Initial Study/Mitigated Negative Declaration for the Primrose Residential Project, Hesperia, San Bernardino County, California

JULY 2025

PREPARED FOR

San Luis Concrete Corp.

PREPARED BY

SWCA Environmental Consultants

INITIAL STUDY/MITIGATED NEGATIVE DECLARATION FOR THE PRIMROSE RESIDENTIAL PROJECT, HESPERIA, SAN BERNARDINO COUNTY, CALIFORNIA

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1 INTRODUCTION

San Luis Concrete Corp. (project applicant) is proposing to develop a 36-unit multi-family residential development on a 2.28-acre property in the City of Hesperia in San Bernardino County, California.

Project Title:	Primrose Residential Project
Lead Agency:	City of Hesperia
Lead Agency Staff Contact:	Edgar Gonzalez, Senior Planner egonzalez@hesperiaca.gov (760) 947-1330
Project Applicant:	San Luis Concrete Corp.

1.1 Project Location

The project would be located on a 2.28-acre parcel (Assessor Parcel Number [APN] 3057-131-33) located in the city of Hesperia, California (herein referred to as the project site). The project site is located within the northwestern side of the city in the Medium Density Residential (MDR) zone and is located directly southwest of the intersection of Primrose Avenue and Yucca Street (see Figure 1 and Figure 2).

1.2 Environmental Setting

The project site is undeveloped with the exception of a chain link fence that bisects the site from east to west. The project site has nearly level topography and supports disturbed and ruderal vegetation. Past and existing site disturbance includes vegetation removal and trash piles. The site has no known historic uses, and there are no known historic sources of contamination at the site. No mapped or observed surface water features are present on the site.

The project site is surrounded by low-density single-family residential uses to the south and west, Primrose Avenue and undeveloped land to the east, and Yucca Street and a self-storage facility owned by Extra Space Storage to the north. Future site access would be provided from Primrose Avenue, an existing paved, north-south directed street consisting of two lanes (one in each direction), as well as Yucca Street, an existing paved east-west directed street consisting of two lanes (one in each direction). Primrose Avenue ends immediately north of the project site at the intersection with Yucca Street and continues south past the project site for approximately 900 feet before intersecting with Olive Street. Yucca Street continues east past the project site approximately 700 feet and continues east approximately 130 feet north of the intersection with Maple Avenue, ending at the intersection with Cottonwood Avenue . Yucca Street continues approximately 300 feet west of the project site before ending at the intersection with Tamarisk Avenue.

The project site is located within the Main Street and Freeway Corridors Specific Plan Area. The Main Street and Freeway Corridors Specific Plan was approved by the City in October 2008 and established a development framework for the Main Street and Freeway Corridors, with the intent of facilitating and encouraging development and improvements along these two corridors to help realize the community's vision for the area. The Specific Plan was most recently updated in July 2021. The 10,640-acre Specific Plan Area includes a range of uses, including industrial, commercial, civic, institutional, residential, mixed-use, and parks and open space. The project site is within the Medium Density Residential (MDR) zone of the Specific Plan Area, which is intended to provide areas for medium-density multi-family housing such as courtyard apartments, condominiums, and walk-up townhomes.



Figure 1. Project vicinity map

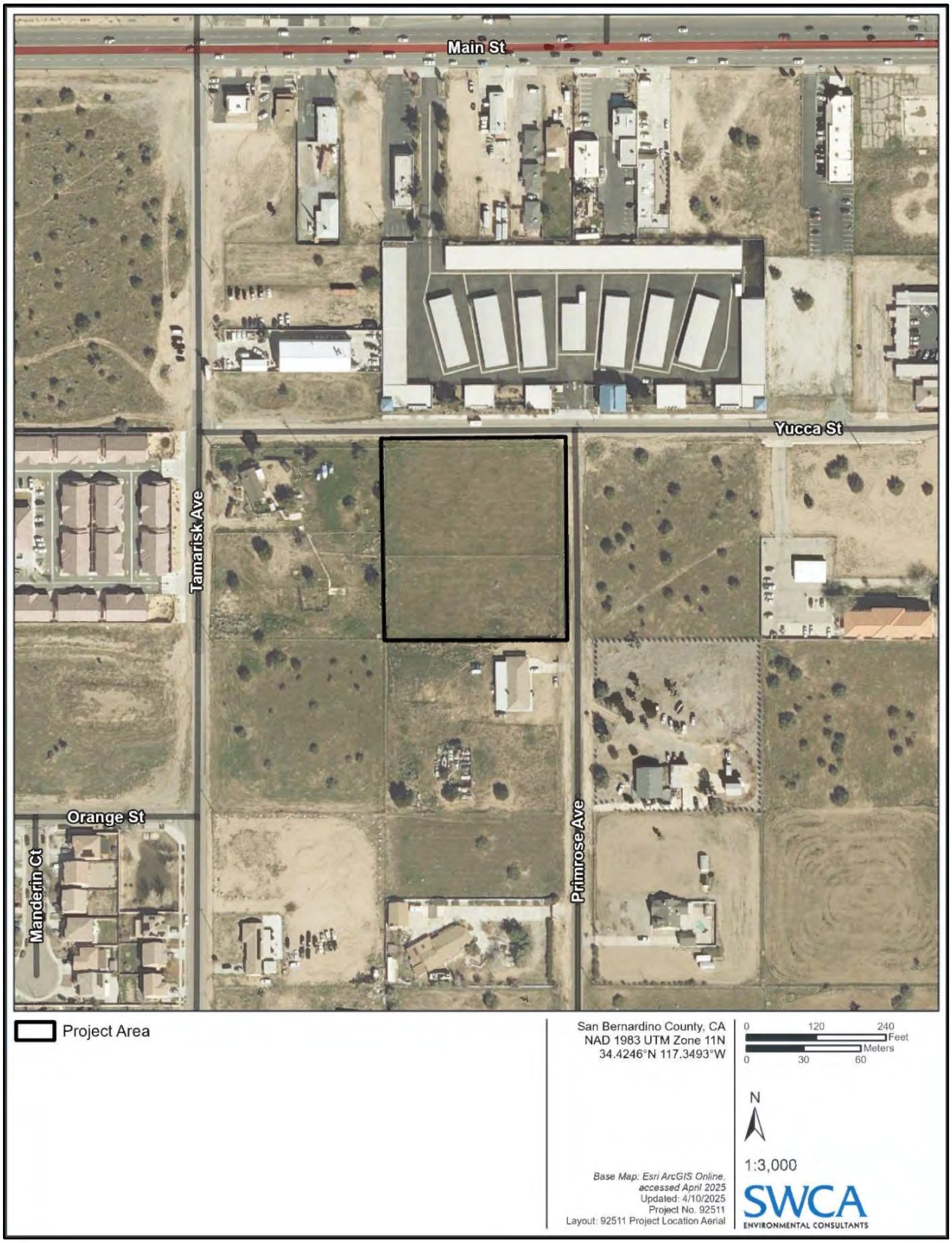


Figure 2. Project location map.

1.2.1 *Historic Site Conditions*

A Site Plan Review for the project was approved by the City in February 2024, and at that time, the City determined that the project was exempt under CEQA. Prior to the initial application for a Site Plan Review from the City and the initiation of environmental review for this project, three Western Joshua trees were removed from the project site without an approved Incidental Take Permit (ITP).

