	137
Oxides of Sulfur (SOx)	25	137
Particulate Matter (PM10)	15	82
Particulate Matter (PM2.5)	12	62
Hydrogen Sulfide (H2S)	10	54
Lead (Pb)	0.6	3

Source: MS Hatch Consulting, Air Quality and Greenhouse Gas Emissions Impact Analysis for Falcon Glen, Tentative Tract Map 54328, City of Palmdale, California, March 2025, Table 7, p. 31

a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?

Less Than Significant Impact. Project-related GHG emissions would include emissions from direct and indirect sources resulting from the construction and operation of the proposed project. Direct project-related GHG emissions include emissions from construction activities and mobile sources, while indirect sources include emissions from area sources, electricity consumption, water demand, and solid waste generation. Operational GHG estimations are based on energy emissions from natural gas usage and automobile emissions. Project GHG emissions were calculated using CalEEMod, which relies on trip generation data and specific land use information to calculate emissions.

Based on the project's AQ/GHG/Energy Impact Analysis, **Table 15, Annual Construction and Operational GHG Emissions Summary**, presents the project's annual GHG emissions from construction and operation of the proposed project. As shown in **Table 15**, the project's annual GHG emissions of 9,916 CO2e MT/Year are well below the applicable threshold of 100,000 CO2e MT/Year.

In addition, **Table 16, Maximum Daily Construction and Operational GHG Emissions Summary**, presents the project's maximum daily GHG emissions from construction and operation of the proposed project. As shown in **Table 16**, the project's maximum daily GHG emissions of 64,020 CO2e are also well below the applicable threshold of 548,000 CO2e.

Therefore, the proposed project would not generate GHG emissions, either directly or indirectly, that would have a significant impact on the environment and impacts would be less than significant.

Table 15: Annual Construction and Operational GHG Emissions Summary

Emissions Source	CO2e MT/Year
Construction Emissions	
Year 1 (2026)	530
Year 2 (2027)	1,713
Year 3 (2028)	362
Year 4 (2029)	918
Year 5 (2030)	904
Year 6 (2031)	891
Year 7 (2032)	917
Year 8 (2033)	397
Operational Emissions	
Mobile	7,002
Area	9
Energy	2,627
Water	102
Waste	175
Refrigerants	2
Total Operational Emissions	**9,916**
Significant Emissions Threshold	**100,000**
Exceeds Threshold?	**No**

Source: MS Hatch Consulting, Air Quality and Greenhouse Gas Emissions Impact Analysis for Falcon Glen, Tentative Tract Map 54328, City of Palmdale, California, March 2025, Table 8, p. 32

Table 16: Maximum Daily Construction and Operational GHG Emissions Summary

Emissions Source	CO2e
Construction Emissions	
Year 1 (2026)	14,655
Year 2 (2027)	14,516
Year 3 (2028)	14,270
Year 4 (2029)	8,068
Year 5 (2030)	7,939
Year 6 (2031)	7,819
Year 7 (2032)	8,500
Year 8 (2033)	8,388
Operational Emissions	
Mobile	46,367
Area	108
Energy	15,865
Water	613
Waste	1,057
Refrigerants	10
Total Operational Emissions	**64,020**
Significant Emissions Threshold	**548,000**
Exceeds Threshold?	**No**

Source: MS Hatch Consulting, Air Quality and Greenhouse Gas Emissions Impact Analysis for Falcon Glen, Tentative Tract Map 54328, City of Palmdale, California, March 2025, Table 9, p. 33

b) Conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

Less Than Significant Impact. Based on the AQ/GHG/Energy Impact Analysis, the proposed project would not result in any conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of GHGs for the following reasons:

- The project would not impede the State's progress towards carbon neutrality by 2045 under the 2022 Scoping Plan since the project would be required to comply with applicable current and future regulatory requirements promulgated through the 2022 Scoping Plan. These include Advanced Clean Cars II, Advanced Clean Trucks, Advanced Clean Fleets, Zero Emission Forklifts, and Amendments to the In-use Off-Road Diesel-Fueled Fleets Regulation.
- The project would fill a void in the continuum of housing options in the City of Palmdale and fulfill an objective of the General Plan Update to provide for a variety of housing types. In addition, this proposed diversity of housing types will serve varying household types.
- The project would be consistent with the 2020-2045 Regional Transportation Plan/Sustainable Communities Strategy, Land Use Policies, by implementing the following measures:
    - Enhancing pedestrian, bike, and vehicle circulation through connection of adjacent roadways and sidewalks to the Anaverde Nuevo neighborhood.
    - Providing three points of trail access along Avenue S to provide residents outside of Falcon Glen the opportunity to use the trail system.
    - Installing sidewalks with shade trees along Avenue S to promote pedestrian

circulation.
- Adding new public parks for the citizens of Palmdale, including trailheads along the Aqueduct Trail.
- Planting additional trees on streets, parks, and other public spaces to sequester carbon, provide shade, contribute to stormwater management, provide habitat, and enhance community character.
- Including design features related to water and solid conservation that would further reduce project GHG emissions.

As demonstrated above, the project would not conflict with an applicable plan, policy or regulation adopted for the purpose of reducing GHG emissions and impacts would be less than significant.

5.9 Hazards and Hazardous Materials

Would the proposed project:					
	Issues	**Potentially Significant Impact**	**Less Than Significant Impact with Mitigation Incorporated**	**Less Than Significant Impact**	**No Impact**
a)	Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?			✓	
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?			✓	
c)	Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?			✓	
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?				✓
e)	For a project located within an airport land use plan or, where such a plan has not been adopted, within 2 miles or a public airport or public use airport, result in a safety hazard for people residing or working in the project area? For a project within the vicinity of a private airstrip, result in a safety hazard for people residing or working in the project area?				✓
f)	Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?			✓	
g)	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?		✓		

The information and analysis herein rely on the following investigations and collectively document the conditions of the project site regarding hazards and hazardous materials. The results of the regulatory records search, user-provided information and interviews, and site reconnaissance that were conducted as part of the Phase I Environmental Site Assessment (ESA) are summarized below. No changes in the uses on the project site have occurred since 2022 when the Phase I ESA was completed. The Phase I ESA concluded that no Recognized Environmental Conditions (RECs), Controlled Recognized Environmental Conditions (CRECs), or Historical Recognized Environmental Conditions (HRECs) were identified on the project site or in the project area.

- *Phase I Environmental Site Assessment, Falcon Glen TTM 54328, Tovey Avenue & West Avenue S, Palmdale, California 93551* (Phase I ESA), prepared by Partner Engineering and Science, Inc., dated October 27, 2022, provided as Appendix E.

Environmental Site Assessment Results

Regulatory Records Search

The project site was not identified within the standard radius database search of Federal, State, local, and proprietary records that was conducted for the Phase I ESA using the regulatory database report provided by Environmental Risk Information Services (ERIS). Additionally, no sites of concern were identified.

An adjoining property to the south (identified as NRC/AJ Fistes at the intersection of West Avenue S and Tovey Street) located adjoining to the south of the project site (hydrologically upgradient) is identified as a California Hazardous Material Incident Report System (CHMIRS) and Facility and Manifest Data (HAZNET) site in the regulatory database report. According to the listings, a release of natural gas occurred in 2014 due to a large number of local outages. Southern California Gas Company completed an investigation, the system was purged and re-started, and the incident was deemed "closed." Due to the isolated nature of the incident as well as the gaseous nature of the material released, this listing is not expected to represent an REC and it is unlikely that a regulatory agency file review would alter the overall findings of this assessment. The HAZNET listing for AJ Fistes indicates that the site was a temporary hazardous material generator in 2000 only. The permit has since expired. No violations were reported in connection with this listing and this site is not identified on any database that reports spills or releases, such as the Leaking Underground Storage Tank (LUST) database. Based on the absence of a reported release, this listing is not expected to represent an REC.

Site Reconnaissance

According to the Phase I ESA, no potential environmental concerns were identified during the site reconnaissance. No solid waste is currently generated at the project site and no evidence of illegal dumping was observed at the time of the reconnaissance. There are no sanitary discharges from the site; however, the County of Los Angeles and the City service the public sewer in the vicinity of the site. No wastewater treatment facilities or septic systems are located on the site. Stormwater is removed from the site primarily by percolation through onsite soil and several stormwater culverts are located along the site perimeter. No surface impoundments, natural catch basins, settling ponds, or lagoons were observed on the site. No aboveground evidence of wells or cisterns was observed.

No hazardous substances or petroleum products were observed on the project site during the site reconnaissance, and no evidence of current or former aboveground storage tanks (ASTs) or underground storage tanks (USTs) was observed. No spills, stains or other indications that a surficial release has occurred at the site were observed. There were observations of outdoor pole-mounted transformers and other hydraulic equipment that may contain Polychlorinated Biphenyls (PCBs) located along the site's southern boundary. However, no staining or leakage was observed in the vicinity of the transformers. Based on the good condition of the equipment, the transformers are not expected to represent a significant environmental concern. No drains, sumps, or clarifiers, other than those associated with storm water removal, were observed on the site.

a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?

Less Than Significant Impact.

Construction Impacts

Project construction could expose construction workers and the public to temporary hazards related to the transport, use, and maintenance of construction materials (i.e., oil, diesel fuel, and transmission fluid) and/or import/export of soils. Project construction activities would comply with the applicable laws and regulations governing the use, storage, and transportation of hazardous materials/waste, ensuring that potentially hazardous materials are used and handled appropriately. Impacts concerning the routine transport, use, or disposal of hazardous materials during project construction would be less than significant.

Operational Impacts

Hazardous materials are not typically associated with residential uses. Anticipated hazardous materials use may include cleaning products using pesticides and herbicides for landscape maintenance. Compliance with applicable laws and regulations governing the use, storage, and transportation of hazardous materials would ensure that potentially hazardous materials are used and handled appropriately and would minimize the potential for safety impacts to occur. As such, impacts concerning the routine transport, use, or disposal of hazardous materials during project operations would be less than significant.

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?

Less Than Significant Impact.

Construction Impacts

During project construction, there is a possibility of accidental release of hazardous substances such as petroleum-based fuels or hydraulic fluids used for construction equipment. The level of risk associated with the accidental release of hazardous substances is not considered significant due to the small volume and low concentration of hazardous materials utilized during construction. As required by various State laws, the construction contractor must use standard construction controls and safety procedures that would avoid and minimize the potential for accidental release of such substances into the environment. Standard construction practices would be observed such that any materials released are appropriately contained and remediated as required by local, State, and Federal law.

Construction activities could also result in accidental conditions involving existing on-site contamination. However, based on the *Phase I ESA* prepared for the project, no RECs, CRECs, or HRECs were identified on the project site or in the project area. Therefore, the impacts would be less than significant.

Operational Impacts

Refer to Impact 5.9(a) for a description of impacts related to project operations. Upon adherence to existing regulations related to hazards and hazardous materials safety, impacts pertaining to the potential for accidental conditions during project operations would be less than significant.

c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?

Less Than Significant Impact. The nearest school to the project site is Anaverde Hills School located at 2902 Greenbrier Street, located approximately one mile to the northwest of the project site and approximately 0.1mile south of Avenue S, which is the designated truck route that would be used during project construction. However, as noted in Responses 5.9(a) and 5.9(b), the project would not result in significant hazardous materials impacts during the construction process or long-term operations. Thus, the impacts would be less than significant.

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?

No Impact. Government Code Section 65962.5 requires the Department of Toxic Substances Control (DTSC) and SWRCB to compile and update a regulatory sites list (pursuant to the criteria of the Section). The California Department of Health Services must also compile and update, as appropriate, a list of all public drinking water wells that contain detectable levels of organic contaminants and are subject to water analysis pursuant to Health and Safety Code Section 116395. Government Code Section 65962.5 requires the local enforcement agency, as designated pursuant to Section 18051 of Title 14 of the California Code of Regulations, to compile, as appropriate, a list of all solid waste disposal facilities from which there is a known migration of hazardous waste.

Based on regulatory database searches conducted as part of the *Phase I ESA*, the project site is not listed pursuant to Government Code Section 65962.5. In addition, no RECs, CRECs, or HRECs were identified on the project site or in the project area. Thus, no impact would occur.

e) For a project located within an airport land use plan or, where such a plan has not been adopted, within 2 miles or a public airport or public use airport, result in a safety hazard for people residing or working in the project area? For a project within the vicinity of a private airstrip, result in a safety hazard for people residing or working in the project area?

No Impact. The nearest airport to the project site is the Palmdale Regional Airport located approximately 5 miles to the northeast. Based on the Los Angeles County Airport Land Use Plan, revised December 1, 2004, the project site is located outside of the Airport Influence Area. Additionally, the project site is not located within the vicinity of a private airstrip or related facilities. Therefore, project implementation would not expose people residing or working in the project area to excessive noise levels or safety hazards associated with aircraft. No impact would occur.

f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?

Less Than Significant Impact. The City's Emergency Operations Plan (EOP) was approved by the State Office of Emergency Services in February 2012. The plan guides emergency response with a multi-hazard perspective specific to the city. It is compliant with the National Incident Management System (NIMS) and the Standardized Emergency Management System (SEMS) regarding emergency management.

Construction staging would not interfere with any nearby roadways, and project-related construction vehicles and equipment shall only be parked onsite. During construction, the project would generate additional traffic associated with workers mobilizing daily at the site.

Equipment would be transported to the project site. Grading and construction would be in continuous phases; equipment and vehicles can be parked onsite and no off-site parking will be required. In addition, there are no components of the project with the potential to conflict with or interfere with the City's Emergency Operations Plan (EOP). Therefore, the project would not be expected to interfere with any adopted emergency response plan or emergency evacuation plan. A less than significant impact would occur.

g) 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?

Less Than Significant Impact With Mitigation Incorporated. According to the California Department of Forestry and Fire Protection (CalFire) *Fire and Resource Assessment Program* (FRAP) mapping website,[7] the project site is mapped as a State Responsibility Area (SRA) with portions of the site located within a Very High Fire Hazard Severity Zone (VHFHSZ). In addition, the project site and other undeveloped natural areas to the north and south represent a potential wildland fire threat to surrounding uses. As such, the project could 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.

As discussed in Section 5.20, *Wildfire*, the project would be required to implement Mitigation Measure WF-1, which requires that the Project Applicant prepare a site-specific Fire Protection Plan (FPP) for review and approval by the City of Palmdale Public Works Department (Engineering Division) in consultation with the Los Angeles County Fire Department (LACFD). This measure would ensure compliance with the City's General Plan Safety Element Policy SE-2.12, which requires the preparation of site-specific FPPs for all new development located within a VHFSZ. As such, the project would comply with development requirements intended to reduce wildland fire hazard risks, prescribed by the LACFD, which would provide fire protection services for the project site. The Planning Division, Land Development Unit, Forestry Division, and Health Hazardous Materials Division of the LACFD have reviewed the proposed project and provided comments as part of the noticing process for the project that occurred in August 2024 and has also provided a letter citing conditions of approval for the project in December 2018. These conditions include that access, water system and fuel modification requirements be incorporated into the project. Accordingly, the project would comply with all code and ordinance requirements for access, water mains, fire flows and fire hydrants, for fire protection purposes, which would be described in the project's FPP to be prepared in accordance with Mitigation Measure WF-1, which would reduce the potential to expose people or structures to a significant risk of loss, injury or death involving wildland fires. Therefore, this impact would be reduced to less than significant with the implementation of Mitigation Measure WF-1. Refer to Section 5.20, *Wildfire,* of this IS/MND for a complete discussion of wildfire impacts and project-specific mitigation.