Western Joshua tree became a candidate species under the California Endangered Species Act (CESA) on October 9, 2020, and gained protections under the Western Joshua Tree Conservation Act (WJTCA) on July 10, 2023. As a candidate species under CESA, Western Joshua tree was afforded the same protections under CESA as threatened and endangered species, and "take" of the species, as defined in Fish and Game Code section 86, requires authorization under CESA. The WJTCA prohibits the take of any Western Joshua trees in California unless authorized by the California Department of Fish and Wildlife (CDFW). On July 31, 2024, the CDFW issued a letter to the project applicant regarding a Notice of Violation for the unauthorized removal of Western Joshua trees from the project site.

In accordance with CEQA case law (*Fat v. County of Sacramento* [2002], 97 Cal.App.4th 1270), Lead Agencies must evaluate impacts against conditions existing at the time of CEQA review and are not allowed to "turn back the clock" and evaluate impacts compared to a baseline condition that predates illegal activity (Association of Environmental Professionals 2016). Therefore, baseline conditions, as described in this document, reflect the existing conditions of the project site at the time of initiation of the environmental review of the project. All impacts associated with the removal of Western Joshua trees on the project site will be addressed through CDFW's WJTCA enforcement process. The project applicant is currently preparing an ITP for submittal, and anticipated measures to be required by CDFW include compensatory mitigation. Credits are currently available at the Antelope Valley Conservation Bank. CDFW will officially determine the ratio of compensation.

1.3 Project Description

The project includes the construction of a 36-unit multi-family residential development consisting of nine two-story apartment buildings and associated site improvements including a paved access road and parking areas, a 3,398-square-foot leasing office building with a common recreation room, common outdoor recreation areas, a trash enclosure, a playground, a stormwater infiltration system, perimeter fencing, and other on-site improvements. The project would also include off-site utility improvements along the property frontages along Yucca Street and Primrose Avenue.

Each apartment building would have four residential units, including two 2-bedroom units and two 3-bedroom units. The project would provide 82 total parking spaces on-site, including 72 standard spaces, 6 compact spaces, and 4 spaces compliant with the Americans with Disabilities Act (ADA) accessibility requirements. Thirty-eight of the parking spaces provided on-site would be covered.

1.3.1 *Residential Uses*

The project would include the development of nine two-story apartment buildings. Each apartment building would include four residential units, two 2-bedroom units, and two 3-bedroom units. Each apartment building would have a total floor area of approximately 5,568 square feet. Each residential unit would include a 114-square-foot outdoor patio.

Each two-story apartment building would have a maximum height of 28 feet, 8 inches, and would be located a minimum of 15 feet from the adjacent two-story buildings. The apartment buildings would generally have a craftsman architectural style and be constructed with earthtone colors and materials,

including, but not limited to, stucco walls, wood trim, masonry veneer, and concrete or clay tile roofing. All residential units would be constructed with heating, ventilation, and air conditioning (HVAC) systems, and fire sprinkler systems, and each building rooftop would include solar photovoltaic-ready zones.

1.3.2 *On-Site Improvements*

The two-story apartment buildings would be configured in a courtyard configuration, with walkways and landscaping located between each building. The project site would be accessed via a gated access road that would be constructed along the south and west edges of the site, providing access from both Primrose Avenue and Yucca Street. On-site parking spaces would be provided along the southern and western sides of the property and within a parking lot in the northwestern corner of the site, adjacent to the leasing office building. A 6-foot masonry wall would be constructed along the southern and western property lines. A wrought iron fence with decorative pillars would be erected along the project frontages facing Primrose Avenue and Yucca Street, with the exception of the gated vehicle and pedestrian access points. Other on-site improvements would include common outdoor recreation areas, a playground, a trash enclosure, mailboxes, walking paths, and landscaping.

The project would include the installation of water, wastewater, and stormwater pipelines within the project site. The project includes the construction of an on-site stormwater infiltration system that would include a series of area drains and catch basins located within the site and a proposed underground MC-3500 Stormtech chamber system for infiltration. The Stormtech chamber system would be located under the parking lot in the northwestern corner of the project site. This system would be approximately 2,120 square feet in area and would have a capacity of 9,557 cubic feet (0.22 acre-feet). On-site water and wastewater infrastructure would connect to off-site City pipelines, as described below.

1.3.3 *Off-site Improvements*

The project would include off-site improvements within the City's public right-of-way along Primrose Avenue and Yucca Street, including the construction of a sidewalk, curb, and gutter along the project site frontages and utility connections. Sidewalk ramps would be constructed adjacent to the proposed site access road entrances. Frontage improvements would also include the installation of new 32-foot-tall streetlights along the west side of Primrose Avenue and the south side of Yucca Street, and a fire hydrant on the west side of Primrose Avenue.

The project includes the installation of two new connections to City water lines, including one 2-inch diameter PVP pipe connection to the existing 8-inch diameter waterline beneath Primrose Avenue and a 6-inch diameter PVP pipe connection to the existing 8-inch diameter waterline beneath Yucca Street. The project would also include a new 6-inch diameter sewer lateral connection to a proposed 8-inch diameter sewer main located beneath Primrose Avenue, which will connect with an existing 12-inch diameter sewer main located beneath Yucca Street.

1.3.4 *Construction Details*

Project construction activities would result in approximately 2.73 acres of total site disturbance, including 2,220 cubic yards of cut and 300 cubic yards of fill material. The project would result in an estimated addition of approximately 28,905 square feet of new impervious surface area on-site. Including proposed off-site improvements, the project would result in a total of 39,965 square feet of new impervious surface area. Construction activities would be anticipated to last approximately six to eight months.

The project includes a preliminary erosion control plan, which identifies several stormwater best management practices (BMPs) to be implemented during construction activities. These BMPs include, but are not limited to, installation of gravel bags along the perimeter of the project site, construction of a stabilized construction entrance to the site, installation of an above-ground concrete washout area, construction of a temporary sediment basin, use of fiber rolls and gravel bags for inlet protection, street sweeping, application of soil stabilizer, and application of wind erosion control sprays.

1.4 Required Discretionary Approvals

The potential authorizations, permits, reviews, and approvals from federal, state, and local agencies that would be required for the project are listed in Table 2.

Table 1. Project Authorizations, Permits, Reviews, and Approvals

Permit / Approval / Consultation	Authorizing Agency
Building Permits	City of Hesperia
Encroachment Permit	City of Hesperia
CEQA Environmental Compliance	City of Hesperia
California Endangered Species Act/Western Joshua Tree Conservation Act Compliance	California Department of Fish and Wildlife