[7] CalFire, Fire Hazard Severity Zone Viewer, https://egis.fire.ca.gov/FHSZ/, accessed December 4, 2023.

5.10 Hydrology / Water Quality

Would the proposed project:					
	Issues	**Potentially Significant Impact**	**Less Than Significant Impact with Mitigation Incorporated**	**Less Than Significant Impact**	**No Impact**
a)	Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality?			✓	
b)	Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?			✓	
c)	Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:				
	i) Result in substantial erosion or siltation on- or off-site?			✓	
	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?			✓	
	iv) Impede or redirect flood flows?				✓
d)	In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?				✓
e)	Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?				✓

The information and analysis herein rely on the following technical studies:

- *TTM 54328 15th West and Avenue S Hydrology and Hydraulic Report* (Hydrology Report), prepared by D & D Engineering, Inc., dated June 7, 2022, provided as Appendix F

Regional Hydrology

The project site is located within the southern portion of the Antelope Valley Watershed, which is a part of the Antelope Valley Groundwater Basin. The Antelope Valley Watershed is unique in that it does not drain into the Pacific Ocean. The watershed straddles the Los Angeles-Kern County Line and encompasses approximately 1,220 square miles within Los Angeles County, 2,006 square miles in Kern County, and 143 square miles in San Bernardino County. Numerous streams originating in the mountains and foothills flow across the valley floor and eventually pond in the dry lakes (Edwards Air Force Base) adjacent to the northern County line. The valley lacks defined natural and improved channels outside of the foothills and is subject to unpredictable sheet flow patterns.

Existing Site Drainage

The project site contains predominantly flat vacant lands with no areas of significant topographic relief. Elevations on the project site range from 2,939 feet above mean sea level (amsl) to 3,071 feet amsl. The entire watershed in which the project site is located is naturally divided into two smaller east and west watersheds, which drain from south to north towards the two existing culverts crossing under the California Aqueduct. The site currently receives flows from an upstream offsite tributary area of approximately 1,600 acres to the south of the project. This offsite runoff flows into the project site through three existing culverts along Avenue S.

Existing Floodplain

Based on Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map (FIRM) No. 06037C0670F, dated September 26, 2008, the project site is located in Zone X, an area located outside of the 100-year and 500-year flood plains.

Existing Water Quality

The project site is within the jurisdiction of the Lahontan RWQCB, and the Water Quality Control Plan for the Lahontan Region (Basin Plan) is the governing water quality plan for the region. As noted in the Basin Plan, although high quality water supplies are available near streams in desert areas of the Lahontan Region, many desert waters have naturally poor quality (e.g., high concentrations of salts, and minerals such as arsenic and selenium). Water quality problems in the Lahontan Region are largely related to nonpoint sources (including erosion from construction, timber harvesting, and livestock grazing), stormwater, acid drainage from inactive mines, and individual wastewater disposal systems. There are relatively few point source discharges; these include several wastewater treatment plants, fish hatcheries operated by CDFW, and some geothermal discharges.

Groundwater Supplies

The project site is located within the Antelope Valley Groundwater Basin. The Antelope Valley Groundwater Basin encompasses 1,580 square miles of Los Angeles County, Kern County, and, less prominently, San Bernardino County, and has a storage capacity of approximately 70,000,000 acre-feet. The Antelope Valley Groundwater Basin is composed of two primary aquifers: the upper (principal) aquifer and the lower (deep) aquifer. In addition, the U.S. Geological Survey (USGS) has identified a series of subbasins in the Antelope Valley Groundwater Basin. The project site is located within the Lancaster groundwater subbasin. The Lancaster subbasin is in the center of the Antelope Valley Groundwater Basin with its southernmost portions lying within the Palmdale Water District (PWD) service area.

a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality?

Less Than Significant Impact.

Construction Impacts

Temporary construction-related impacts associated with development of the project are anticipated to involve construction of new structures, excavation and grading activities to construct building pads, and paving of roadways. Other construction activities may include building walls and fencing, adding signage and lighting, and installing landscaping, onsite utilities, and infrastructure improvements such as water and dry (i.e., electrical) utilities.

Typical construction activities would require the use of gasoline- and diesel-powered heavy equipment, such as backhoes, water pumps, bulldozers, and air compressors. Chemicals such as gasoline, diesel fuel, lubricating oil, hydraulic oil, lubricating grease, automatic transmission fluid, paints, solvents, glues, and other substances would also likely be used during construction. An accidental release of any of these substances could degrade surface water runoff quality and contribute additional sources of pollution to the existing drainage system. Therefore, small quantities of pollutants have the potential to enter the storm drainage system during project construction and degrade water quality. In general, construction-related impacts to water quality could occur in the following periods of activity:

- During the earthwork and construction phase, when the potential for erosion, siltation, and sedimentation would be the greatest; and
- Following construction, before the establishment of ground cover, when the erosion potential may remain relatively high.

Pursuant to the requirements of the Lahontan RWQCB, the Project Applicant would be required to obtain a NPDES Municipal Storm Water Permit (MS4) for construction activities. The NPDES permit is required for all projects that include construction activities, such as clearing, soil stockpiling, grading, and/or excavation that disturb at least one acre of total land area. In addition, the project would be required to comply with the Lahontan RWQCB's Basin Plan. Compliance with the NPDES Permit and the Basin Plan involves the preparation and implementation of a SWPPP for construction-related activities, including grading. The SWPPP would specify the Best Management Practices (BMPs) that the project would be required to implement during construction activities to ensure that all potential pollutants of concern are prevented, minimized, and/or otherwise appropriately treated prior to being discharged from the project site. Mandatory compliance with the SWPPP would ensure that the project does not violate any water quality standards or waste discharge requirements during construction activities. Therefore, water quality impacts associated with construction activities would be less than significant.

Operational Impacts

As discussed in the *Hydrology Study* prepared for the project, the project site currently discharges 678 cubic feet per second (CFS) to the existing west outlet and 1,019 CFS to the existing east outlet. The outflow to the west outlet includes 187 CFS coming from the west culvert below Avenue S, 369 CFS coming from the center culvert below Avenue S, and 61.3 CFS coming from the existing Tract 53888 (located to the west of the project site). The outflow to the east outlet includes 1,010 CFS coming from the east culvert below Avenue S.

According to City of Palmdale standards, the allowable proposed runoff from the project site is 85 percent of the existing runoff. Applying this factor to both existing outlets gives a

maximum allowed discharge of 577 CFS to the west outlet and 866 CFS to the east outlet.

The project proposes to construct an onsite network of nine detention basins, which would reduce the onsite and incoming offsite peak runoff. The total proposed peak discharge to the existing west outlet would be 298 CFS, which is less than the maximum allowable discharge of 577 CFS. The total proposed peak discharge to the existing east outlet will be 258 CFS, which is less than the maximum allowable discharge of 866 CFS. Therefore, the proposed project site would discharge less than 85 percent of the existing runoff from the site, including the incoming offsite flows upstream of the project site.

The project has been designed to reduce development impacts on water quality, protect downstream hydraulic conditions, and reduce Project-related stormwater pollutants. Therefore, project compliance with regulatory requirements would ensure operational activities result in less than significant impacts to water quality.

b) 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 LACWD District No. 40 (the District) would provide domestic [drinking] water to the project. In October 2021, the District prepared its 2020 Urban Water Management Plan (UWMP) in accordance with the California Urban Water Management Planning Act of 1983 and subsequent revisions. The UWMP includes a description of the water supply sources and projected water use, and a comparison of water supply and water demands during normal, single-dry, and multiple -dry years. The District's water conservation program is also described.

Based on the 2020 UWMP, the District has adequate water supplies to meet projected demands in all types of water years. The District purchased banked groundwater for dry years when supplies from the State Water Project (SWP) and groundwater will not meet demands in the future. Water banking involves storing water when it is available for wet years or low-demand periods and recovering it during periods of drought or high demand. The District currently serves approximately 58,607 active connections, which include single-family residential, multi-family residential, commercial, industrial, institutional/government, and other accounts, and the District is fully metered. Development is anticipated in urban areas that are anticipated to be supplied by the District, including the development of the proposed project. The District's projected water demands are based on the expected increase in population in the target per capita water use for the District.

A *Water Supply Assessment* was prepared for the proposed project on February 9, 2023 (revised November 18, 2024), which evaluates the project's water needs against the available water supply. As identified in the *Water Supply Assessment*, the UWMP based the District's projected water demands on future projected population data and the Gallons Per Capita Day (GPCD) of 225. The UWMP projected water demand for the proposed project is approximately 535.6 acre-feet per year (AFY), as shown in **Table 17: Proposed Project Water Demand**, below. The project's calculated water demand is within the parameters of the water allotment for the development using the UWMP.

Therefore, the proposed project would not substantially decrease groundwater supplies or interfere significantly with groundwater recharge such that the project may impede sustainable groundwater management of the basin. A less than significant impact would occur.

Table 17: Proposed Project Water Demand

Land Use Description	Land Use Type	Lots/ Area	Water Demand Factor/Yearly Demand (AFY/AC)	Demand (AFY[1])
Single Family Residential	Low Density Residential	386	0.82 AFY/Lot	316.5
Multi-Family Residential	Medium Density Residential	322	81 GPCD[2]	105.3
Open Space/Parks	Public Areas	37.7	N/A	113.8
Avenue S	Streets	3.45	0	0
			Total	**535.6**

Source: Cannon Corporation, *Final SB610 Water Supply Assessment Falcon Glen Tentative Tract No. 54328*, Table 4-4, *Falcon Glen Water Demand – Using UWMP*, February 9, 2023 (revised November 18, 2024).
Notes: 1 = AFY = acre feet per year
2 = GPCD = gallons per capita per day

c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:

i) Result in substantial erosion or siltation on- or off-site?

Less Than Significant Impact.

Construction Impacts

Temporary construction-related activities associated with the project are not anticipated to have a significant impact on existing drainage patterns since construction would be required to obtain coverage under the NPDES General Permit for Stormwater Discharges Associated with Construction Activity. The permit requires non-stormwater discharges from construction sites to be eliminated or reduced to the maximum extent practicable, preparation of a SWPPP, and routine inspections of all stormwater pollution prevention measures and control practices used at the site, including inspections before and after storm events. Compliance with NPDES General Permit requirements would prevent substantial erosion or siltation both on- and off-site during construction. Therefore, construction would not substantially alter the existing drainage pattern of the site or area in a manner which would result in substantial increased erosion or siltation on- or off-site. Impacts would be less than significant.

Operational Impacts

Following construction, wind and water erosion on the project site would be minimized, as the disturbed areas would be landscaped or covered with impervious surfaces, and drainage would be controlled through a storm drain system. With implementation of the proposed project, onsite stormwater runoff flows going through the existing three culverts would be routed through the onsite storm drain system and discharged via the existing outlets on the north side of the project site. As discussed in the *Hydrology Study*, the project proposes to construct an onsite network of nine detention basins, which would reduce the onsite and incoming offsite peak runoff.

As such, project operation would ensure that no potential adverse effects on downstream water bodies would occur with regard to erosion or siltation. Therefore, operational activities would not result in substantial on- or off-site erosion and siltation. Impacts would be less than significant.

ii) Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?

Less Than Significant Impact.

Construction Impacts

Temporary construction-related activities associated with the project are not anticipated to have a significant impact on existing drainage patterns since construction would be required to obtain coverage under the NPDES General Permit for Stormwater Discharges Associated with Construction Activity. The permit requires non-stormwater discharges from construction sites to be eliminated or reduced to the maximum extent practicable, preparation of a SWPPP, and routine inspections of all stormwater pollution prevention measures and control practices used at the site, including inspections before and after storm events. Compliance with NPDES General Permit requirements would prevent substantial erosion or siltation both on- and off-site during construction. Therefore, construction would not substantially alter the existing drainage pattern of the site or area in a manner which would result in flooding on- or off-site. Impacts would be less than significant.

Operational Impacts

As discussed above, the project proposes to construct an onsite network of nine detention basins, which would reduce the onsite and incoming offsite peak runoff. As a result, the project would not substantially alter the site's existing drainage pattern. The alteration of a stream or river is not required or proposed as part of the project. Therefore, project implementation would not substantially alter the site's existing drainage pattern, including through the alteration of the course of a stream or river, nor would it substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site. Impacts would be less than significant.

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?

Less Than Significant Impact.

Construction Impacts

Refer to the discussion for Impacts 5.10-1 and 5.10-2. The project's potential construction-related impacts to stormwater drainage systems would be regulated by federal, state, and local requirements intended to reduce or avoid adverse impacts. Compliance with these requirements would ensure protection of water quality and downstream drainage facilities. All construction activities would be required to demonstrate conformance with the BMPs identified in each project's SWPPP. The SWPPP establishes a plan whereby the operator evaluates potential pollutant sources at the site and selects and implements BMPs designed specifically to prevent or control the discharge of the identified pollutants into storm water runoff. The SWPPP must include flow control measures that would lessen flow rates during storm events occurring during the construction phase of the project. Conformance with applicable regulations and implementation of BMPs would protect existing or planned stormwater drainage systems from polluted runoff. Impacts would be less than significant.

Operational Impacts

Potential operational impacts to stormwater drainage systems would be regulated by federal, state, and local requirements intended to reduce or avoid adverse impacts. In addition, as discussed above, the project proposes to construct an onsite network of nine detention basins, which would reduce the onsite and incoming offsite peak runoff. As a result, the

project would not substantially alter the site's existing drainage pattern.

Therefore, project operations as designed would not create or contribute runoff water that would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff. Impacts would be less than significant.

iv) Impede or redirect flood flows?

No Impact. As previously indicated, according to FEMA FIRM No. 06037C0670F, the project site is mapped within Zone X. Therefore, under existing conditions, the project site is not subject to flood hazards. As such, the project would not impede or redirect flood flows and no impact would occur.

d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?

No Impact.

Flood Hazard

According to the Flood Insurance Rate Map (FIRM) No. 06037C0670F, the project site is located outside of the 100-year flood hazard area.[8] As a result, no impact would occur.

Tsunami

A tsunami is a great sea wave, commonly referred to as a tidal wave, produced by a significant undersea disturbance such as tectonic displacement of a sea floor associated with large, shallow earthquakes. The project site is not located near the to the Pacific Ocean or any large body of water. No impact would occur.

Seiche

A seiche is an oscillation of a body of water in an enclosed or semi-enclosed basin, such as a reservoir, harbor, lake, or storage tank. The project site is not in the vicinity of a reservoir, harbor, lake, or storage tank capable of creating a seiche. No impact would occur.

e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?

No Impact.

The 2014 Sustainable Groundwater Management Act (SGMA) requires local public agencies and groundwater sustainability agencies in high- and medium-priority basins to develop and implement groundwater sustainability plans or prepare an alternative to a groundwater sustainability plan. The project site is located within Antelope Valley Groundwater Basin, which is ranked as a "very low" priority basin.[9] However, the Antelope Valley Groundwater Basin is exempt from the requirements of the SGMA, and no regional groundwater management plan currently exists for the Antelope Valley Groundwater Basin. As such, the project has no potential to conflict with or obstruct implementation of a sustainable groundwater management plan. No impact would occur.