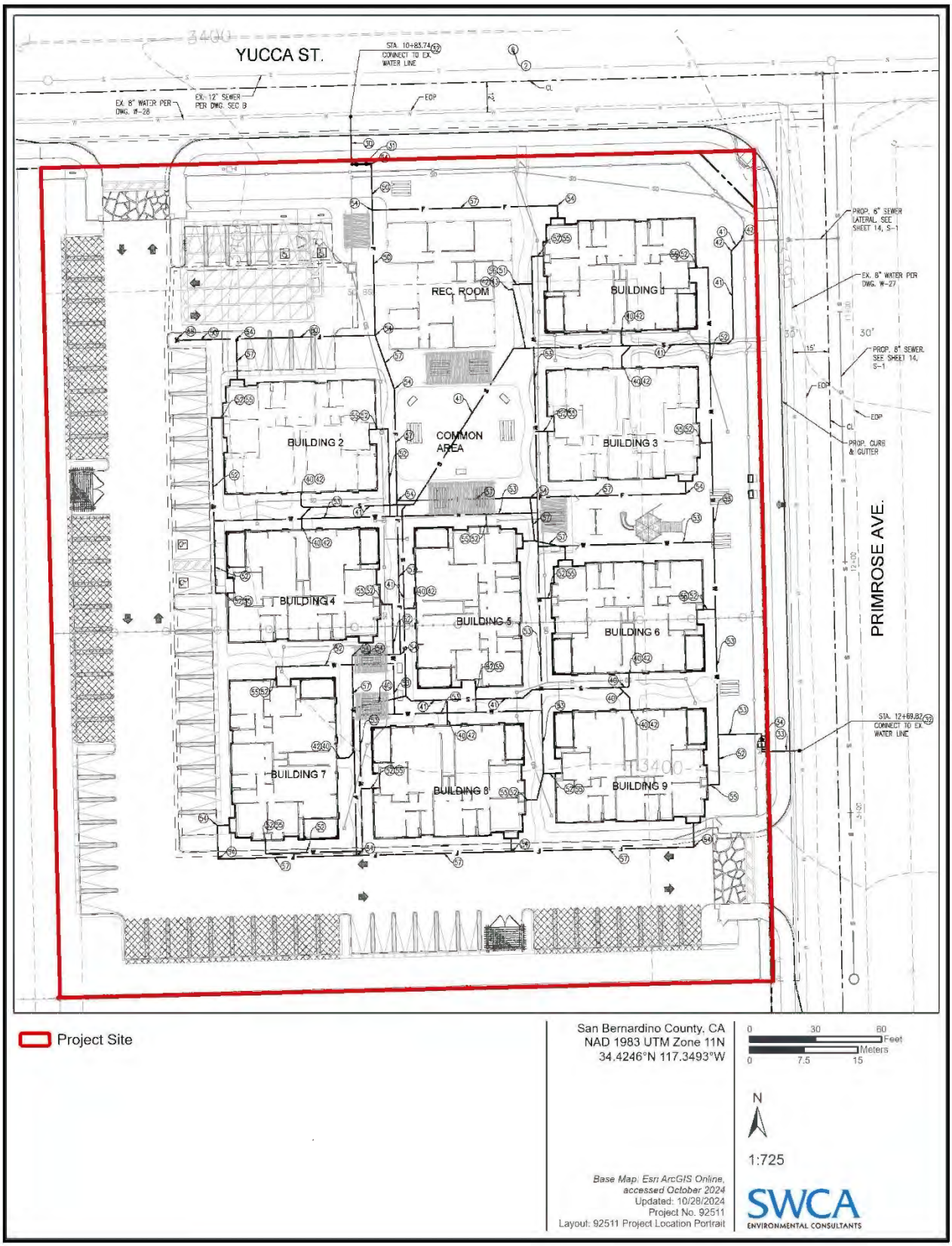


Figure 3. Project site plan.



Figure 4. Residential development Design A elevations.



Figure 5. Residential development Design B elevations.

2 ENVIRONMENTAL CHECKLIST AND ENVIRONMENTAL EVALUATION

Environmental Factors Potentially Affected

The proposed project could have a "Potentially Significant Impact" for environmental factors checked below. Please refer to the attached pages for discussion on mitigation measures or project revisions to either reduce these impacts to less than significant levels or require further study.

☐ 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

Environmental 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 measure 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.

Date: _____ **Signed:** _____

I. Aesthetics

Environmental Issues	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Except as provided in Public Resources Code Section 21099, would the project:				
(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) In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (public views are those that are experienced from publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?	☐	☐	☒	☐
(d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	☐	☐	☒	☐

Setting

STATE SCENIC HIGHWAYS

The California Scenic Highway Program was created by the State Legislature in 1963 with the intention of protecting and enhancing the natural scenic beauty of California highways and adjacent corridors. A highway may be designated scenic depending upon how much of the natural landscape can be seen by travelers, the scenic quality of the landscape, and the extent to which development intrudes upon the traveler's enjoyment of the view. There are no officially designated State Scenic Highways within 10 miles of the project site (California Department of Transportation [Caltrans] 2018).

The nearest proximate highway with scenic qualities includes California State Route 138, also known as the Pearblossom Highway/Rim of the World Scenic Byway, located approximately 7.6 miles south of the project site, which is designated as Eligible for the State Scenic Highway designation. An eligible state highway can become officially designated through a process in which the local governing body applies to Caltrans for scenic highway approval, adopts a Corridor Protection Program, and receives notification that the highway has been officially designated a State Scenic Highway by the Caltrans Director (Caltrans 2023).

LOCAL VISUAL RESOURCE REGULATIONS AND DESIGN GUIDELINES

The City of Hesperia is surrounded by natural scenic open space areas, including the Mojave River to the east, the San Bernardino and San Gabriel Mountain range to the south, and the surrounding Victor Valley, along with neighboring hillsides and the natural desert environment. These scenic resources provide visual relief from the human-made structures in the city and also connect its residents to the natural environment. The City's General Plan includes goals and policies pertaining to the preservation,

maintenance, and enhancement of scenic resources within the city (City of Hesperia 2010a). Applicable goals and policies pertaining to the proposed project include the following:

> **Goal LU-2:** Protect and enhance the quality of life by ensuring residential development is visually pleasing and compatible with existing uses and neighborhoods, as well as the natural desert environment.
>
> - **Implementation Policy LU-2.1.** Strengthen neighborhood identity with new development that exhibits high architectural standards.
> - **Implementation Policy LU-2.2.** Provide opportunities for a wide range of quality residential developments that accommodate the City's economic and demographic population.
> - **Implementation Policy LU-2.3.** Provide opportunities for a variety of residential densities to accommodate rural and suburban lifestyles, and housing types for all economic and demographic segments of the City's population, with convenient access to public facilities, employment and shopping.

According to Development Code §*16.16.140 - Architectural design standards and guidelines*, the architectural style and design of building elements should be consistent within itself and complementary with the neighborhood and with adjacent houses. In order to help accomplish this, the City of Hesperia Development Code includes architectural design standards and guidelines for development within the city (City Development Code §16.16.140). These standards and guidelines include, but are not limited to, the following:

- Guidelines for facades and architectural detailing, height and roof lines, front entries, doors and windows, garage doors, and materials and finishes;
- Guidelines for compatibility with the setbacks, proportions, and sales of houses within a given neighborhood;
- Guidelines for front yard landscaping; and,
- Guidelines for the type, design, and location of exterior lighting.

Guidelines for exterior lighting, as detailed in Development Code §16.16. 145.J - Exterior Lighting, include the following:

1. Exterior lighting includes all lighting fixtures on front facades, security lighting, and landscape lighting. Adequate exterior lighting shall be provided on the front of the house to ensure neighborhood safety and security. Exterior lighting that accentuates architectural and landscape elements of the property is encouraged.

2. Recessed porches must be lit.

3. Light fixtures should complement the design of the house.

4. Photo-sensitive off/on switches are strongly encouraged for energy conservation and safety.

5. Exterior lighting should be positioned so that no direct light extends into neighboring properties or public rights-of-way. Illumination should be screened from adjacent properties. Cut-off luminaries should be used to prevent nighttime light pollution.