[8] Federal Emergency Management Agency, Flood Insurance Rate Map No. 06037C0670F, https://msc.fema.gov/portal/search?AddressQuery=palmdale%20%2Cca#searchresultsanchor, accessed December 4, 2023.

[9] California Department of Water Resources SGMA Basin Prioritization Dashboard website, https://gis.water.ca.gov/app/bp-dashboard/final/ Accessed December 5, 2023.

5.11 Land Use / Planning

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

a) Physically divide an established community?

Less Than Significant Impact. Factors that could physically divide a community include, but are not limited to:

- Construction of major highways or roadways;
- Construction of storm channels;
- Closing bridges or roadways; and
- Construction of utility transmission lines.

The key factor determining if a project would create a physical barrier that significantly changes the connectivity between community is to understand the extent to which persons would be separated from other areas of the community. The proposed project does not propose to construct major highways, storm channels, transmission lines, nor does the project propose to close a bridge or roadway. There is no established community, as the site and surrounding areas are either vacant or developed with residential uses. The proposed project is the construction of residential development that would be consistent with adjacent residential land use to the west. A less than significant impact would occur.

b) Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?

Less Than Significant Impact. The City has pre-designated and pre-zoned 152.37 acres of the project site as Single Family Residential 2 (SFR 2). The easternmost 17.16 acres of the project site have been pre-designated and pre-zoned as Low Density Residential (LDR). Based on the City's General Plan Land Use Designations Map (Figure 5.5 of the General Plan Land Use and Community Design Element) (September 21, 2022) and the Zoning Map (June 29, 2023), the project proposes the development of 708 residential units, of which 386 of the 708 units are proposed to have land use and zoning designations of Single Family Residential 1 (SFR 1), Single Family Residential 2 (SFR 2), Single Family Residential 3 (SFR 3), and 322 of the 708 units are proposed to have land use and zoning designations of Residential Neighborhood 1 (RN 1) and Residential Neighborhood 2 (RN 2). Therefore, since

the proposed land use and zoning includes designations other than the existing designations, the project would require a General Plan Amendment and Zone Change as part of the project's entitlements. However, once approved, the project would be consistent and would not conflict with a land use plan, policy, or regulation. A less than significant impact would occur.

5.12 Mineral Resources

Would the proposed project:					
	Issues	**Potentially Significant Impact**	**Less Than Significant Impact with Mitigation Incorporated**	**Less Than Significant Impact**	**No Impact**
a)	Result in the loss of availability of a known mineral resource that would be a value to the region and the residents of the State?				✓
b)	Result in the loss of availability of a locally important mineral resource recovery site delineated in a local general plan, specific plan, or other land use plan?				✓

a) Result in the loss of the availability of a known mineral resource that would be of value to the region and the residents of the State?

No Impact. As indicated in Section 4.12, Mineral Resources, of the City's *General Plan EIR*, Palmdale lies within the Palmdale Production-Consumption region, which is a California Department of Conservation-designated Mineral Resource Zone (MRZ) encompassing 1,103 square miles, including Palmdale and Lancaster. Two MRZ-2 areas are classified within the Palmdale area. The mineral deposits within Palmdale are the Littlerock Fan and the Big Rock Creek Fan alluvial deposits. The Littlerock Fan is a 12 square mile area extending from the north flank of the San Gabriel Mountains for about 8 miles, which includes the Littlerock Wash floodplain and the fan area to the west. The Big Rock Creek Fan encompasses a 26 square mile area extending northward from the San Gabriel Mountains for 8 miles. As shown in General Plan EIR Figure 4.12-2, *Mineral Resource Extraction in Palmdale*, the project site is not located in an area of known mineral resource availability.

The project site does not contain any known mineral resources, nor are there any mining activities occurring at the site or in the general vicinity of the site. Implementation of the project would result in no impact to mineral resources.

b) Result in the loss of availability of a locally important mineral resource recovery site delineated in a local general plan, specific plan, or other land use plan?

No Impact. Refer to Impact 5.12(a) above. The project site does not contain any known mineral resources nor are there any mining activities occurring at the site or in the general vicinity of the site. Implementation of the project would result in no impact to mineral resources.

5.13 Noise

Would the proposed project result in:					
	Issues	**Potentially Significant Impact**	**Less Than Significant Impact with Mitigation Incorporated**	**Less Than Significant Impact**	**No Impact**
a)	Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?		✓		
b)	Generation of excessive ground-borne vibration or ground-borne noise levels?			✓	
c)	For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?				✓

The information and analysis herein rely on the following reports and technical data:

- *Noise Study for TTM 54328 in Palmdale, CA* (Noise Study), prepared by Wilson Ihrig Acoustics, Noise and Vibration, dated February 7, 2024, provided as Appendix G

Existing Noise Sources

Current sound levels on the project site are moderate, where the majority of environmental noise is due to vehicular activity on Avenue S. Avenue S is the only street into the project site and the adjoining properties. Avenue S is a relatively straight road with few stops and turns and a 55 miles per hour speed limit, giving it highway-like conditions. The City expects the traffic volume to increase for Avenue S between now and 2040, as a result of this and other projects. In addition, minor noise sources include distant traffic on SR-14 and local arterials, occasional aircraft overflights, activity in the adjacent development, and noise from the Waste Management facility north of the California Aqueduct.

Sensitive Receptors

The closest operational and construction noise and vibration would approach residential receivers is on the western side of the project site, where the typical setback from the project site to the closest residences along Queen Anne Place and Plantain Lane is 60 feet. There are additional sensitive receivers 150 feet south of the project, across Avenue S at the southeast corner of Avenue S And Tovey Avenue, and 450 feet to the east of the project, across the California aqueduct at the southwest corner of Lisa Avenue and Bianca Avenue.

Existing Ambient Noise Levels

Existing noise levels at the project site were measured between March 29 and 31, 2023 using Larson Davis (LD) Models 812 and 820 Sound Level Meters record levels and set to log the 1-hour A-weighted Leq. Two sound level meters were placed on streetlights at a height of 5 to 10 feet above the ground, while the third was on a tripod set 5 feet above the ground. All three continuously collected noise data for 48 hours.

Three measurement sites were chosen: one on the western edge of the project site, one on the eastern edge, and one on the north. The western and eastern measurements were attached to utility poles, about 5 feet from the edge of Avenue S. The northern location was at the northern property line. The primary source of noise was vehicular traffic on Avenue S. Additionally, the northern site had a secondary source of activity from the waste management facility located approximately 2,000 feet to the north. Secondary noise sources included noise due to aircraft overflights and slight pedestrian activity. The existing daytime noise levels ranged from 55 dBA to 74 dBA.

a) Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?

Less Than Significant Impact With Mitigation Incorporated.

Construction Impacts

There are no applicable construction noise and vibration thresholds set by Federal, State, or local guidelines. However, there are applicable thresholds found in other documents that can be used as a guideline. The Federal Transit Administration (FTA) provides guidance regarding the evaluation of noise and vibration impacts associated with transit projects in its *Transit Noise and Vibration Impact Assessment Manual*. The FTA assessment criteria account for the existing noise environment, the duration of construction, and the adjacent land use.

The FTA assessment criteria for Detailed Analysis is presented in **Table 18, FTA Detailed Analysis Construction Noise Criteria**. FTA guidance indicates that where existing conditions exceed these criteria, the ambient (baseline) level should be used to determine impact. If these criteria are exceeded, there may be adverse community reaction. These criteria are applicable at the receiver (building façade).

Table 18: FTA Detailed Analysis Construction Noise Criteria

Land Use	Leq (dBA)	
	Day	Night
Residential	80	70
Commercial	85	85
Industrial	90	90

Notes: FTA applies "Day" to noise occurring between 7 AM and 10 PM. "Night" refers to 10 PM to 7 AM. No differentiation is made for weekends or legal holidays

Source: Wilson Ihrig Acoustics, Noise and Vibration, *Noise Study for TTM 54328 in Palmdale, CA,* February 7, 2024, Table 3

Table 19, Construction Phasing and Equipment, presents a summary of the proposed construction equipment and phasing for the project.

Table 19: Construction Phasing and Equipment

Construction Phase	Equipment	Number of Equipment
Site Preparation	Rubber Tire Dozers	3
	Tractors/Loaders/Backhoes	4
Grading	Excavators	2
	Graders	1
	Rubber Tire Dozers	1
	Scrapers	2
	Tractors/Loaders/Backhoes	2
Paving	Pavers	2
	Paving Equipment	2
	Rollers	2
Building Construction	Cranes	1
	Forklifts	3
	Generator Sets	1
	Tractors/Loaders/Backhoes	3
	Welders	1
Architectural Coating	Air Compressors	1

Source: Wilson Ihrig Acoustics, Noise and Vibration, *Noise Study for TTM 54328 in Palmdale, CA*, February 7, 2024, Table 5

For modeling purposes, the dominant noise-generating pieces of equipment associated with each stage were assumed to operate in the same hour to determine the maximum noise hour. The Federal Highway Administration's *Roadway Construction Noise Model* (RCNM) establishes standard noise levels to be used for modeling construction equipment. For this analysis, default "actual" LMax (emission) levels from the program were used.

RCNM was used to model projected construction equipment at applicable distances. The grading phase was used as worst-case scenario, with all five pieces of equipment modeled with simultaneous use at the closest distance to receivers, a conservative assumption. In real-world conditions, it would be highly unlikely for five pieces of construction equipment to be active in the same small area. Additionally, for the western receivers, there is an existing privacy/soundwall on their eastern property line. This was included in the model with RCNM guidelines of 5 dBA of attenuation for an "enclosure and/or barrier [that] has some gaps in it." The results are presented in **Table 20, Summary of Modeled Construction Noise Levels and Impacts**.

Table 20: Summary of Modeled Construction Noise Levels and Impacts

Modeled Receivers	Distance to Construction (feet)	Modeled Leq (dBA)	Daytime Criteria	Significant Impact?
West (Along Queen Anne Place and Plantain Lane)	60	79	80	No
South (Southeast of W Avenue S and Tovey Avenue)	150	75	80	No

Source: Wilson Ihrig Acoustics, Noise and Vibration, *Noise Study for TTM 54328 in Palmdale, CA*, February 7, 2024, Table 6

As seen in **Table 20**, no construction noise impacts are predicted at 60 and 125 feet, the closest construction equipment would approach the single-family houses to the west and the south of the project site. All other receivers would experience lower construction-related noise levels than shown in the table. Additionally, this analysis includes daytime noise only, as nighttime construction is prohibited by PMC Section 8.28.030. Therefore, construction-related noise impacts would be less than significant for all receivers.

Operational Impacts

Stationary Source Noise

The only sources of operational noise associated with the project would be in the yards of the proposed homes. This would primarily include Heating, ventilation, and air conditioning (HVAC) units and outdoor recreational use. HVAC condenser systems, which would operate at night, could have a maximum source level of 75 dBA at 3 feet before reaching an impact level. Recreational noise, which would occur during the day, would have a maximum source level of 80 dBA at three feet before reaching an impact level. 75 dBA is louder than a typical HVAC system required for a single-family house, such as an LG system that produces 64 dBA at 3 feet. It would take 12 such units in a single area to exceed the impact threshold. Similarly, 80 dBA would be louder than normal conversation, making it unlikely that normal activities described in PMC Section 9.18.010 would reach this level.

To calculate operational noise impacts, an impact level of 5 dB plus the ambient level was chosen as a threshold. This is based on a readily perceptible increase in ambient noise levels. At this level, the project would only increase sound levels in the surrounding community by 1 dB or less. The lowest sound levels experienced for daytime and nighttime hours within the vicinity of the project site at different locations and hours can be deduced. Then, using distance attenuation calculations, maximum sound levels required to break this threshold can be calculated. A summary of these calculations are shown in **Table 21, Summary of Stationary Source Operational Noise Calculations.**

Table 21: Summary of Stationary Source Operational Noise Calculations

Receivers	Distance to Project (feet)	Day/Night	Lowest Measured Level (dBA)	Level Adj. at Receiver (dBA)	Criteria (3 feet from source – dBA)
West (Along Queen Anne Place and Plantain Lane)	60	Night	44	44	75[1]
		Day	49	49	80[1]
South (Southeast of W Avenue S and Tovey Avenue)	150	Night	59	52[2]	86
		Day	67	60[2]	94
East (Northeast of W Avenue S and the California Aqueduct)	450	Night	59	52[2]	99
		Day	67	60[2]	107

Notes: 1 = Assumes a 5 dB of attenuation from the already existing soundwall at the western property edge
2 = Assumes a 20-foot difference between the measurement location and the receiver setback compared to Avenue S
Source: Wilson Ihrig Acoustics, Noise and Vibration, *Noise Study for TTM 54328 in Palmdale, CA*, February 7, 2024, Table 10

As shown in **Table 21**, none of the stationary source operational noise calculations would exceed the criteria. Therefore, stationary source operational noise impacts resulting from the project would be less than significant.

Traffic Noise

To estimate future traffic noise conditions, as well as impacts on existing receivers, an analysis of traffic noise was conducted. The Federal Highway Administration "Traffic Noise Model" computer program (TNM version 2.5) was used to conduct that analysis. The following are the key assumptions made when developing the TNM model:

- Representative receptors were chosen to determine if there were impacts in any of the groupings of residences in the project. Since the primary traffic noise source was Avenue S, eight receptors located along the southern edge of Avenue S were selected.
- Two second-story receivers were included for Receptors 8 and 9. These did not change the recommendations.
- The height of modeled receptors at the first floor is 5 feet.
- The roadway was modeled as separate lanes in each direction with shoulders modeled as lanes with no traffic where necessary.
- A ground type of loose soil was used to simulate conditions which had more vegetation and softer soil than typical desert conditions due to heavy rains throughout the winter season.
- Due to the remote nature of the project location, no buses, heavy and medium trucks were observed while on site. As a conservative estimate, one percent of all total traffic was assumed to be heavy truck, medium truck, and motorcycle traffic each, and 97 percent of vehicles were assumed to be automobiles.
- The model was within 1.1 dB of the measured data8; therefore, the model may be considered valid for both current and predicted levels.
- Once the model was validated, the future traffic levels were inputted, and a new peak hour Leq was found. Since CNEL is a 24-hour measurement, and the traffic counts were given as peak hour, the following adjustment was used: The peak hour traffic was modeled, and the difference was found between the noise model results and the measured peak traffic hour noise level. The difference between the current modeled and current measured levels, 2.4 dBA, was then added to the modeled results and used to calculate the CNEL for future conditions.

Based on the parameters given above, the calculated existing and future CNEL are shown in **Table 22, Traffic Noise Modeling Results**. As designed, the future conditions are not expected to comply with the City of Palmdale's exterior and interior residential noise limits; therefore, the project would result in a potentially significant operational noise impact and mitigation is required.

The implementation of soundwalls, provided for in Mitigation Measure NOI-1, below, would reduce the project's operational traffic-related noise impacts; refer to the Noise Study for the proposed soundwall locations. The model was rerun with a 5-foot soundwall along the southern property line and the addition of the soundwall lowered sound levels below the 65 dBA CNEL exterior limits. The 45 CNEL interior noise limit would also be in compliance, assuming standard construction materials and practice. As a result, the project's operational traffic-related noise impacts would be reduced to less than significant with mitigation incorporated.

Table 22: Traffic Noise Modeling Results

Model Receptor	Measured Peak Hour Leq[1] (dBA)	Modeled Current Peak Hour Leq (dBA)	Modeled Future Peak Hour Leq (dBA)	Modeled Future CNEL (dBA)	Future CNEL with 5 - Foot Sound Wall	CNEL Criteria (dBA)	Meets Criteria?
East Calibration Point	71	72	75	77	74	--[2]	--
West Calibration Point	73	74	76	79	79	--[2]	--
Receptor 2	--	--	57	59	59	65	Yes
Receptor 4	--	--	59	61	58	65	Yes
Receptor 7	--	--	67	70	64	65	With Wall
Receptor 8	--	--	63	65	60	65	With Wall
Receptor 9	--	--	60	63	59	65	Yes
Receptor 10	--	--	62	64	60	65	Yes
Receptor 8 (2nd story)	--	--	68	70	63	65	With Wall
Receptor 9 (2nd story)	--	--	64	67	61	65	With Wall

Notes: 1 = Peak hour is based off peak activity in traffic studies, not from measured sound data
2 = No development is planned this close to Avenue S
Source: Wilson Ihrig Acoustics, Noise and Vibration, *Noise Study for TTM 54328 in Palmdale, CA,* February 7, 2024, Table 9

Antelope Valley Public Landfill Noise

The current CNEL at the northern edge of the project site is 55 dBA. The noise sources at this location include the Antelope Valley Public Landfill, distant traffic from Avenue S and SR-14. 55 dBA is 10 dB under the acceptable noise limit. For this level to increase 10 dBA, the noise generated by the landfill would have to increase tenfold. An increase of 10 dB is highly unlikely, and thus the northern edge of the property is in land use compliance relative to operational noise. A less than significant impact would occur with respect to the Antelope Valley Public Landfill.

Mitigation Measures

NOI-1 The Project Contractor shall install soundwalls with a height of 5 feet at the project site during project construction, at the locations provided in the approved Noise Study. The primary requirements for the soundwalls are as follows:

- The wall shall be constructed of an impervious material with no gaps between panels.
- There shall not be any openings at the bottom of the soundwall. Any openings that result from minor fluctuations of the ground surface shall be permanently filled with soil.

The soundwall material shall be impervious with a minimum surface density of 3.5 pounds per square foot (lb/ft^2). There is a wide range of suitable materials for sound walls ranging from masonry blocks to lap joint or tongue and grove wood panels. Wood panels that are at least 1 to 1.5 inches thick typically meet the surface mass requirement.

b) Generation of excessive ground-borne vibration or ground-borne noise levels?

Less Than Significant Impact. Project construction can generate varying degrees of groundborne vibration, depending on the construction procedure and the construction equipment used. Operation of construction equipment generates vibrations that spread through the ground and diminish in amplitude with distance from the source. The effect on buildings in the vicinity of a construction site often varies depending on soil type, ground strata, and construction characteristics of the receiver building(s).

Similar to the construction noise assessment, the construction vibration assessment is also based on the FTA guidance, which covers potential impacts on buildings and potential annoyance to building occupants. **Table 23, FTA Construction Vibration Damage Criteria**, shows FTA guidelines for vibration damage criteria from construction activity. The thresholds are conservative to address the possibility of cosmetic effects that would occur at amplitudes well below that which causes structural damage. The table provides peak particle velocity (PPV) limits for four building categories. These limits were used to identify areas that should be addressed during engineering design of the project alternatives.

Table 23: FTA Construction Vibration Damage Criteria

Building Type	PPV Threshold (in/sec)
I. Reinforced-concrete, steel or timber (no plaster)	0.5
II. Engineered concrete and masonry (no plaster)	0.3
III. Non-engineered timber and masonry buildings	0.2
IV. Buildings extremely susceptible to vibration damage	0.12
Source: Wilson Ihrig Acoustics, Noise and Vibration, *Noise Study for TTM 54328 in Palmdale, CA,* February 7, 2024, Table 4	

Construction vibration was modeled at the closest residences to the west of the project site at 60 feet, which is the closest distance that construction equipment would approach nearby receivers. The results of these calculations are shown in **Table 24, Construction Vibration Analysis Results**. As shown, no construction vibration impacts are predicted at 60 feet. Construction vibration impacts would be less than significant.

Table 24: Construction Vibration Analysis Results

Equipment	Modeled PPV at 60 feet (in/sec)	Threshold PPV (in/sec)	Significant Impact?
Vibratory Compactor (Roller)	0.07	0.2	No
Large Bulldozer	0.03	0.2	No
Loaded Trucks	0.02	0.2	No
Small Bulldozer	0.001	0.2	No
Source: Wilson Ihrig Acoustics, Noise and Vibration, *Noise Study for TTM 54328 in Palmdale, CA,* February 7, 2024, Table 8			

c) For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?

No Impact. The nearest airport to the project site is the Palmdale Regional Airport which is located approximately 5 miles to the northeast. Based on the Los Angeles County Airport Land Use Plan, revised December 1, 2004, the project site is located outside of the Airport Influence Area. Additionally, the project site is not located within the vicinity of a private airstrip or related facilities. Therefore, project development would not expose people residing or working in the project area to excessive noise levels, and no impact would occur.

5.14 Population / Housing

Would the proposed project:					
	Issues	**Potentially Significant Impact**	**Less Than Significant Impact with Mitigation Incorporated**	**Less Than Significant Impact**	**No Impact**
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)?			✓	
b)	Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?				✓

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)?

Less Than Significant Impact. A project could induce population growth in an area either directly through the development of new residences or businesses or indirectly by extending roads and other development infrastructure.

The project proposes to develop residences, recreational facilities, and drainage/water quality facilities. Therefore, the project would result in direct growth in the City's population by generating new dwelling units.

Based on the City's average household size of 3.40,[10] the project would introduce up to 2,441 new residents. Conservatively, if all 2,441 new residents relocate from outside of the City, potential population growth associated with the project would represent a 1.48 percent increase over the City's existing population of 167,398 persons.[11] Therefore, the project would induce population growth in a local context.

Potential population growth impacts are also assessed based on a project's consistency with adopted plans that have addressed growth management from a local and regional standpoint. The Southern California Association of Governments (SCAG) growth forecasts estimate the City's population to reach 207,000 persons by 2045, representing a total increase of 48,400 persons between 2016 and 2045. The project's residential population (2,441 persons) represents 5.1 percent of the City's anticipated growth by 2045, and only 1.2 percent of the City's total

[10] California Department of Finance, Report E-5 Population and Housing Estimates for Cities, Counties, and the State, 2021-2023 with 2020 Benchmark https://dof.ca.gov/forecasting/demographics/estimates/e-5-population-and-housing-estimates-for-cities-counties-and-the-state-2021-2023/, accessed December 4, 2023.
[11] Ibid.

projected 2045 population.[12] SCAG's regional growth projections are based upon long-range development assumptions (i.e., General Plans) of the relevant jurisdiction.

Although the project would result in direct population growth, the proposed project would not induce substantial unplanned population growth exceeding local conditions (1.48 percent increase) and/or regional population projection (1.2 percent for the total projected 2045 population of the City). As a result, the project would result in a less than significant impact relative to population growth.

b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?

No Impact. The project site is currently vacant, and no housing exists on-site. Therefore, project implementation would not displace any existing housing or people. No impact would occur.

[12] Southern California Association of Governments, Demographics and Growth Forecast Technical Report, September 3, 2020.

5.15 Public Services

Would the proposed project:					
	Issues	Potentially Significant Impact	Less Than Significant Impact with Mitigation Incorporated	Less Than Significant Impact	No Impact
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 public series:				
	i) Fire protection?			✓	
	ii) Police protection?			✓	
	iii) Schools?			✓	
	iv) Parks?			✓	
	v) Other public facilities?			✓	

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 public series:

i) Fire protection?

Less Than Significant Impact. The LACFD provides fire, rescue, and emergency services to the City. The closest fire station to the project is Station #37, located approximately 2.3 miles northeast of the project site at 38318 9th St E.

Although fire protection services are available at the project site under existing conditions, the project site is vacant and undeveloped. Therefore, implementation of the project and the introduction of new residences to the site would place an additional demand on existing LACFD resources. However, the project is consistent with the growth projections of the General Plan and is not anticipated to result in substantial unplanned population growth in the City; refer to Section 5.14, *Population/Housing*.

In addition, the Project Applicant would be required to pay fees to the City in accordance with PMC Chapter 3.42, *Fire Facilities Development Impact Fee Requirements,* which would mitigate any impacts to fire protection services that result from the project site's development. Payment of these fees would help fund the acquisition, design, and construction of new fire facilities in accordance with General Plan Public Facilities, Services and Infrastructure Element Policy PFSI-

2.2: Fire Protection (Coordinate with and assist the LACFD in planning for future fire station sites in Palmdale and facilitate location and construction of fire stations in conjunction with other City facilities [such as parks or municipal buildings] where feasible) and would minimize the project's operational impacts to fire protection services to the greatest extent practicable. Additionally, the project would undergo review by the LACFD, which may result in changes to design or site-specific conditions of approval. Impacts would be less than significant.

ii) Police protection?

Less Than Significant Impact. The Los Angeles County Sheriff's Department (LASD) provides sheriff protection services to the City. The unincorporated areas surrounding the City receive law enforcement services from the Sheriff's Department and traffic enforcement services from the California Highway Patrol (CHP). Currently there are two sheriff's stations serving the Antelope Valley, one in Lancaster and the other in Palmdale, with a total patrol area of 1,370 square miles. The project site is within the service area of the Palmdale Sheriff's Station. The Palmdale Sheriff's Station is located approximately 2.5 miles northeast of the project site.

Similar to fire protection services, implementation of the project and the introduction of new residences to the site would place an additional demand on existing LASD resources. However, the project is consistent with the growth projections of the General Plan and is not anticipated to result in substantial unplanned population growth in the City; refer to Section 5.14, *Population/Housing*.

The Project Applicant would be required to pay fees to the City in accordance with PMC Chapter 3.45, *Public Facility Development Impact Fee Requirements,* which would mitigate any impacts to police protection services that result from the development of the project site. Payment of these fees would help fund the acquisition, design, and construction of new police facilities and would minimize the project's operational impacts to police protection services to the greatest extent practicable. Additionally, the project would undergo review by the LASD, which may result in changes to design or site-specific conditions of approval. Impacts would be less than significant.

iii) Schools?

Less Than Significant Impact. The Palmdale School District serves the central developed core of the City. The project site is located within the boundaries of the Palmdale School District. The closest Palmdale District schools to the project site include Palm Tree Elementary School, located at 326 E Ave Road. Project includes the development of 708 residential lots, which could generate additional students within the project area.

Although the project would result in an increased demand for Palmdale School District school services, all new residential construction projects are subject to the collection of Palmdale School District developer fees. Facility fees and charges will be imposed on new developments pursuant to City ordinances. Facility fees and charges may be established for developments to pay for the infrastructure and services that will be needed to maintain the project. Additionally, the project would be required to comply with Assembly Bill (AB) 2926 and Senate Bill (SB) 50 requirements, which allow school districts to collect impact fees from developers of new residential projects. According to Section 65996 of the California Government Code, payment of statutory fees is considered full mitigation for new development projects. Thus, upon payment of required fees by

the project applicant consistent with existing Palmdale School District and State requirements, impacts would be less than significant.

iv) Parks?

Less Than Significant Impact. The City currently has ten developed parks totaling approximately 193 acres. The nearest park to the project site is Anaverde Park, located at 2820 Greenbrier Street, approximately 0.8-mile to the northwest. As noted in Section 2.0, Project Description, the project would construct a community recreation center, multiple parks totaling 7.2 acres, and trails to be maintained through homeowner's association fees and is not anticipated to result in substantial unplanned population growth in the City; refer to Section 5.14, *Population/Housing*. Impacts would be less than significant.

v) Other public facilities?

Less Than Significant Impact. Other public facilities that could potentially be impacted by the proposed project include library services. The Palmdale City Library and the Youth Library were Palmdale's primary libraries unit the City's population grew. The additional libraries built throughout the City include Quartz Hill, northwest of the City and another in Littlerock, southeast of the City, as well as one in Lancaster. The Palmdale City Library is approximately 4.7 miles from the project site and is located at 700 E Palmdale Boulevard.

Project development would increase the residential population and thus the need for new or physically altered libraries might occur. However, like the other public services described herein, the project would be required to comply with PMC Chapter 3.45, *Public Facility Development Impact Fee Requirements*, which requires development applicants to pay development impact fees to address usage demands from new development on the City's existing facilities including libraries. Therefore, the impacts would be less than significant.

5.16 Recreation

Would the proposed project:					
	Issues	**Potentially Significant Impact**	**Less Than Significant Impact with Mitigation Incorporated**	**Less Than Significant Impact**	**No Impact**
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?			✓	
b)	Include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?			✓	

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?

Less Than Significant Impact. Refer to Impact 5.15(a). The project would construct a community recreation center, multiple parks totaling 7.2 acres, and trails to be maintained through homeowner's association fees and is not anticipated to result in substantial unplanned population growth in the City, and therefore, would not result in substantial physical deterioration of existing facilities or require construction or expansion of such facilities. A less than significant impact relative to recreational facilities would occur.

b) Include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?

Less Than Significant Impact. Refer to Impact 5.15(a). A less than significant impact relative to recreational facilities would occur.

5.17 Transportation

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

The information and analysis herein rely on the following investigation and collectively document the traffic and circulation conditions of the project site:

- *Falcon Glen ZC 10-007, GPA 18-006, TREDLite Vehicle Miles Traveled (VMT) Modeling Results* (VMT Analysis), prepared by Kimley-Horn, dated October 2024, provided as Appendix H1
- *Traffic Operations Analysis*, prepared by Fehr & Peers, dated May 2026, provided as Appendix H2

Existing Roadway System

The following is a brief description of the roadways considered in the analysis of project impacts relative to transportation and traffic.

Antelope Valley Freeway (State Route 14) is a north-south state highway which connects Los Angeles to the northern Mojave Desert. Near the project study area, the freeway has three northbound lanes and four southbound lanes with a posted speed limit of 65 miles per hour (mph).

Avenue S is an east-west roadway that runs south of the project site. Adjacent to the project site, the roadway provides four lanes of travel. The posted speed limit is 55 mph, no on-street parking is permitted, sidewalks are provided on both sides of the roadway west of the project site, and a Class IV bike facility is present on the south side of Avenue S east of the SR-14.

Tierra Subida Avenue is a two-lane, north-south roadway beginning at Elizabeth Lake Road/West Palmdale Boulevard and ending at Avenue U. The posted speed limit is 55 miles per hour (mph), no on-street parking is permitted, and no sidewalk or bike facilities are present in project study area.