Lastly, the Main Street and Freeway Corridor Specific Plan includes development standards for development within the MDR zone. Applicable development standards are summarized in Table 2 below.

Table 2. Applicable MDR Development Standards

Development Standard	Requirement
Residential Density	8 - 15 units/acre
Maximum Building Height	35 feet
Maximum Lot Coverage	60%
Distance Between Buildings • Single-story buildings • Multiple-story buildings	 • 10 feet • No direct line of sight: 10 feet; Direct line of sight: 15 feet
Minimum Street Yard Setback[1]	25 feet
Interior Side Yard Setback	8 feet; 5 feet for single-family residences constructed on substandard lots
Rear Yard Setback	15 feet
Private Usable Open Space	Each dwelling shall have a minimum private usable open space of 100 square feet
Common Usable Open Space	At least 200 square feet of common usable open space shall be provided per dwelling unit
Landscaping	The provisions of Chapter 16.20, Article XII (Landscape Regulations) and Chapter 16.24 (Protected Plants) of the HMC shall apply. In addition, the design standards and guidelines included in Chapter 8 (Residential Design Standards and Guidelines) of this Plan shall apply.
Walls, Fences, and Hedges	Decorative walls and fences are permitted in the setbacks as follows: (1) In no event shall any fence, wall or hedge obscure any clear sight triangle as specified earlier n this chapter. (2) In the street yard setback, a wall, fence or hedge shall not exceed three feet in height above grade when view-obscuring. However, non-view-obscuring estate-type decorative fences may be constructed in the street yard setback up to a maximum height of six feet. A non-view-obscuring estate-type fence is defined as a fence with solid masonry pillars with ornamental metal fencing between. The masonry pillars shall not be more than two feet in width and shall not be placed less than eight feet apart. (3) The wall or fence height shall not exceed six feet in the rear and interior side yard setbacks. (4) Both sides of all perimeter walls should be architecturally treated. Appropriate materials include ornamental metal grillwork, decorative masonry, stone and brick. Chain link is not considered a decorative material and shall not be used.
Parking	In addition to the off-street parking requirements and standards set forth in Chjapter 16.20, Article IV (Parking and Loading Standards) of the HMC, the following apply: (1) No parking is permitted in the street side setbacks. Except for required landscaped areas, ,parking and loading is permitted in the interior side yard and rear yard setbacks. (2) Driveways, drive aisles and interior streets shall not be used for any purpose that would prevent vehicle access to parking spaces, inhibit vehicular circulation, or emergency response. (3) Parking areas should be designed in a way to allow room for turnarounds and prevent backing onto public streets.

[1]For corner lots, all street-facing sides shall meet this measurement.

Source: City of Hesperia 2021

All new development in the MDR zone is subject to the approval of a Site Plan Review pursuant to Chapter 16.12, Article II (Site Plans and Revised Site Plans) of the Hesperia Municipal Code, with the exception of all single-family residential development on previously subdivided parcels.

The Main Street and Freeway Corridor Specific Plan also includes goals and policies pertaining to preserving existing visual resources within the Specific Plan area expressed as Urban Design and Open Space goals and policies, including:

> **Goal UD-1:** Strengthen the identity of the City of Hesperia and the Specific Plan area by building upon the surrounding natural resources and amenities, and create a new image for Main Street and the Freeway Corridor that expresses an attractive, inviting, high quality character and commercial vitality.
>
> - **Policy UD-1.4:** Preserve views of the mountains - San Gabriel Mountains to the southwest and San Bernardino National Forest to the southeast.
>
> **Goal UD-4:** Enhance the pedestrian environment and driving experience within the City.

PROJECT SITE CONDITIONS AND VISUAL SETTING

The project site is located on undeveloped, previously disturbed land (see Figures 6 and 7). No surface water features are present on the site. Existing site disturbance includes vegetation removal, trash piles, and a chain-linked fence transecting the site from east to west. The site has no known historic uses.



Figure 6. Photograph of a southwestern portion of the project site facing northeast (December 23, 2023).



Figure 7. Photograph showing a southern portion of the project site facing northwest (December 23, 2023).

The visual character of the project area is characterized by undeveloped land and low- to medium-density residential development to the east, west, and south of the project site, including one- to two-story residential homes and a multi-family residential development located on the west side of Tamarisk Avenue. The visual character of the project area also includes commercial development to the north of the project site on the north side of Yucca Street, including a self-storage business on the property directly north of the project site, a Motel 6 located northeast of the project site, and an automobile repair shop located northwest of the project site.

Environmental Evaluation

a) Would the project have a substantial adverse effect on a scenic vista?

A scenic vista is generally defined as a high-quality view displaying good aesthetic and compositional values that can be seen from public viewpoints. Vistas are inherently expansive views, usually from an open area or an elevated point. Some scenic vistas are officially or informally designated by public agencies or other organizations. A substantial adverse effect on a scenic vista would occur if the project would significantly degrade the scenic landscape as viewed from public roads or other public areas. A proposed project's potential effect on a scenic vista is largely dependent upon the degree to which it

would complement or contrast with the natural setting, the degree to which it would be noticeable in the existing environment, and whether it detracts from or complements the scenic vista.

The project site is located in an area with relatively flat topography and is primarily visible to the public via Yucca Street and Primrose Avenue and other surrounding roadways such as Tamarisk Avenue. The visual character of the project area is characterized by low- to medium-density residential development to the east, west, and south of the project site, including one- to two-story residential homes and a multi-family residential development located on the west side of Tamarisk Avenue. The visual character of the project area also includes commercial development to the north of the project site on the north side of Yucca Street, including the mini storage business on the property directly north of the project site, a Motel 6 located northeast of the project site, and an automobile repair shop located northwest of the project site. The project site is not located within a designated scenic vista, an area with a Wash Protection Overlay, or an area otherwise designated as having high scenic value. Therefore, the project would not have a substantial adverse effect on a scenic vista, and *no impacts* would occur.

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

The nearest officially designated State Scenic Highway to the project site is Route 38 near Sugarloaf, California, approximately 30 miles southeast of the site (Caltrans 2019).

Other proximate highways with scenic qualities include California State Route 138, also known as the Pearblossom Highway/Rim of the World Scenic Byway, located approximately 7.6 miles south of the project site, which is designated as Eligible for the State Scenic Highway designation. The proposed project would not be visible from any of these highways due to distance and intervening topography and vegetation. In addition, pursuant to Appendix G of the CEQA Guidelines, this impact analysis only pertains to the State of California's "Officially Designated" scenic highways. Therefore, *no impacts* would occur.

c) In non-urbanized areas, would the project 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?

The project site is located in the city of Hesperia, which meets the criteria for being designated as an urbanized area based on the California Public Resources Code (PRC) Section 21071 (U.S. Census Bureau 2023). The project would be required to comply with the City's regulations and policies pertaining to scenic quality, which include the goals, policies, and development standards of the City General Plan and Main Street and Freeway Corridor Specific Plan, and the development standards set forth in the City's Development Code.

Based on a preliminary review of the current project development plans, the project would include residential development that is consistent with the permitted uses within the Medium Density Residential Zone, as described in the Main Street and Freeway Corridor Specific Plan. The proposed project would be fully compliant with the development standards, including, but not limited to, those pertaining to maximum building heights, lot coverage, residential density, distances between buildings, setbacks, landscaping, parking, and provision of open space. Proposed residences would generally have a craftsman architectural style and be constructed with earthtone colors and materials, including, but not limited to,

stucco walls, wood trim, masonry veneer, and concrete or clay tile roofing. Based on the project's compliance with City development standards, architectural style, and use of quality materials, the project would be generally consistent with the City's goals and policies pertaining to developing the Main Street and Freeway Corridor Specific Plan area with high-quality, attractive uses. In addition, the project's proposed improvements to sidewalks along the project site frontages and provision of walking paths connecting common open space areas within the site would be consistent with the City's goals for enhancing the pedestrian experience within and adjacent to the site.

Therefore, based on the project's required compliance with applicable regulations pertaining to scenic quality, impacts would be *less than significant*.

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

The project would include exterior lighting throughout the project site as needed to illuminate walkways and building access entryways. In addition, the proposed residential development may include future components that could result in glare, such as rooftop solar panels. Due to the height at which rooftop solar panels would be mounted and the generally flat topography of the surrounding area, the potential for glare from rooftop solar panels to affect surrounding land uses is low. In addition, there are no proximate sensitive land uses, such as airports, that could be particularly adversely affected by glare.

All proposed exterior lighting would be required to be designed in compliance with the Guidelines for Exterior Lighting detailed in Development Code §16.16. 145.J. These guidelines include requiring exterior lights to include cutoffs to prevent nighttime light pollution and to be designed and located in a manner that does not illuminate neighboring properties or public right-of-way. At the time of application for building permits, the proposed project would be reviewed by City staff for compliance with all applicable standards regarding lighting. Compliance with these standards would ensure that the project would not create a new source of substantial light that would adversely affect nighttime views. Therefore, impacts would be *less than significant*.

Conclusion

The project site is not located within a scenic vista and is not within the viewshed of a designated State Scenic Highway. The project has been designed in compliance with applicable City policies and regulations pertaining to governing scenic quality, and final design plans would be reviewed for consistency with applicable regulations (such as exterior lighting standards) at the time of application for building permits. Therefore, project impacts associated with Aesthetics would be less than significant, and no mitigation is necessary.

Mitigation Measures

No mitigation is necessary.

II. Agriculture and Forestry Resources

Environmental Issues	Potentially Significant Impact	Less Than Significant 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 Dept. 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 project:				
(a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	☐	☐	☐	☒
(b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	☐	☐	☐	☒
(c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?	☐	☐	☐	☒
(d) Result in the loss of forest land or conversion of forest land 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 non-agricultural use or conversion of forest land to non-forest use?	☐	☐	☐	☒

Setting

The California Department of Conservation (CDOC) Farmland Mapping and Monitoring Program (FMMP) produces maps and statistical data used for analyzing impacts on California's agricultural resources. Agricultural land is rated according to soil quality and current land use. For environmental review purposes under CEQA, the FMMP categories of Prime Farmland, Farmland of Statewide Importance, Unique Farmland, Farmland of Local Importance, and Grazing Land are considered "agricultural land." Other non-agricultural designations include, but are not limited to, Urban and Built-up Land, Other Land, and Water. According to the FMMP, the project site is located on land that is designated as Other Land (CDOC 2024). Other Land identifies land not included in any other mapping category. Common examples include low-density rural developments, brush, and vacant and nonagricultural land surrounded on all sides by urban development and greater than 40 acres (CDOC 2025).

According to the U.S. Department of Agriculture Natural Resources Conservation Service (NRCS) Web Soil Survey, the project site is underlain by Hesperia Loamy Fine Sand, with 2% to 5% slopes (NRCS 2025). This soil unit is composed of well-drained soils with negligible to low runoff and moderately rapid permeability (National Cooperative Soil Survey 1997).

The Land Conservation Act of 1965, commonly referred to as the Williamson Act, enables local governments to enter into contracts with private landowners for the purpose of restricting specific parcels of land to agriculture or related open space use. In return, landowners receive property tax assessments

that are much lower than normal because they are based on farming and open space uses as opposed to full market value. The project site is not subject to a Williamson Act contract (CDOC 2023).

According to PRC Section 12220(g), forest land is defined as land that can support 10% native tree cover of any species, including hardwoods, under natural conditions, and that allows for the management of one or more forest resources, including timber, aesthetics, fish and wildlife, biodiversity, water quality, recreation, and other public benefits. Timberland is defined as land, other than land owned by the federal government and land designated by the California Board of Forestry and Fire Protection as experimental forest land, which is available for, and capable of, growing a crop of trees of a commercial species used to produce lumber and other forest products, including Christmas trees. The project site and surrounding area are not considered forestland based on the definitions provided in PRC Section 12220(g).

Environmental Evaluation

a) Would the project convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?

The project site is underlain by land designated as Other Land by the FMMP (CDOC 2024). The project site does not consist of designated Prime Farmland, Unique Farmland, or Farmland of Statewide Importance by the FMMP; therefore, the proposed project would not result in the conversion of Farmland, and *no impacts* would occur.

b) Would the project conflict with existing zoning for agricultural use, or a Williamson Act contract?

The project site is not located within the City's Agricultural land use or zoning designations and is not subject to a Williamson Act contract (CDOC 2023). Therefore, the project would not result in a conflict with existing zoning for agricultural use or a Williamson Act contract, and *no impacts* would occur.

c) Would the project conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?

The project site is located within the northwestern area of the city in the Medium Density Residential (MDR) zone. The project site and surrounding area are not within forest land, timberland, or timberland production land use or zoning designations; therefore, the proposed project would not conflict with the zoning or cause rezoning of designated forest land, timberland, or timberland production, and *no impacts* would occur.

d) Would the project result in the loss of forest land or conversion of forest land to non-forest use?

The project site and surrounding area are not designated or zoned for forest land uses and do not meet the definition of forest land established in PRC Section 12220(g). Therefore, the project would not result in the loss or conversion of forest land, and *no impacts* would occur.

e) Would the project involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?

The project site is not located in close proximity to Farmland or forest land, and the project would not conflict with existing agricultural uses. The project would not increase demand on agricultural water supplies or facilities and would not affect proximate agricultural support facilities. Therefore, the project would not result in changes in the existing environment that could result in the conversion of Farmland to non-agricultural uses or forest land to non-forest uses; therefore, *no impacts* would occur.

Conclusion

The proposed project would not result in the conversion of Farmland or forest land and would not interfere with zoning for agricultural or forest land uses. Therefore, the project would not result in impacts related to agriculture and forestry resources.

Mitigation Measures

Mitigation is not necessary.

III. Air Quality

Environmental Issues	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Where available, the significance criteria established by the applicable air quality management district or air pollution control district may be relied upon to make the following determinations. Would the project:				
(a) Conflict with or obstruct implementation of the applicable air quality plan?	☐	☐	☒	☐
(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?	☐	☐	☒	☐

Setting

The Federal Clean Air Act, as amended, is the primary federal law that governs air quality, while the California Clean Air Act is its companion state law. These laws and related regulations by the U.S. Environmental Protection Agency (USEPA) and the California Air Resources Board (CARB) set standards for the concentration of pollutants in the air. At the federal level, these standards are called National Ambient Air Quality Standards (NAAQS). National and state standards have been established for six criteria pollutants that have been linked to potential health concerns: carbon monoxide (CO), nitrogen dioxide (NO_2), ozone (O_3), particulate matter—which is broken down for regulatory purposes into particles of 10 micrometers or smaller (PM_{10}) and particles of 2.5 micrometers and smaller ($PM_{2.5}$)—lead (Pb), and sulfur dioxide (SO_2). In addition, state standards exist for visibility-reducing particles,

sulfates, hydrogen sulfide (H_2S), and vinyl chloride. The NAAQS and California Ambient Air Quality Standards (CAAQS) are set at levels that protect public health with a margin of safety and are subject to periodic review and revision.