Traffic Operations Study Area

The following intersections were included in the *Traffic Operations Analysis* that was conducted for the project to analyze the effect of additional vehicle travel generated by the proposed project on traffic operations at nearby intersections:

1. Tierra Subida Avenue & Avenue S
2. State Route 14 (SR-14) Southbound ramps & Avenue S
3. SR-14 Northbound ramps & Avenue S
4. R Street & Avenue S (Project driveway, future intersection)
5. W Street & Avenue S (Project driveway, future intersection)
6. Y Street & Avenue S (Project driveway, future intersection)

Existing Pedestrian Facilities

Pedestrian facilities include sidewalks, crosswalks, pedestrian signals, and multi-use trails. Near the project site, roadways with pedestrian facilities include the following:

- Both sides of Avenue S west of the project site
- South side of Avenue S east of SR-14 southbound ramps

Existing Bicycle Facilities

The City's General Plan Circulation Element presents the current and planned bicycle facilities throughout the City. The following types of bikeways are planned within the City:

- **Class I:** Referred to as a bike path. Provides a completely separated right-of-way for the exclusive use of bicycles and pedestrians with crossflow by motorists minimized.
- **Class II:** Referred to as a bike lane. Provides a striped lane for one-way bicycle travel on a street or highway.
- **Class III:** Referred to as a bike route. Provides for shared use with pedestrian or motor vehicle traffic.
- **Class IV:** Referred to as a separated bikeway. Provides a vertical physical barrier between the bikeway and the through vehicular traffic, such as grade separation, flexible posts, inflexible-physical barriers, or on-street parking.

Within the project vicinity, there are existing Class I bike lanes on the south side of Avenue S east of SR-14 southbound ramps. The Bicycle Network Map published as part of the General Plan Circulation Element identifies planned bike lanes for the Avenue S corridor and Tierra Subida Avenue between Elizabeth Lake Road/West Palmdale Boulevard and West Barrel Springs Road.

Existing Transit Service

The City is currently served by the Antelope Valley Transit Authority (AVTA), a public transit agency serving various jurisdictions within Los Angeles County. Based on a review of the existing transit routes within the vicinity of the project site, there are no nearby transit services within the project vicinity. The nearest AVTA bus stop is located over two miles to the east of the project site, along Avenue S (Route 3).

Analysis Methodology

CEQA Guidelines Section 15064.3 was released on December 28, 2018, to address the determination of significance for transportation impacts. The new guideline requires that the analysis is based on vehicle miles traveled (VMT) instead of congestion (such as level of service, or LOS). The change in the focus of transportation analysis is the result of legislation (SB 743) and is intended to shift the emphasis from

congestion to, among other things, reducing GHG emissions, promoting a diversity of land uses, and developing multimodal transportation networks. Pursuant to CEQA Guidelines Section 15064.3(c), this change in analysis is mandated to be used beginning July 1, 2020.

On June 5, 2024, the City adopted Resolution No. CC 2024-031, a Resolution of the City Council to establish a Vehicle Miles Traveled (VMT) Program which includes VMT thresholds; VMT analysis requirements and program; and establishes two new City fees: a VMT Analysis Fee and a VMT Impact Fee. Accordingly, the City developed its *Analyzing Vehicle Miles Traveled (VMT) for CEQA Compliance, SB 743 VMT Implementation Guidelines for the City of Palmdale* (VMT Guidelines), May 13, 2024, for use as the City's guidelines and thresholds for evaluating VMT and transportation-related environmental effects.

According to the VMT Guidelines, given the similarities between the City of Palmdale and unincorporated San Bernardino County, the City of Palmdale has determined that its approach to setting VMT thresholds of significance is an appropriate basis for the City of Palmdale. As such, a project is considered to have a significant impact if the project VMT per person/employee is greater than 4 percent below the existing North Los Angeles County VMT averages for persons/employees. Specifically, for residential projects, the VMT Guidelines identify a VMT significance threshold of 4 percent below existing North Los Angeles County average VMT per capita; the residential VMT specifically applies to all home-based trips residential trips as represented in the City's General Plan Travel Demand Model. As discussed in the San Bernardino County Transportation Impact Guidelines dated July 9, 2019, the basis for this determination is the anticipated maximum achievable Transportation Demand Management (TDM) reduction within its growth areas. Refer to Impact 5.17(b), below, for a discussion of project impacts relative to VMT.

Consistent with the requirements of SB 743, LOS is no longer considered as the basis for determining environmental impacts under CEQA.

a) Conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities?

Less Than Significant Impact.

Roadway Facilities

The existing roadway system near the project site includes Antelope Valley Freeway (State Route 14), Avenue S, and Tierra Subida Avenue, along with other nearby streets at R Street and W Street. Based on the *Traffic Operations Analysis,* the project would result in traffic impacts to SR-14 due to the impacts on regional traffic and circulation of the proposed development. The project is expected to generate approximately 6,771 daily vehicle trips, including approximately 503 vehicle trips (131 inbound/372 outbound) during the AM peak hour, and approximately 675 vehicle trips (425 inbound/250 outbound) during the PM peak hour. Therefore, the project would include contributions for off-site improvements on nearby roadway facilities intended to reduce these impacts to SR-14. Specifically, the following off-site improvements have been identified in the *Traffic Operations Analysis.*

- Intersection 1: Tierra Subida Avenue & Avenue S: Widen the westbound approach to accommodate a third westbound through (WBT) lane.
- Intersection 2: State Route 14 (SR-14) Southbound ramps & Avenue S: Widen the westbound approach to accommodate a second westbound through (WBT) lane.
- Intersection 3: SR-14 Northbound ramps & Avenue S: Widen the northbound approach to accommodate a second northbound left turn (NBL) lane.

The project also proposes to signalize the driveway intersections of R Street and W Street on Avenue S. The unsignalized driveway intersection of Y Street and Avenue S is designed as side street stop-controlled allowing Right-in/Right-out per the LOS Study, attached herein

as Appendix H1, dated June 2026. In addition, the project would construct new frontage improvements that would establish the first continuous connections in this developing area and assist in implementing the City's General Plan infrastructure, including sidewalks and bicycle facilities. As such, these improvements would improve roadway operations and would reduce any conflict with the General Plan Circulation and Mobility Element. The project would also be consistent with the following General Plan goals and policies:

- Goal CM-4. Build and maintain a transportation system that enhances quality of life and public health.
- 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.
- CM-6.1. Vehicle miles traveled. Prioritize transportation investments and strategies that create opportunities for residents to reduce Vehicle Miles Traveled.
- Goal CM-8. Maintain the purpose and need of the essential functions of the City's transportation system.
- CM-8.4. Private streets. Adopt standards for use of private streets and require assurance of long-term maintenance for all private streets constructed within the city
- CM-8.5. Residential development. Require residential developments to contribute toward City programs to reduce vehicle trips.

With implementation of conditions of approval regarding payment of fees and identified roadway and intersection improvements, the project would improve local traffic operations and is anticipated to be consistent with the General Plan. Thus, the project would comply with the applicable programs and plan applicable to roadway facilities. As discussed above, impacts under CEQA relative to roadway facilities are determined based upon VMT. As discussed below in impact (b), VMT impacts were found to be less than significant. As such, the project would not conflict with a program, plan, ordinance or policy addressing roadway facilities and a less than significant impact would occur. Additionally, the project would be conditioned to meet the final design standards for the SR-14 ramp intersection, including a construction-level review, final geometric design standards, and participation in the City's fair share program. These requirements are considered regulatory requirements and do not constitute unique mitigation measures as they implement the recommendations provided in Appendix H1, *Palmdale Falcon Glen Project – Traffic Operations Study, dated June 2026*.

Transit, Bicycle, and Pedestrian Facilities

The project would be required to adhere to applicable City standards that support or facilitate transit, bicycle and pedestrian facilities. The project would be required to coordinate with AVTA to provide additional bus stop(s) and/or provide additional bus stop amenities, along the project frontage, as required by the City's Conditions of Approval that would be applied to the project. The project would construct pedestrian facilities (sidewalks) along its internal roadway system, and would also include the construction of a bicycle lane along the project's frontage on Avenue S. In addition, as discussed in Section 2.4.3, Open Space and Recreational Amenities, above, the project would construct a series of trails that would provide multiple points of access to the adjacent Aqueduct Trail, as shown in **Table 5, Proposed Trail Access Points**. As such, the project would not conflict with a program, plan, ordinance

or policy addressing transit, bicycle and/or pedestrian facilities and a less than significant impact would occur.

b) Would the project conflict or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b)?

Less Than Significant Impact.

As discussed above and in the City's VMT Guidelines, a residential project is considered to have a significant impact if the project VMT would be 4 percent below existing North Los Angeles County average VMT per capita. Specifically for the residential land use, the VMT Guidelines identify a VMT threshold of 21.4 VMT/capita.

A VMT Analysis was prepared for the proposed project using the TREDLite VMT modeling tool, under the ITE Trip Generation Land Use 210 (single-family detached housing). The modeling results show that the project's per VMT/capita would be 18.56, which is below the City's VMT threshold of 21.4. Therefore, the project would not exceed the City's VMT threshold for residential projects and would not result in a conflict with CEQA Guidelines Section 15064.3, subdivision (b). A less than significant impact would occur in this regard.

c) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?

Less Than Significant Impact. The project does not propose changes to the City's circulation system, such as the redesign or closure of streets, and would not introduce incompatible uses to area roadways (e.g., farm equipment or trucking facilities). No sharp curves or dangerous intersections that could cause substantial hazards are proposed on-site. The project's conceptual design have been reviewed by the City for compliance with the PMC, and the City has determined that the project's conceptual design is in substantial compliance with the PMC requirements and would not substantially increase hazards due to a geometric design feature. Therefore, impacts would be less than significant.

d) Result in inadequate emergency access?

Less Than Significant Impact. The project is not anticipated to result in any short or long-term impacts related to emergency response or evacuation. During construction of the proposed project, project construction contractors would be required to maintain adequate emergency access routes on site. Additionally, the project's proposed development plans have been reviewed by the LACFD and the City, which have determined that the project's design would provide for adequate access for emergency vehicles under long-term operations. The entry driveways and internal roadways would be designed to meet fire access and emergency access requirements detailed in the California Fire Code. Impacts would be less than significant.

5.18 Tribal Cultural Resources

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

California Assembly Bill 52 (AB 52) was enacted and expanded CEQA by establishing a formal consultation process for California tribes within the CEQA process. The bill specifies that any project may affect or cause a substantial adverse change in the significance of a tribal cultural resource would require a lead agency to "begin consultation with a California Native American tribe that is traditional and culturally affiliated with the geographic area of the proposed project." Section 21074 of AB 52 also defines a new category of resources under CEQA called "tribal cultural resources." Tribal cultural resources are defined as "sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American tribe" and is either listed on or eligible for the California Register of Historical Resources or a local historic register.

a) Cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code Section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:

i) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code Section 5020.1(k)?

No Impact. As detailed in Impact 5.5(a), no historic resources listed or eligible for listing in a State or local register of historic resources are located on-site. Therefore, no impacts related to historic tribal cultural resources defined in Public Resources Code Section 5020.1(k) would occur.

ii) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1? In applying the criteria set forth in subdivision (c) of Public Resource 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. In compliance with AB 52, the City distributed letters notifying each tribe that requested to be on the City's list for the purposes of AB 52 of the opportunity to consult with the City regarding the proposed project. The City communications to meet its AB52 obligations to the designated tribes included follow up emails to written correspondences and non-responses to distributed notices, direct telephone calls, and scheduled teleconference meetings with individual designated tribes via Microsoft Teams.

The following six tribes were included in the letter distribution, based on the list received by the NAHC in response to the Sacred Lands File search conducted on October 9, 2024:

- Fernandeno Tataviam Band of Mission Indians (FTBMI)
- Morongo Band of Mission Indians (MBMI)
- Quechan Tribe of the Fort Yuma Reservation
- San Fernando Band of Mission Indians (SFBMI)
- Yuhaaviatam of San Manuel Nation (YSMN) (formerly the San Manuel Band of Mission Indians)
- Serrano Nation of Mission Indians

The letters were distributed by City staff on (September 30, 2024. The tribes had 30 days to respond to the City's request for consultation. The following responses were received:

- A response was received via email on October 3, 2024, from the FTBMI Tribe to request the completion of a project intake form in order to determine the appropriate level of consultation. Upon receipt of the project intake form, another email was received from the FTBMI Tribe on October 23, 2024, to notify the City that the project is categorized as "high sensitivity" for tribal cultural resources based on the project site's location within a well-documented Tribal Corridor within the vicinity of SR-14; a well-traveled route connecting two former villages: Giringa and Jotatnga; and a known burial site within 1.5 miles. The Tribe requested formal consultation, which was conducted with the City on November 1, 2024. The Tribe provided mitigation measures for monitoring during ground disturbing activities (Mitigation Measure TCR-2); for unanticipated tribal cultural resource discovery during project construction (Mitigation Measure TCR-4); and for human remains (Mitigation Measure CR-3 [refer to Section 5.5, *Cultural Resources*]).

- A response was received via email on August 16, 2024, from the MBMI Tribe, stating that the project site is located within the ancestral territory and traditional use area of the Cahuilla and Serrano people of the MBMI. Therefore, the MBMI Tribe has requested Tribal participation (monitors) be present during all ground disturbing activities (Mitigation Measure TCR-2).
- A response was received via email from the Fort Yuma Quechan Indian Tribe, which stated that the current Project area was out of their Traditional Use Area, and as such, they deferred to tribes in geographic proximity to the Project area.
- A response was received via email on October 1, 2024, from the SFBMI Tribe, stating that the project site is located within the Vanyume/ Tataviam ancestral lands of the SFBMI; as such, this location and the surrounding vicinity are highly likely to contain tribal cultural resources. Therefore, the SFBMI Tribe has requested formal consultation and monitoring during all ground disturbing activities (Mitigation Measure TCR-2).
- A response was received via email on October 14, 2024, from the YSMN Tribe, stating that the proposed project area is located within Serrano ancestral territory and, therefore, is of interest to the Tribe, and the location of the project is near known tribal cultural resources and has the potential to encounter subsurface tribal cultural resources. Therefore, the YSMN Tribe has requested mitigation measures to include the preparation of a monitoring and treatment plan (Mitigation Measure TCR-1); Tribal monitoring during ground disturbing activities (Mitigation Measure TCR-2); preparation of a Worker's Environmental Awareness Program (WEAP) (Mitigation Measure TCR-3); and a protocol for the treatment of unanticipated discovery of cultural resources (Mitigation Measure TCR-4) and human remains (Mitigation Measure CR-3 [refer to Section 5.5, *Cultural Resources*]).
- No response was received from the Serrano Nation of Mission Indians.

The project's proposed ground disturbance activities could uncover previously undiscovered tribal cultural resources. Therefore, implementation of Mitigation Measures TCR-1 through TCR-4 would be required, as well as Mitigation Measure CR-3, described in Section 5.5, *Cultural Resources,* of this IS/MND. Mitigation Measures TCR-1 through TCR-4 and CR-3 would ensure that in the event unknown cultural resources, including archaeological, tribal cultural resources, and human remains and associated funerary objects are discovered during ground-disturbing activities, appropriate measures are taken. These mitigation measures are intended to be mandated through Conditions of Approval imposed by the City as part of the entitlement approval process. Following implementation of Mitigation Measures TCR-1 through TCR-4 and CR-3, impacts to tribal cultural resources would be reduced to less than significant.

Mitigation Measures

TCR-1 **Monitoring and Treatment Plan.** A Monitoring and Treatment Plan that is reflective of the project mitigation ("Cultural Resources" and "Tribal Cultural Resources") shall be completed by the archaeologist and submitted to the City for dissemination to the Yuhaaviatam of San Manuel Nation Cultural Resources Management Department (YSMN, also known as San Manuel Band of Mission Indians) and to all participants of the City's tribal consultation and outreach efforts. Once all parties review and approve the plan, it shall be adopted by the City; the plan must be adopted prior to permitting for the project.

Any and all findings will be subject to the protocol detailed within the Monitoring and Treatment Plan.

TCR-2 **Archaeological and Native American Monitoring.** Pursuant to tribal monitoring requests from the Fernandeno Tataviam Band of Mission Indians (FTBMI), the Morongo Band of Mission Indians (MBMI), the San Fernando Band of Mission Indians (SFBMI), and the Yuhaaviatam of San Manuel Nation (YSMN) (formerly the San Manuel Band of Mission Indians), and due to the heightened cultural sensitivity of the proposed project area, an archaeological monitor with at least 3 years of regional experience in archaeology and a Native American monitor shall be present for all ground-disturbing activities that occur within the proposed project area (which includes, but is not limited to, tree/shrub removal and planting, clearing/grubbing, grading, excavation, trenching, compaction, fence/gate removal and installation, drainage and irrigation removal and installation, hardscape installation [benches, signage, boulders, walls, seat walls, fountains, etc.], and archaeological work). A sufficient number of monitors shall be present each workday to ensure that simultaneously occurring ground disturbing activities receive thorough levels of monitoring staffing coverage (i.e. using appropriate best practices standards such as at least 1 monitor per ¼ mile radius of ground disturbing activity). The Native American monitoring work shall be divided equally amongst the Fernandeno Tataviam Band of Mission Indians (FTBMI), the Morongo Band of Mission Indians (MBMI), the San Fernando Band of Mission Indians (SFBMI), the Yuhaaviatam of San Manuel Nation (YSMN) (formerly the San Manuel Band of Mission Indians), or other tribal group with demonstrable ties to the area.

TCR-3 **Worker Environmental Awareness Plan (WEAP).** Prior to project initiation, a qualified archaeologist should be retained to conduct a Worker's Environmental Awareness Program (WEAP) training on archaeological sensitivity for all construction personnel prior to the commencement of any ground-disturbing activities. The training should be conducted by an archaeologist who meets or exceeds the Secretary of Interior's Professional Qualification Standards for archaeology (NPS 1983). Tribal representatives from the Consulting Tribes, including the FTBMI, MBMI, SFMI, and YSMN Cultural Resources Management Departments, shall be allowed to attend and/or participate in the WEAP training, should they elect to and shall be given ten days' notice prior to the training. Archaeological sensitivity training should include a description of the types of cultural material that may be encountered, cultural sensitivity issues, regulatory issues, and the proper protocol for treatment of the materials in the event of a find.

TCR-4 **Treatment of Tribal Cultural Resources During Project Implementation.** If a pre-contact cultural resource is discovered during project implementation, ground-disturbing activities shall be suspended 60 feet around the resource(s), and an Environmentally Sensitive Area (ESA) physical demarcation/barrier constructed.

The Project Archaeologist shall develop a research design that shall include a plan to evaluate the resource for significance under CEQA criteria.

Representatives from the Consulting Tribes including FTBMI, MBMI, SFMI, YSMN, the Project Archaeologist, and the City shall confer regarding the research design, as well as any testing efforts needed to delineate the resource boundary. Following the completion of evaluation efforts, all parties shall confer regarding the resource's archaeological significance, its potential as a Tribal Cultural Resource (TCR), and avoidance (or other appropriate treatment) of the discovered resource. Removal of any cultural resource(s) shall be conducted with the presence of a Tribal monitor representing the Tribe, unless otherwise decided by the Consulting Tribes. All plans for analysis shall be reviewed and approved by the applicant and the Consulting Tribes prior to implementation, and all removed material shall be temporarily curated on-site.

It is the preference of the Consulting Tribes that removed cultural material be reburied as close to the original find location as possible. However, should reburial within/near the original find location during project implementation not be feasible, then a reburial location for future reburial shall be decided upon by the Consulting Tribes, the landowner, and the City, and all finds shall be reburied within this location. Additionally, in this case, reburial shall not occur until all ground-disturbing activities associated with the project have been completed, all monitoring has ceased, all cataloguing and basic recordation of cultural resources have been completed, and a final monitoring report has been issued to the City of Palmdale, California Historical Resources Information System (CHRIS), and the Consulting Tribes. All reburials are subject to a reburial agreement that shall be developed between the landowner and the Consulting Tribes outlining the determined reburial process/location, and shall include measures and provisions to protect the reburial area from any future impacts.

Should it occur that avoidance, preservation in place, and on-site reburial are not an option for treatment, the landowner shall relinquish all ownership and rights to this material and confer with the Consulting Tribes to identify an American Association of Museums (AAM)-accredited facility within the County that can accession the materials into their permanent collections and provide for the proper care of these objects in accordance with the 1993 CA Curation Guidelines. A curation agreement with an appropriate qualified repository shall be developed between the landowner and museum that legally and physically transfers the collections and associated records to the facility. This agreement shall stipulate the payment of fees necessary for permanent curation of the collections and associated records and the obligation of the Project Applicant to pay for those fees.

All draft records/reports containing the significance and treatment findings and data recovery results shall be prepared by the archaeologist and submitted to the City and the Consulting Tribes for their review and comment. After approval from all parties, the final reports and site/isolate records are to be submitted to the local CHRIS Information Center, the City, and the Consulting Tribes.

5.19 Utilities / Service Systems

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

The information and analysis herein rely on the following reports and technical data:

- *Final SB610 Water Supply Assessment Falcon Glen Tentative Tract No. 54328* (Water Supply Assessment), prepared by Cannon, dated February 9, 2023, revised November 18, 2024, provided as Appendix I1.
- *TTM #54328 15th West and Avenue S, Sewer Area Study* (Sewer Study), prepared by D&D Engineering, Inc., dated February 5, 2024, provided as Appendix I2.

Water

The proposed project would be served by LACWD District No. 40 (LACWD) for water supply services. Specifically, water service would be provided by utilizing the tanks in the adjacent ANSP by connecting into the existing water lines in Tangerine Street and Cherry Blossom Street.

According to the General Plan Utilities and Service Systems discussion, the City is served by both the Palmdale Water District (PWD), which services approximately 187 square miles in northeastern Los Angeles County and by LACWD, which encompasses approximately 232 square miles in the County. LACWD's

system consists of approximately 1,057 miles of water (potable and recycled) lines and 71 potable water tank reservoirs.

The 2020 Urban Water Management Plan (UWMP) is LACWD's most recently adopted urban water management plan; it describes water supplies that will be used by the portion of the City which it services to fulfill projected future demand. LACWD served a population of 205,000 residents in 2020 and is projected to serve an estimated future population of 263,000 by 2045.

According to the UWMP, LACWD purchases water from Antelope Valley-East Kern Water Agency (AVEK). AVEK is a regional water agency formed in 1959 to supplement Antelope Valley groundwater supplies with surface water supplies. AVEK receives water from the State Water Project (SWP) and Antelope Valley Groundwater Basin and allocates water to municipalities, ranchers, and agricultural water users. AVEK receives the majority of its water supplies from the SWP, and AVEK is able to purchase additional SWP supplies from the Department of Water Resources (DWR) when available. To prepare for scenarios when AVEK's supplies from the SWP and LACWD's groundwater do not meet demands during dry years, LACWD has purchased excess imported water from AVEK and "banked" it in the local groundwater basin to use for future dry years. To maximize the use of its SWP supplies, AVEK has developed and is planning several groundwater banks including the Westside Water Bank, Antelope Valley Water Bank (AVWB), and the Water Supply Stabilization Project 2. AVEK is also a participant in the Semitropic water bank.

Wastewater

The proposed project would be served by the City of Palmdale. Specifically, the project's proposed gravity flow sewer system would connect with the existing 15-inch sewer line stubbed at the eastern end of Tangerine Street in the adjacent ANSP area.

According to the General Plan Utilities and Service Systems discussion, the Palmdale Utilities Services Division (PUSD or Division) manages the City's wastewater discharge and sewage system. The Division prepared a Sewer System Management Plan (SSMP) in 2014 to comply with the State Water Resources Control Board (SWRCB) Order 2006-0003: Statewide General Waste Discharge Requirements for Sanitary Sewer Systems. The City owns, operates, and maintains a wastewater collection system originally managed by the LACDPW Sewer Maintenance District. The PUSD manages wastewater collection for the City's entire service area, which encompasses approximately 105 square miles. Most of the collected wastewater flows to the Palmdale Water Reclamation Plant (PWRP), which is managed in Los Angeles County Sanitation District #20 (LACSD) and can reclaim up to 12 million gallons per day (mgd). Some wastewater is sent to the Lancaster Water Reclamation Plant, located approximately 16 miles north of the City.

The PWRP provides primary, secondary, and tertiary water treatment with a design capacity of 12 mgd. Treatment includes preliminary mechanically cleaned bar screens, aerated grit chambers, and settling tanks; secondary anaerobic digester, air compressors, and clarifier tanks; and tertiary chemical treatments with aqueous ammonia, sodium hypochlorite, and chlorine contact tanks. The fully treated water is then reused in municipal and agricultural settings or stored in recycled water reservoirs.

Stormwater Drainage

The overall drainage pattern for the offsite watershed runs from south to north. Offsite drainage to the project site from the south is collected by three culvert crossings located under Avenue S. The westernmost culvert outflows to an onsite debris basin. Storm runoff from this debris basin is collected by an onsite underground storm drain system before ultimately discharging to a detention basin on the northwest side of the project site. The middle culvert crossing outflows to an onsite interconnected system of detention basins and onsite culverts that ultimately discharge to the same detention basin on the northwest side of the project site as the runoff from the westernmost culvert.

Electricity, Natural Gas and Telecommunications

Electricity and natural gas services would be provided by SCE and SoCalGas. A variety of companies in

Palmdale and the surrounding area provide telecommunications utilities, including phone, internet, and television. Because electricity, gas, and telecommunications facilities are available in the local area, it is anticipated that the project would connect to the existing facilities within existing improved roadways.

Solid Waste

The City contracts with Waste Management to provide complete residential and commercial trash, organic waste processing, and recycling services, including residential curbside trash, recycling and yard waste collection, pickup of bulky items, and electronic waste pickup, for all single and multi-family homes, as well as businesses. Waste from the City is disposed of at a number of solid waste facilities, with the majority of waste disposed at the Antelope Valley Public Landfill, located at 1200 W. City Ranch Road.

The project's solid waste needs would also be served by the Antelope Valley Public Landfill, which is located approximately 0.5-mile north of the project site. Based on the California Department of Resources Recycling and Recovery (CalRecycle), *Solid Waste Information System (SWIS)* website, the Antelope Valley Public Landfill has a maximum permitted throughput of 5,548 tons per day. The facility's maximum capacity is 30,200,000 cubic yards per day, with a remaining capacity of 17,911,225 cubic yards.

a) Require or result in the relocation or construction of new or expanded water, or wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?

Less Than Significant Impact.

Water

The proposed development would be served by LACWD for water supply services. Private residential, irrigation, and fire lines would be constructed on-site to connect to existing water facilities adjacent roadways. Payment of standard water connection fees and ongoing user fees would ensure that the project's impacts on existing water facilities are adequately offset. The proposed project is consistent with land uses anticipated for the area and would not induce substantial unplanned population growth; refer to Section 5.14, *Population/Housing*. Therefore, it is not anticipated that project implementation would require construction of new or expanded water facilities. Impacts would be less than significant.

Wastewater

The proposed project would be served by the City of Palmdale. Specifically, the project's proposed gravity flow sewer system would connect with the existing 15-inch sewer line stubbed at the eastern end of Tangerine Street in the adjacent ANSP area. As discussed in the Sewer Study that was prepared for the proposed project, per the LACDPW Standard SC4, an existing 15-inch sewer pipe is considered at full capacity when it is three-quarters full. The existing three-quarters full capacity of the existing 15-inch sewer line at the eastern end of Tangerine Street is 3.67 cubic feet per second (CFS).

As discussed in the *Sewer Study* that was prepared for the proposed project, wastewater generation factors contained in Table 1, *Loadings for Each Class of Land Use*, provided by the LACSD, were used to calculate the project's wastewater generation and peak flow. Based on this table, the average daily discharge of domestic sewage is 260 gallons per day for single family homes and 0.015 CFS per acre for commercial zones. With 708 residential units proposed under the project, this results in a wastewater generation rate of 0.47 mgd and 0.72 CFS.

The Palmdale WRP provides primary, secondary, and tertiary wastewater treatment with a design capacity of 12 mgd. Wastewater generation from the project would represent

approximately 3.9 percent of the daily design capacity at the Palmdale WRP. As such, no physical alterations of the Palmdale WRP would be needed to accept and treat the project's wastewater and impacts would be less than significant.

Stormwater

In the project site's developed condition, the proposed detention basin on the northwest side of the project site would outlet to an existing culvert crossing located under the California Aqueduct. The easternmost culvert crossing under Avenue S would connect to an onsite underground storm drain system and outflow to a detention basin on the east side of the project. Outflow from this basin would be conveyed to a second detention basin located at the northeast part of the project site. This second detention basin would outlet to an existing California Aqueduct culvert crossing.

The incoming flow from the easternmost culvert crossing under Avenue S would be regulated per a drainage agreement with the owners of the proposed Tentative Tract 65813 in process by Quail Valley, LLC. Quail Valley has agreed to dedicate easements or right-of-way for interim measures and/or construct ultimate measures upstream and offsite of our project site to manage storm water debris and peak flows depending on which project proceeds first. These interim and/or ultimate upstream measures would permit outflows to continue downstream without any required further mitigation regardless of whether Tentative Tract 65813 is constructed.

In addition, runoff from the existing Tract 53888 to the west of the project site would flow to the proposed project. Runoff from this site would be captured by catch basins and routed by the underground storm drain system to the detention basin on the northwest side of the project site.

Construction of the new storm drain improvements would be subject to compliance with all applicable local, State, and Federal laws, ordinances, and regulations. Compliance with the relevant laws, ordinances, and regulations would ensure the project's construction-related environmental impacts associated with the proposed storm drain improvements are reduced to a less than significant level.

Dry Utilities

Electricity and natural gas services would be provided by SCE and SoCalGas. Construction of the project's dry utilities would be subject to compliance with all applicable local, State, and Federal laws, ordinances, and regulations, as well as any site-specific conditions of approval. In addition, impacts to the physical environment associated with the project-related electricity, gas, and telecommunications facilities that would be constructed to service the project are inherent to the project's construction phase, and all potential impacts have been evaluated throughout this IS/MND under the appropriate topical headings. Where significant impacts are identified, mitigation measures are required to reduce the project's impacts to the maximum extent feasible. There are no environmental impacts that would occur specifically related to the project's proposed electricity, gas, and telecommunications improvements. Therefore, compliance with the relevant laws, ordinances, and regulations would ensure the project's construction-related environmental impacts are reduced to a less than significant level.

b) 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 discussed in Section 5.10, *Hydrology and Water Quality*, of this document, and as identified in the *Water Supply Assessment* that was prepared for the

project, the UWMP based the District's projected water demands on future projected population data and the Gallons Per Capita Day (GPCD) of 225. The UWMP projected water demand for the proposed project is approximately 535.6 acre-feet per year (AFY), as shown in **Table 17, Proposed Project Water Demand**.