The city of Hesperia is located within the Mojave Desert Air Basin and under the jurisdiction of the Mojave Desert Air Quality Management District (MDAQMD). The MDAQMD has established air quality thresholds of significance for CO, nitrogen oxides (NO_X), volatile organic compounds (VOC), sulfur oxides (SO_X), PM_{10}, $PM_{2.5}$, H_2S, lead (Pb), and carbon dioxide equivalents, as shown in Table 3.

Table 3. MDAQMD Thresholds

Criteria Pollutant	Annual Threshold (tons)	Daily Threshold (pounds)
CO	100	548
NO_X	25	137
VOC	25	137
SO_X	25	137
PM_{10}	15	82
$PM_{2.5}$	12	65
H_2S	10	54
Pb	.6	3

Source: MDAQMD (2023)

OZONE

Ozone is a regional air pollutant. It is generated over a large area and transported and spread by the wind. As the primary constituent of smog, ozone is the most complex, difficult to control, and pervasive of the criteria pollutants. Unlike other pollutants, it is not emitted directly into the air by specific sources but is created by sunlight acting on other air pollutants (the precursors), specifically reactive organic gases (ROG) and NO_X. Sources of precursor gases number in the thousands and include common sources, such as consumer products, gasoline vapors, chemical solvents, and combustion byproducts of various fuels. Originating from gas stations, motor vehicles, large industrial facilities, and small businesses such as bakeries and dry cleaners, the ozone-forming chemical reactions often take place in another location, catalyzed by sunlight and heat. Thus, high ozone concentrations can form over large regions when emissions from motor vehicles and stationary sources are carried hundreds of miles from their origins.

COMBUSTION EMISSIONS

Combustion emissions (ROG and NO_X) are most significant when using large diesel-fueled scrapers, loaders, bulldozers, haul trucks, compressors, generators, and other heavy equipment. Emissions can vary substantially from day to day, depending on the level of activity and the specific type of operation. ROG and NO_X are the critical pollutants caused by construction work because of the high output of these pollutants by the heavy diesel equipment normally used in grading operations.

CARBON MONOXIDE

CO, an odorless, colorless, poisonous gas that is highly reactive, is emitted by mobile and stationary sources as a result of the incomplete combustion of hydrocarbons or other carbon-based fuels. CO is a byproduct of motor vehicle exhaust, which contributes more than 66% of all CO emissions nationwide. In cities, automobile exhaust can cause as much as 95% of all CO emissions. These emissions can result

in high concentrations of CO, particularly in local areas with heavy traffic congestion. Other sources of CO emissions include industrial processes and fuel combustion in sources such as boilers and incinerators. Despite an overall downward trend in concentrations and emissions of CO, some metropolitan areas still experience high levels of CO. High CO concentrations develop primarily during winter when periods of light winds combine with the formation of ground-level temperature inversions (typically from the evening through early morning). These conditions result in reduced dispersion of vehicle emissions. Motor vehicles also exhibit increased CO emission rates at low air temperatures.

SULFATES

Sulfates (SO_4^{-2}) are particulate products that come from the combustion of sulfur-containing fossil fuels. When sulfur monoxide (SO) or SO_2 is exposed to oxygen, it precipitates into sulfates (SO_3 or SO_4). Sulfates are the fully oxidized ionic form of sulfur. Sulfates occur in combination with metal and/or hydrogen ions. In California, emissions of sulfur compounds occur primarily from the combustion of petroleum-derived fuels (e.g., gasoline, diesel fuel) that contain sulfur. This sulfur is oxidized to SO_2 during the combustion process and subsequently converted to sulfate compounds in the atmosphere. The conversion of SO_2 to sulfates takes place comparatively rapidly and completely in urban areas of California because of regional meteorological features.

PARTICULATE MATTER

Particulate matter (PM_{10} and $PM_{2.5}$) pollution consists of very small liquid and solid particles floating in the air. Some particles are large and dark enough to be seen as soot or smoke, and others are so small they can be detected only with an electron microscope. Particulate matter is a mixture of materials that can include smoke, soot, dust, salt, acids, and metals, and can form when gases emitted from motor vehicles and industrial sources undergo chemical reactions in the atmosphere. Particulate matter or airborne dust are small particles that remain suspended in the air for long periods of time. Particulates of concern are PM_{10} and $PM_{2.5}$, which are small enough to be inhaled, pass through the respiratory system, and lodge in the lungs, possibly leading to adverse health effects; $PM_{2.5}$ is a subset of PM_{10}.

Environmental Evaluation

a) Would the project conflict with or obstruct implementation of the applicable air quality plan?

According to the MDAQMD, a project is determined to conform with the district's attainment plans if it complies with all applicable MDAQMD rules and regulations and is consistent with regional growth forecasts (MDAQMD 2020). The project will comply with MDAQMD rules and regulations and, therefore, will be consistent with the district's attainment plans. Further, the project would be consistent with the land uses described in the adopted Main Street and Freeway Corridors Specific Plan Area. The project site is within the MDR zone of the Specific Plan Area, which is intended to provide areas for single-family residences with a variety of lot sizes and housing choices. Therefore, the project would not conflict with or obstruct the implementation of the applicable air quality plan, and impacts would be *less than significant.*

b) Would the project result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?

The Mojave Desert Air Basin is currently designated as non-attainment for ozone, $PM_{2.5,}$ and PM_{10} under state ambient air quality standards (MDAQMD 2020).

Construction Emissions

Project construction would require the use of large diesel-fueled equipment, including scrapers, loaders, bulldozers, haul trucks, compressors, and generators, and would result in the entire 2.51-acre site being disturbed. This would result in the generation of construction dust as well as short-term construction vehicle emissions, including diesel PM, ROG, NO_X, and fugitive dust emissions (PM_{10}). Based on proposed project components, estimated construction phases and length, area of site disturbance, and other factors, estimated construction-related emissions that would result from the project were calculated using the California Emissions Estimator Model (CalEEMod version 2022.1; see Appendix A) and compared to applicable MDAQMD thresholds (Table 4).

Table 4. Construction Emissions

Criteria Pollutant	Project Emissions	MDAQMD Threshold	Exceeds Threshold?
Maximum Daily Emissions (pounds/day)			
CO	31.6	548	No
NO_X	31.7	137	No
VOC	34.5	137	No
SO_X	0.07	137	No
PM_{10}	21.3	82	No
$PM_{2.5}$	11.4	65	No
Total Annual Emissions (tons/year)			
CO	1.40	100	No
NO_X	1.09	25	No
VOC	0.29	25	No
SO_X	<0.01	25	No
PM_{10}	0.20	15	No
$PM_{2.5}$	0.10	12	No

Source: MDAQMD (2023); SWCA (2024) (see Appendix A)

Note: Estimates for PM_{10} and $PM_{2.5}$ include both fugitive dust and exhaust emissions.

Operational Emissions

Implementation of the project would result in an increase in vehicle trips, energy use, and architectural coating off-gassing that would generate criteria pollutant emissions. Long-term operational emissions were also calculated using CalEEMod and are summarized in Appendix A. Daily and annual operational emissions of criteria air pollutants are summarized in Table 5.

Table 5. Operational Emissions

Criteria Pollutant	Project Emissions	MDAQMD Threshold	Exceeds Threshold?
Maximum Daily Emissions (pounds/day)			
CO	13.8	548	No
NO_X	1.73	137	No
VOC	2.75	137	No

Criteria Pollutant	Project Emissions	MDAQMD Threshold	Exceeds Threshold?
SO_X	0.03	137	No
PM_{10}	2.05	82	No
$PM_{2.5}$	0.56	65	No
Total Annual Emissions (tons/year)			
CO	1.80	100	No
NO_X	0.26	25	No
VOC	0.42	25	No
SO_X	<0.01	25	No
PM_{10}	0.34	15	No
$PM_{2.5}$	0.09	12	No

Source: MDAQMD (2023); SWCA (2024) (see Appendix A)
Note: Estimates for PM_{10} and $PM_{2.5}$ include both fugitive dust and exhaust emissions.

As shown in Tables 4 and 5, estimated daily and annual construction and operational emissions would not exceed the MDAQMD significance thresholds. As such, the project would not result in a cumulatively considerable net increase in emissions of any criteria pollutants for which the project region is nonattainment during construction or operation; therefore, potential impacts would be *less than significant.*

c) Would the project expose sensitive receptors to substantial pollutant concentrations?

The project is a residential subdivision and does not produce toxic air emissions such as those generated by industrial manufacturing uses or uses that generate heavy-duty diesel truck emissions. According to the MDAQMD, sensitive receptors are considered land uses or other types of population groups that are more sensitive to air pollution exposure. Sensitive population groups include children, the elderly, the acutely and chronically ill, and those with cardio-respiratory diseases. The closest sensitive land use is the single-family homes located adjacent to the site across Primrose Street to the east. The nearest school, Mirus Secondary School is located approximately 1,200 feet to the northwest of the project site.

The MDAQMD identified the following land uses as potentially significant generators of toxic air contaminants that could cause the exposure of sensitive receptors to substantial pollutant concentrations: industrial projects, distribution centers, major transportation projects (50,000 or more vehicles per day), dry cleaners using perchloroethylene, or gasoline dispensing facilities (MDAQMD 2020). As such, the project is not considered a substantial source of stationary pollution and would not expose sensitive receptors to substantial pollutant concentrations. Construction-related activities would result in temporary, intermittent emissions of diesel particulate matter (DPM) from the exhaust of off-road equipment and on-road, heavy-duty trucks. However, as shown in Table 5, pollutants emitted during project construction would be minimal and would not exceed MDAQMD thresholds. Additionally, the maximum daily emissions of exhaust PM_{10} (used as a surrogate for DPM) would only be 1.37 pounds during peak construction activities (Appendix A). Project construction would not expose sensitive receptors to substantial pollutant concentrations due to the relatively low mass of DPM emissions, the relatively short duration of DPM-emitting activity at the project site, and the highly dispersive properties of DPM. Therefore, the project would not expose sensitive receptors to substantial pollutant concentrations, and impacts would be *less than significant.*

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

Typically, construction activities have the potential to emit odors from diesel equipment, paints, solvents, fugitive dust, and adhesives. Any odors generated by construction activities would be intermittent and temporary, and generally would not extend beyond the construction area. Future residential uses would not include any components or operational activities that would generate substantial long-term adverse odors. Therefore, odors generated by the project would be short-term, intermittent, and primarily undetectable. Additionally, the project site is not located in an area with known naturally occurring asbestos (NOA) (California Geological Survey [CGS] 2011). The project does not require demolition that could inadvertently release asbestos-containing material (ACM), lead paint, or other hazardous materials and contaminants. The project is not anticipated to result in other adverse emissions or odors; therefore, impacts would be *less than significant.*

Conclusion

The proposed project would result in minimal criteria pollutant emissions during construction and operation and would not exceed any MDAQMD thresholds. The project would not expose sensitive receptors to substantial pollutant concentrations and would not be a source of odors or other adverse emissions. Therefore, the project would not result in impacts related to air quality.

Mitigation Measures

Mitigation is not necessary.

IV. Biological Resources

Environmental Issues	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
(a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. 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 Game 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?	☐	☐	☐	☒

	Environmental Issues	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
(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?	☐	☐	☐	☒

Setting

FEDERAL AND STATE ENDANGERED SPECIES ACTS

The Federal Endangered Species Act of 1973 (FESA) provides legislation to protect federally listed plant and animal species. Under state law, the California Department of Fish and Wildlife (CDFW) has the authority to review projects for their potential to impact special-status species and their habitats.
The California Endangered Species Act of 1984 (CESA) provides legal protection for plants listed as rare or endangered, and wildlife species listed as endangered, or threatened, and for species that are candidates for CESA listing. CESA prohibits the "taking" of listed and candidate species except as otherwise provided by state law. Section 86 of the California Fish and Game Code defines "take" as "hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill." CESA applies these take prohibitions to species accepted as candidates for listing. Pursuant to the requirements of the CESA, state lead agencies (as defined under CEQA PRC 21067) are required to consult with CDFW to ensure that any action or project is not likely to jeopardize the continued existence of any endangered or threatened species or result in destruction or adverse modification of essential habitat. Additionally, CDFW encourages informal consultation on any proposed project that may impact a candidate species because they are temporarily assigned the same protections as a state-listed endangered or threatened species.

CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE SPECIES OF SPECIAL CONCERN

CDFW also maintains a list of California Species of Special Concern (SSC). SSC status is assigned to species that have limited distribution, declining populations, diminishing habitat, or unusual scientific, recreational, or educational value.

CALIFORNIA NATIVE PLANT SOCIETY

In addition, the California Native Plant Society (CNPS) maintains a list of plant species ranging from presumed extinct to limited distribution, based on the following:

- California Rare Plant Ranks (CRPR)
    - 1A: Plants presumed extirpated in California and either rare or extinct elsewhere
    - 1B: Plants rare, threatened, or endangered in California and elsewhere
    - 2A: Plants presumed extirpated in California, but common elsewhere
    - 2B: Plants rare, threatened, or endangered in California, but more common elsewhere
- California Rare Plant Threat Ranks
    - 0.1: Seriously threatened in California

- 0.2: Moderately threatened in California
- 0.3: Not very threatened in California

CALIFORNIA DESERT NATIVE PLANT ACT

The California Desert Native Plant Act (CDNPA) prohibits the harvest, transport, sale, or possession of certain desert native plants without a permit in San Bernardino, Inyo, Kern, Imperial, Los Angeles, San Diego, Riverside, and Mono Counties. A plant removal permit would be required under the City of Hesperia's Code of Ordinances Chapter 16.24, Protected Plants articles I-II. Valid permits or wood receipts to allow for the harvest of plants protected under the CDNPA may be obtained through either the sheriff or the County commissioner.