The project's calculated water demand is within the parameters of the water allotment for the development using the 2020 UWMP. The UWMP assesses the reliability of the supplies available in a normal year, a single dry year, and during multiple dry years. The following tables below summarize the water supply and demand projections under normal, single and multiple-dry year scenarios (in acre-feet per year [AFY]): **Table 25, Comparison of Water Supplies and Demands for a Normal Year (AFY)**; **Table 26, Comparison of Water Supplies and Demands for a Single Dry Year (AFY)**; and **Table 27, Comparison of Water Supplies and Demands for Multiple-Dry Years (AFY)**. LACWD has adequate water supplies to meet projected demands in all types of water years. During the dry years, the use of banked water will provide the additional water to meet demands. Therefore, the proposed project would not have insufficient water supplies available to serve the project from existing entitlements and resources or require new or expanded entitlements. A less than significant impact would occur.

Table 25: Comparison of Water Supplies and Demands for a Normal Year (AFY)

	2025	2030	2035	2040	2045
Existing Supplies					
AVEK SWP Water[2]	57,300	55,800	54,200	52,700	52,700
District's Groundwater Production Rights[2]	6,789	6,789	6,789	6,789	6,789
District's Unused Federal Reserve Right	3,500	3,500	3,500	3,500	3,500
District's Imported Water Return Flows	10,400	10,400	10,400	10,400	10,400
District/AVEK Lease	2,600	2,600	2,600	2,600	2,600
New Supply from AVEK[3]	1,733	1,733	1,733	1,733	1,733
Recycled Water[2,4]	764	902	1,102	1,302	1,302
Total Supplies[1]	**83,086**	**81,724**	**80,324**	**79,024**	**79,024**
Demands					
Demand Totals[5]	55,164	58,002	61,102	64,402	67,602
Difference (Supply-Demand)	**27,922**	**23,722**	**19,222**	**14,622**	**11,422**

Source: Source: Cannon Corporation, *Final SB610 Water Supply Assessment Falcon Glen Tentative Tract No. 54328*, February 9, 2023 (revised November 18, 2024), Table 5-1

Notes: 1 = Supply total from DWR Table 6-9

2 = Supply total from DWR Table 6-9

3 = New Supply projections are based on anticipated new water supply that will be acquired by AVEK for developers. These projections are consistent with the developer demands (Projections provided by New Water Supply and Development Services for District 40).

4 = Recycled water supply volumes are set equal to projected water demand.

5 = Demand from the Project has been factored in the projected water demand calculation in the 2020 UWMP. Source: 2020 Urban Water Management Plan for District 40, Table 7-2

Table 26: Comparison of Water Supplies and Demands for a Single Dry Year (AFY)

	2025	2030	2035	2040	2045
Existing Supplies					
AVEK SWP Water	5,000	5,000	5,000	5,000	5,000
AVEK Groundwater from Banked Supplies	24,378	27,078	29,978	33,078	36,278
District's Groundwater Production Rights	6,789	6,789	6,789	6,789	6,789
District's Unused Federal Reserve Right	3,500	3,500	3,500	3,500	3,500
District's Imported Water Return Flows	10,400	10,400	10,400	10,400	10,400
District/AVEK Lease	2,600	2,600	2,600	2,600	2,600
New Supply from AVEK	1,733	1,733	1,733	1,733	1,733
Recycled Water	764	902	1,102	1,302	1,302
Total Supplies	**55,164**	**58,002**	**61,102**	**64,402**	**67,602**
Demands					
Demand Totals	55,164	58,002	61,102	64,402	67,602
Difference (Supply-Demand)	**0**	**0**	**0**	**0**	**0**

Source: Source: Cannon Corporation, *Final SB610 Water Supply Assessment Falcon Glen Tentative Tract No. 54328*, February 9, 2023 (revised November 18, 2024), Table 5-2

Notes: 1 = New Supply projections are based on anticipated new water supply that will be acquired by AVK for developers. These projections are consistent with the developer demands (Projections provided by New Water Supply and Development Services for District 40). Return flows from new supply are not included for clarity in interpreting Supply and Demand Assessment tables 7-2, 7-3, and 7-4.

2 = Recycled water supply volumes are projected water use and not reasonably available volumes.

3 = Demand from the Project has been factored in the projected water demand calculation in the 2020 UWMP. Source: 2020 Urban Water Management Plan for District 40, Table 7-3.

Table 27: Comparison of Water Supplies and Demands for Multiple Dry Years (AFY)

		2025	2030	2035	2040	2045
First Year	Existing Supplies					
	AVEK SWP Water	12,500	12,500	12,500	12,500	12,500
	AVEK Groundwater from Banked Supplies	16,878	19,578	22,487	25,578	28,778
	District's Groundwater Production Rights	6,789	6,789	6,789	6,789	6,789
	District's Unused Federal Reserve Right	3,500	3,500	3,500	3,500	3,500
	District's Imported Water Return Flows	10,400	10,400	10,400	10,400	10,400
	District/AVEK Lease	2,600	2,600	2,600	2,600	2,600
	New Supply from AVEK	1,733	1,733	1,733	1,733	1,733
	Recycled Water	764	902	1,102	1,302	1,302
	Total Supplies	**55,164**	**58,002**	**61,102**	**64,402**	**67,602**
	Demands					
	Demand Totals	55,164	58,002	61,102	64,402	67,602
	Difference (Supply-Demand)	**0**	**0**	**0**	**0**	**0**
Second Year	Existing Supplies					
	AVEK SWP Water	32,700	32,700	32,700	32,700	32,700
	AVEK Groundwater from Banked Supplies	0	0	2,278	5,378	8,578
	District's Groundwater Production Rights	6,789	6,789	6,789	6,789	6,789
	District's Unused Federal Reserve Right	3,500	3,500	3,500	3,500	3,500
	District's Imported Water Return Flows	10,400	10,400	10,400	10,400	10,400
	District/AVEK Lease	2,600	2,600	2,600	2,600	2,600
	New Supply from AVEK	1,733	1,733	1,733	1,733	1,733
	Recycled Water	764	902	1,102	1,302	1,302
	Total Supplies	**59,776**	**59,914**	**61,102**	**64,402**	**67,602**
	Demands					
	Demand Totals	55,164	58,002	61,102	64,402	67,602
	Difference (Supply-Demand)	**4,612**	**1,912**	**0**	**0**	**0**
Third Year	Existing Supplies					
	AVEK SWP Water	13,500	13,500	13,500	13,500	13,500
	AVEK Groundwater from Banked Supplies	15,878	18,578	21,478	13,500	13,500
	District's Groundwater Production Rights	6,789	6,789	6,789	6,789	6,789
	District's Unused Federal Reserve Right	3,500	3,500	3,500	3,500	3,500
	District's Imported Water Return Flows	10,400	10,400	10,400	10,400	10,400
	District/AVEK Lease	2,600	2,600	2,600	2,600	2,600
	New Supply from AVEK	1,733	1,733	1,733	1,733	1,733
	Recycled Water	764	902	1,102	1,302	1,302
	Total Supplies	**55,164**	**58,002**	**61,102**	**64,402**	**67,602**
	Demands					
	Demand Totals	55,164	58,002	61,102	64,402	67,602
	Difference (Supply-Demand)	**0**	**0**	**0**	**0**	**0**
	Existing Supplies					

Fourth Year	AVEK SWP Water	25,900	25,900	25,900	25,900	25,900
	AVEK Groundwater from Banked Supplies	3,478	6,178	9,078	12,178	15,378
	District's Groundwater Production Rights	6,789	6,789	6,789	6,789	6,789
	District's Unused Federal Reserve Right	3,500	3,500	3,500	3,500	3,500
	District's Imported Water Return Flows	10,400	10,400	10,400	10,400	10,400
	District/AVEK Lease	2,600	2,600	2,600	2,600	2,600
	New Supply from AVEK	1,733	1,733	1,733	1,733	1,733
	Recycled Water	764	902	1,102	1,302	1,302
	Total Supplies	**55,164**	**58,002**	**61,102**	**64,402**	**67,602**
	Demands					
	Demand Totals	55,164	58,002	61,102	64,402	67,602
	Difference (Supply-Demand)	**0**	**0**	**0**	**0**	**0**
Fifth Year	Existing Supplies					
	AVEK SWP Water	18,200	18,200	18,200	18,200	18,200
	AVEK Groundwater from Banked Supplies	11,178	13,878	16,778	19,878	23,078
	District's Groundwater Production Rights	6,789	6,789	6,789	6,789	6,789
	District's Unused Federal Reserve Right	3,500	3,500	3,500	3,500	3,500
	District's Imported Water Return Flows	10,400	10,400	10,400	10,400	10,400
	District/AVEK Lease	2,600	2,600	2,600	2,600	2,600
	New Supply from AVEK	1,733	1,733	1,733	1,733	1,733
	Recycled Water	764	902	1,102	1,302	1,302
	Total Supplies	**55,164**	**58,002**	**61,102**	**64,402**	**67,602**
	Demands					
	Demand Totals	55,164	58,002	61,102	64,402	67,602
	Difference (Supply-Demand)	**0**	**0**	**0**	**0**	**0**

Source: Source: Cannon Corporation, *Final SB610 Water Supply Assessment Falcon Glen Tentative Tract No. 54328*, February 9, 2023 (revised November 18, 2024), Table 5-3

Notes: 1 = New Supply projections are based on anticipated new water supply that will be acquired by AVK for developers. These projections are consistent with the developer demands (Projections provided by New Water Supply and Development Services for District 40). Return flows from new supply are not included for clarity in interpreting Supply and Demand Assessment tables 7-2, 7-3, and 7-4.

2 = Recycled water supply volumes are projected water use and not reasonably available volumes.

3 = Demand from the Project has been factored in the projected water demand calculation in the 2020 UWMP. Source: 2020 Urban Water Management Plan for District 40, Table 7-3.

c) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?

Less Than Significant Impact. The proposed project would be graded to allow for a gravity flow sewer system. As discussed previously, the gravity flow sewer system would be designed to flow from east to west in order to connect with the existing 15-inch sewer line stubbed at the eastern end of Tangerine Street in the ANSP area. This existing sewer line flows west to The Groves, where it connects with a 15-inch sewer mainline. This sewer line then flows west and north, connecting with the Elizabeth Lake Road trunk sewer line.

As discussed in Impact 5.19(a) above and based on the *Sewer Study* that was prepared for the proposed project, the series of sewer lines through the ANSP area have been sized to accommodate the capacity that would be necessary to serve the project site. Therefore, the project would not result in a determination by the wastewater treatment provider that would

serve the project that it has inadequate capacity to serve the projected demand in addition to the provider's existing commitments. Impacts would be less than significant.

d) Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?

Less Than Significant Impact.

Construction Impacts

Project construction is not anticipated to generate significant quantities of solid waste with the potential to affect the capacity of regional landfills. Trash and debris generated during project construction would be disposed of at the Antelope Valley Public Landfill located at 1200 City Ranch Road in the City of Palmdale.

All construction activities would be subject to conformance with relevant Federal, State, and local requirements related to solid waste disposal. Specifically, the project would be required to demonstrate compliance with the California Integrated Waste Management Act of 1989 (AB 939), which requires all California cities to "reduce, recycle, and re-use solid waste generated in the State to the maximum extent feasible." The California Integrated Waste Management Act of 1989 requires that at least 50 percent of waste produced is recycled, reduced, or composted.

The project would also be required to demonstrate compliance with the most recent Green Building Code, which includes design and construction measures that act to reduce construction-related waste though material conservation measures and other construction-related efficiency measures. Compliance with these programs would ensure the project's construction-related solid waste impacts would be less than significant.

Operational Impacts

The City contracts with Waste Management to provide complete residential and commercial trash, organic waste processing, and recycling services, including residential curbside trash, recycling and yard waste collection, pickup of bulky items, and electronic waste pickup, for all single and multi-family homes, as well as businesses.

Based on CalRecycle's waste generation rates for residential development (12.23 pounds of waste per household per day), project operations are expected to generate approximately 4.39 tons per day, or approximately 1,602.35 tons per year. This represents less than one percent of the Antelope Valley Public Landfill's maximum daily permitted throughput capacity of 5,548 tons per day, identified above. As such, the project is not anticipated to 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. The project's operational solid waste impacts would be less than significant.

e) Comply with federal, State, and local management and reduction statutes and regulations related to solid waste?

Less Than Significant Impact.

The proposed project is subject to the following regulations pertaining to solid waste:

- California Integrated Waste Management Act of 1989 (AB 939). AB 939 requires cities and counties to reduce the amount of solid waste entering existing landfills through recycling, reuse, and waste prevention efforts. These efforts have included permitting procedures for waste haulers and handlers. The County of Los Angeles Countywide Integrated Waste Management Plan (CIWMP) outlines goals, policies, and programs

Los Angeles County and its cities would implement to create an integrated and cost-effective waste management system that complies with the provisions of AB 939 and its diversion mandates.

- The CALGreen Code, which is applicable to the construction of new buildings by addressing construction waste reduction, disposal, and recycling. Demolition and construction activities would recycle or reuse a minimum of 65 percent of the non-hazardous construction and demolition waste.
- AB 341 requires diversion of a minimum of 75 percent of operational solid waste.

The proposed project would be required to comply with the CIWMP's requirement to divert up to 65 percent of its solid waste from area landfills. In conformance with the CIWMP, the Project Applicant is required to work with future contract refuse haulers to implement recycling and waste reduction programs for solid wastes. With mandatory compliance to AB 939, AB 341, and the City's programs and policies, impacts related to solid waste statutes and regulations would be less than significant.

[13] California Department of Resources Recycling and Recovery (CalRecycle) Solid Waste Information System (SWIS) website (19-AA-5624), SWIS Facility/Site Activity Details (ca.gov) Accessed December 6, 2023.

5.20 Wildfire

Would the proposed project:				
Issues	**Potentially Significant Impact**	**Less Than Significant Impact with Mitigation Incorporated**	**Less Than Significant Impact**	**No Impact**
a) Substantially impair an adopted emergency response plan or emergency evacuation plan?		✓		
b) 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?		✓		
c) Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?		✓		
d) Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?		✓		

a) Substantially impair an adopted emergency response plan or emergency evacuation plan?

Less Than Significant Impact With Mitigation Incorporated. CalFire manages significant fire hazards in the state through its Fire and Resources Assessment Program (FRAP). These maps place areas of the state into different fire hazard severity zones (FHSZ) based on a hazard scoring system using subjective criteria for fuels, fire history, terrain influences, housing density, and occurrence of severe fire weather where urban conflagration could result in catastrophic losses. As part of this mapping system, land where CalFire is responsible for wildland fire protection and generally located in unincorporated areas is classified as a State Responsibility Area (SRA). Where local fire protection agencies are responsible, the land is classified as a Local Responsibility Area (LRA).

As discussed in Section 5.9, *Hazards and Hazardous Materials*, of this IS/MND, according to the CalFire FRAP website, the project site is mapped as an SRA with portions of the site located within a VHFHSZ.

The City's General Plan Safety Element outlines the goals and policies related to hazards and safety in the City, including those related to wildfire. The Safety Element includes evacuation routes, military installations, peak load water supply requirements, and minimum road widths and clearances around structures, as those items relate to identified fire and

geologic hazards. It also includes the following goals and policies pertaining to wildfire, which are applicable to the project:

- Goal SE-2: Minimize public health, safety, and welfare impacts resulting from wildfire hazards.
- Policy SE-2.3 Wildland Development. Require that developments located in VHFSZ 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-2.7 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.
- 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-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 CalFire, 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).

Because the proposed project site is located within a VHFHSZ, a potentially significant impact would occur relative to wildfire impacts and the project may substantially impair an adopted emergency response plan or emergency evacuation plan. As such, mitigation is required for this impact. Specifically, in order to comply with Policy SE-2.12, Fire Protection Plans (require fire protection plans for all new development in the VHFSZ), the project would be required to implement Mitigation Measure WF-1, which requires the Project Applicant to prepare a site-specific Fire Protection Plan (FPP) for the project and submit it to the City of Palmdale Public Works Department (Engineering Division) for review and approval, prior to the issuance of building permits.

As discussed previously, fire protection services for the project site would be provided by the LACFD. The Planning Division, Land Development Unit, Forestry Division, and Health Hazardous Materials Division of the LACFD have reviewed the proposed project and provided comments as part of the noticing process for the project that occurred in August 2024. The Planning Division commented that upon approval of the annexation associated with the project site into the City of Palmdale, the City's Fire Facilities Development Impact Fee collected by the City would mitigate any impacts to fire protection services that result from the project site's development. As discussed in Section 5.15, *Public Services,* of this IS/MND, the Project Applicant would be required to pay fees to the City in accordance with PMC Chapter 3.42, *Fire Facilities Development Impact Fee Requirements,* which would mitigate any impacts to fire protection services that result from the project site's development. Payment of these fees would help fund the acquisition, design, and construction of new fire facilities in accordance with General Plan Public Facilities, Services and Infrastructure Element Policy PFSI-2.2: Fire Protection (Coordinate with and assist the LACFD in planning for future fire station sites in Palmdale and facilitate location and construction of fire stations in conjunction with other City facilities [such as parks or municipal buildings] where feasible) and would minimize the project's operational impacts to fire protection services to the greatest extent practicable.

In addition, LACFD has also provided a letter citing conditions of approval for the project in December 2018. These conditions include that the following access, water system and fuel modification requirements be incorporated into the project. Accordingly, the project would comply with all code and ordinance requirements for access, water mains, fire flows and fire hydrants, for fire protection purposes, which would be described in the project's FPP to be prepared in accordance with Mitigation Measure WF-1.

Access Requirements

1. The dimensions of the approved Fire Apparatus Access Roads shall be maintained as originally approved by the fire code official. (Fire Code 503.2.2.1)

2. Provide Fire Department Access Roads, exclusive of shoulders and an unobstructed vertical clearance "clear to sky", to within 150 feet of all portions of the exterior walls of the first story of each building, as measured by an approved route around the exterior of the building. (Fire Code 503.1.1 & 503.2.1)

3. Provide a minimum width of 36 feet for parallel parking on both sides of the Fire Apparatus Access Road (public streets) as indicated in the cross-sections.

4. Provide a minimum width of 34 feet for parallel parking on both sides of the Fire Apparatus Access Road (public streets) for the cul-de-sacs less than 700 feet in length as indicated in the cross-sections.

5. Provide roundabouts as noted in the cross-section.

6. Approved building address numbers, building numbers or approved building identification shall be provided and maintained so as to be plainly visible and legible from the street fronting the property. The numbers shall contrast with their background, be Arabic numerals or alphabet letters, and be a minimum of 4 inches high with a minimum stroke width of 0.5 inch. (Fire Code 505.1.)

7. Additional access requirements will be addressed with further development of Lots 429, 430, 431 and 432.

8. A second means of access is required prior to the completion of the 76th home. The total number of homes includes Tentative Tract Maps 53840, 54116, 54117, and 54438. The second means of access shall exit to City Ranch Road. The paved width of the second means of access

is 26 feet, with the posting "No Parking-Fire Lane". The width of the existing bridge is adequate for temporary use only. Signage is required to show the direction of travel. Prior to the completion of the 900th home, all improvements, including the new bridge, shall be completed for the second means of access.

Water System Requirements

1. All fire hydrants shall measure 6"x 4"x 2-1/2" brass or bronze, conforming to current American Water Works Association (AWWA) standard C503 or approved equal, and shall be installed in accordance with the County of Los Angeles Fire Code.

2. All required public fire hydrants shall be installed, tested and accepted prior to beginning construction. (Fire Code 501.4)

3. The required fire flow for the public fire hydrants for the single family residential detached homes less than a total square footage of 3,600 feet is 1,250 gallons per minute (gpm) at 20 psi residual pressure for 2 hours with one public fire hydrant flowing. Any single-family residential home 3,601 square feet or greater shall comply as well (Table B105.1 of the Fire Code in Appendix B.)

4. The required fire flow for the public fire hydrants for the project's commercial development is 4,000 gpm at 20 psi residual pressure for 4 hours. Three (3) public fire hydrants flowing simultaneously may be used to achieve the required fire flow. (Fire Code 507.3 & Appendix B105.1)

   a. The fire flow is subject to reduction.

   b. An approved automatic fire sprinkler system is required for the proposed buildings within this development. Submit design plans to the Fire Department Sprinkler Plan Check Unit for review and approval prior to installation.

5. Install 44 public fire hydrants as noted on the plans by the Land Development Unit.

   a. Thirty-nine (39) public fire hydrants are required for the single-family residential detached homes.

   b. Five (5) public fire hydrants are required for the commercial development.

6. Fire Hydrant Phasing Requirements:

   Phase 1 – Install 7 public fire hydrants, which includes 2 public fire hydrants for Phase 3.

   Phase 2 – Install 8 public fire hydrants.

   Phase 3 – Install 5 public fire hydrants, which includes 1 public fire hydrant for Phase 4, and 2 public fire hydrants for Phase 6.

   Phase 4 – Install 5 public fire hydrants, which includes 2 public fire hydrants (commercial fire flow requirement) for Phase for Phase 9.

   Phase 5 – Install 5 public fire hydrants, which includes 1 public fire hydrant for Phase 6, and 1 public fire hydrant for Phase 8.

   Phase 6 – Install 2 public fire hydrants. The 2 public fire hydrants are in addition to the 2 public fire hydrants for Phase 3, and 1 public fire hydrant for Phase 5.

   Phase 7 – Install 4 public fire hydrants, which includes 1 public fire hydrant for Phase 8.

   Phase 8 – Install 3 public fire hydrants (commercial fire flow requirement), which are also required for Phase 10 (commercial development).

Phase 9 – Install 1 public fire hydrant (commercial fire flow requirement), which are also required for Phase 10 (commercial development).

Phase 10 – Install 1 public fire hydrant (commercial fire flow requirement). The public fire hydrant is in addition to the 3 public fire hydrants (commercial fire flow requirement) for Phase 8 and the public fire hydrant for Phase 9 (commercial fire flow requirement).

7. Additional water system requirements for fire flow and fire hydrant locations will be addressed with further development of Lots 429, 430, 431 and 432.

Fuel Modification

This property is located within the area described by the LACFD as a VHFHSZ. A Preliminary Fuel Modification Plan shall be submitted and approved prior to public hearing to the Department's Fuel Modification Unit.

The project area and surrounding area have access to several fully improved roadways, including Avenue S and Tierra Subida Avenue, which provide full emergency access to the site. Construction activities, which may temporarily restrict vehicular traffic, would be required to comply with the project's construction traffic management plan to facilitate the passage of persons and vehicles through/around any required road closures, which would be reviewed and approved by the City and LACFD prior to commencement of construction activities. In addition, all proposed construction activities would be subject to compliance with all applicable State and local regulations in place to reduce risk of construction-related fire and to address potential ignition sources during construction, such as installation of temporary construction fencing to restrict site access and maintenance of a clean construction site. These procedures would also be described in the project's FPP to be prepared in accordance with Mitigation Measure WF-1.

Emergency Evacuation Routes

The Antelope Valley Freeway (SR-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. In addition, the project would be required to comply with Mitigation Measure WF-2, which requires the inclusion of fire safety evacuation procedures in the FPP and ensuring that evacuation routes in the project area remain free of obstructions in conjunction with development of the project.

Conclusion

Therefore, with implementation of Mitigation Measures WF-1 and WF-2, the project would not substantially impair an adopted emergency response plan or emergency evacuation plan during construction or operation. This impact would be reduced to a less than significant impact.

Mitigation Measures

WF-1 **Fire Protection Plan.** The Project Applicant shall submit a project-specific Fire Protection Plan (FPP) 90 days prior to commencement of ground disturbing activities to the City of Palmdale Planning Manager and City of Palmdale Public Works Department (Engineering Division) for review and approval in consultation with the Los Angeles County Fire Department (LACFD). The FPP shall incorporate construction and operational (design) standards pertaining to access, water system, and fuel modification requirements to reduce the threat of wildfires, and

other elements necessary to comply with City and LACFD regulations. All fire protection measures and features identified in FPP shall be implemented in conjunction with development of the project.

WF-2 **Evacuation Routes.** The Project Applicant shall include provisions within the Fire Protection Plan (FPP) (see Mitigation Measure WF-1) for establishing fire safety evacuation procedures and ensuring that evacuation routes in the project area remain free of obstructions in conjunction with development of the project. Construction workers shall receive training on the evacuation plans and routes prior to commencement of construction activities.

b) 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 With Mitigation Incorporated. The project site is relatively flat, and no slopes are present on-site or on adjacent lands that would exacerbate wildfire risks or accelerate the spread of wildfire. Landscaping planted for visual enhancement purposes is proposed with the project; however, such plantings would not substantially change or increase the potential risk for wildfire. In addition, as described under Impact 5.20(a) above, conformance with the code and ordinance requirements for construction, access, water mains, fire flows and fire hydrants, for fire protection purposes, as well as the procedural review of the proposed project by the City and LACFD would reduce risks associated with exacerbating wildfire risks due to slope, prevailing winds, or other factors that would expose occupants to pollutants from a wildfire or the uncontrolled spread of wildfire.

As discussed in Impact 5.20(a) above, the project site's location within a VHFHSZ necessitates the preparation of a project-specific FPP, in order to comply with the City's FPP requirement for all new development within a VHFHSZ. As such, the project could result in a potentially significant impact relative to exacerbating wildfire risks and exposing project occupants to pollutant concentrations from a wildfire. However, the project's FPP, required as part of Mitigation Measure WF-1, would identify construction and operational standards pertaining to access, water system, and fuel modification requirements, which would reduce wildfire risks associated with the project's construction and operation. Therefore, this impact would be reduced to less than significant with the incorporation of Mitigation Measure WF-1.

c) Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?

Less Than Significant Impact With Mitigation Incorporated. As part of project implementation, project-related infrastructure would be required to meet minimum California Building Code and California Fire Code standards for fire safety. The City would condition the proposed project to provide a minimum of fire safety and support fire suppression activities, including compliance with state and local fire codes, fire sprinklers, a fire hydrant system, paved access, and secondary access routes. These features would be subject to review by the LACFD to ensure that emergency vehicles may respond quickly to potential occurrences of wildfire.

As discussed in Impact 5.20(a) above, the project site's location within a VHFHSZ necessitates the preparation of a project-specific FPP, in order to comply with the City's FPP requirement for all new development within a VHFHSZ. As such, the project could result in a potentially significant impact relative to exacerbating wildfire risks due to the installation or

maintenance of associated infrastructure. However, the project's FPP, required as part of Mitigation Measure WF-1, would identify construction and operational standards pertaining to access, water system, and fuel modification requirements, which would reduce wildfire risks associated with the project's construction and operation. Therefore, this impact would be reduced to less than significant with the incorporation of Mitigation Measure WF-1.

d) Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?

Less Than Significant Impact With Mitigation Incorporated. The project would not include any large slopes that could be subject to landslide hazards, and the proposed drainage system for the project is designed to ensure that the project would not be subject to flood hazards. In addition, as described previously, conformance with the code and ordinance requirements for construction, access, water mains, fire flows and fire hydrants, for fire protection purposes, as well as the procedural review of the proposed project by the City and LACFD would ensure the proposed project does not expose people or structures to significant risks such as downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes.

As discussed in Impact 5.20(a) above, the project site's location within a VHFHSZ necessitates the preparation of a project-specific FPP, in order to comply with the City's FPP requirement for all new development within a VHFHSZ. As such, the project could result in a potentially significant impact relative to exposing people or structures to significant risks, including downslope or downstream flooding or landslides as a result of runoff, post-fire slope stability or drainage changes. However, the project's FPP, required as part of Mitigation Measure WF-1, would identify construction and operational standards pertaining to access, water system, and fuel modification requirements, which would reduce wildfire risks associated with the project's construction and operation. Therefore, this impact would be reduced to less than significant with the incorporation of Mitigation Measure WF-1.

5.21 Mandatory Findings of Significance

Would the proposed project:				
Issues	**Potentially Significant Impact**	**Less Than Significant Impact with Mitigation Incorporated**	**Less Than Significant Impact**	**No Impact**
a) 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?		✓		
b) 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.)		✓		
c) Have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?		✓		

a) 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?

Less Than Significant Impact With Mitigation Incorporated. As discussed in Section 5.4, *Biological Resources*, after implementation of Mitigation Measures BIO-1 through BIO-6, the proposed project would result in less than significant impacts to biological resources. Similarly, as discussed in Sections 5.5, *Cultural Resources*, Section 5.7, *Geology and Soils*, and Section 5.18, *Tribal Cultural Resources*, after implementation of Mitigation Measures CR-1, CR-2, CR-3, GEO-2, and TCR-1 through TCR-4, the proposed project would result in less than significant impacts to human remains, archaeological resources, paleontological resources, and tribal cultural resources.

b) Have impacts that are individually limited, but cumulatively considerable?

Less Than Significant Impact With Mitigation Incorporated. A significant impact may occur if a proposed project, in conjunction with related projects, would result in impacts that are less than significant when viewed separately, but would be significant when viewed together. As concluded in Sections 5.1 through 5.20, the proposed project would not result in any significant and unavoidable impacts in any environmental categories with implementation of project mitigation measures. Implementation of mitigation measures at the project-level would reduce the potential for the incremental effects of the proposed project to be considerable when viewed in connection with the effects of past projects, current projects, or probable future projects. Project impacts would be less than significant with mitigation incorporated.

c) Have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?

Less Than Significant Impact With Mitigation Incorporated. Previous sections of this Initial Study reviewed the proposed project's potential impacts related to aesthetics, air quality, noise, hazards and hazardous materials, traffic, and other issues. As concluded in these previous discussions, the proposed project would not have environmental effects which would cause substantial adverse effects on human beings, either directly or indirectly, following conformance with the existing regulatory framework and mitigation measures identified. Further, as a residential development, project features would be designed to meet the needs of humans and are not anticipated to result in direct or indirect adverse effects. Impacts would be less than significant with mitigation incorporated.

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