WESTERN JOSHUA TREE CONSERVATION ACT

The Western Joshua Tree Conservation Act (WJTCA) prohibits the take, possession, purchase, or sale of any Western Joshua tree in California unless authorized by CDFW. Pursuant to the WJTCA, CDFW may issue permits for the incidental take of Western Joshua trees as long as certain criteria are met. In lieu of conducting mitigation activities, permittees may pay specified fees deposited into the Western Joshua Tree Conservation Fund for the purposes of acquiring, conserving, and managing Western Joshua tree conservation lands and completing other activities to conserve the Western Joshua tree. CDFW may enter into an agreement with any county or city to delegate limited authority to permit the taking of a Western Joshua tree associated with developing single-family residences, multifamily residences, accessory structures, and public works projects.

MIGRATORY BIRD TREATY ACT

The Migratory Bird Treaty Act (MBTA) protects all migratory birds, including their eggs, nests, and feathers. The MBTA was originally drafted to put an end to the commercial trade in bird feathers, popular in the latter part of the 1800s. The MBTA is enforced by the U.S. Fish and Wildlife Service (USFWS), and potential impacts to species protected under the MBTA are evaluated by the USFWS in consultation with other federal agencies and are required to be evaluated under CEQA.

CALIFORNIA FISH AND GAME CODE

California Fish and Game Code Sections 3511, 4700, 5050, and 5515 identify a Fully Protected Species (FPS) classification to identify and provide additional protection to those wildlife species that were rare or faced possible extinction. FPS may not be taken or possessed at any time and no licenses or permits may be issued for their take except for collecting these species for scientific research, for relocation of the bird species for the protection of livestock, or if they are a covered species whose conservation and management is provided for in a Natural Community Conservation Plan.

WILDLIFE MOVEMENT CORRIDORS

Wildlife corridors and habitat connectivity are important for the movement of wildlife between different populations and habitats. Wildlife movement corridors are defined as areas that connect suitable wildlife habitat areas in a region otherwise fragmented by rugged terrain, changes in vegetation, or human disturbance. Natural features such as canyon drainages, ridgelines, or areas with vegetation cover provide corridors for wildlife travel. Wildlife movement corridors are important because they provide access to mates, food, and water; allow the dispersal of individuals away from high population density areas; and facilitate the exchange of genetic traits between populations.

BIOLOGICAL RESOURCES ANALYSIS AND METHODOLOGY

The following setting analysis and environmental evaluation in this section are based, in part, on the *Biological Resources Report for the Hesperia-Primrose Land Development Project* (Appendix B) prepared by SWCA Environmental Consultants (January 2024), prepared with the intent of evaluating the potential for the project to have a significant effect on biological resources. Preparation of this report included a query of the California Natural Diversity Database (CNDDB) RareFind 5, the CNPS Rare Plant Inventory, the U.S. Fish and Wildlife Service (USFWS) Information for Planning and Consultation (IPaC) species list, and other sources. The data search centered on six USGS 7.5-minute quadrangles surrounding the project area: Hesperia (site), Apple Valley South, Apple Valley North, Victorville, Adelanto, Baldy Mesa. Southern quadrangles Cajon, Silverwood Lake, and Lake Arrowhead were excluded from the desktop review due to mountainous habitat.

The potential for the occurrence of special-status species within the project area and the immediate vicinity was assessed following the database searches. During the pre-field desktop assessment, each species was assigned to one of the categories listed below:

- **High Potential**: The species has been documented in the vicinity (within 5 miles of the project area based on recent [within 20 years] CNDDB or other records or based on professional expertise specific to the area or species), and there is suitable habitat within the project area that makes the probability of the species occurring there high. Alternatively, there is high-quality suitable habitat within the project area and within the known range of the species. Bird species in this category were differentiated based on their occurrence within the project area as breeding, foraging only, and/or transients.

- **Moderate Potential**: Species is known to occur within the project area (based on non-historic [within 40 years] CNDDB or other records or based on professional expertise specific to the area or species), and there is moderate quality habitat at the project area that makes the probability of the species occurring there moderate. Alternatively, there is moderate-quality habitat in the part of the project area that falls within the known range of the species.

- **Low Potential**: The project area is within the species' currently known range, but vegetation communities, soils, etc., do not resemble those known to be used by the species; or conditions appear suitable, but the project area is beyond the species' currently known range; or the species was recorded more than 40 years ago within the project area.

- **Absent**: There is no suitable habitat for the species within the project area, or the area is located well outside the known range of the species.

Following the completion of the desktop review, in December 2023, a biological resources reconnaissance survey was conducted of the entire project area and a 15-meter (approximately 50-foot) buffer beyond the project boundary (herein referred to as the study area). The purpose of the survey was to document existing plants, wildlife, vegetation communities, potentially regulated aquatic resources, and identify potential habitat or any indicators of special-status species such as old nests, scat, and burrows (SWCA 2024).

Based on the results of the literature and database review, 26 special-status wildlife species and 20 special-status plant species were found to have occurrences within the literature and records query area. Western Joshua tree, desert kit fox (*Vulpes macrotis arsipus*), and American badger (*Taxidea taxus*) are not tracked in CNDDB or IPac, however, are widespread in the Mojave Desert and were included in the desktop review for the project. Three special-status wildlife species were determined to have moderate potential based on the quality of habitat on-site, and the survey area falling within the known range for

these species. These species include desert kit fox, American badger, and burrowing owl (*Athene cunicularia*). The remaining 23 special-status wildlife species were determined absent from the survey area due to a lack of suitable habitat (SWCA 2024).

Of the 20 special-status plant species determined to occur in the project region, 19 were determined absent from the survey area due to a lack of suitable habitat, or the survey area is not within the known range for the species. Western Joshua tree was determined to have moderate potential within the survey area due to the quality of habitat and falling within the known range of this species. (SWCA 2024).

EXISTING CONDITIONS

The project site is within a previously disturbed area within a residential area and is best described in A Manual of California Vegetation as a disturbed habitat. The dominant plant species in the survey area are common mustard (Brassica juncea), redstem filaree (Erodium cicutarium), bristly fiddleneck (Amsinckia tessellate), and tumbleweed (Amaranthus albus). Trash was observed on-site.

An unknown small mammal burrow and an unknown canine dig were present in the southeast and south-central portions of the survey area, respectively, and were not able to be identified further due to a lack of scat and tracks. Based on the size, depth, and lack of diagnostic features in the burrows, it was concluded that they do not belong to special-status species such as burrowing owl, desert kit fox, or American badger. Common raven (Corvus corax) was observed on-site. No protected plants or other special-status species or their sign were observed during the surveys. No other wildlife was observed in the survey area (SWCA 2024).



Figure 8. Aerial of the project site and survey area.

Environmental Evaluation

a) Would the project have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?

Special-Status Plants

The CNDDB and CNPS queries resulted in 20 special-status plant species observations located within the vicinity of the project area. Nineteen special-status plant species were determined absent from the survey area due to a lack of suitable habitat, or the survey area was not within the known range for the species. Western Joshua tree was determined to have moderate potential within the survey area due to the quality of habitat and due to the project survey area being located within the known range of this species.

The habitat within the survey area is generally suitable for Western Joshua tree, which prefers open habitat with sparse vegetation and sandy or gravelly soils. However, no Western Joshua trees were identified within the project site or the surrounding survey area during the survey. No Western Joshua trees, protected plants, or other special-status species were observed within the survey area at the time surveys were conducted. Therefore, proposed work activities are not anticipated to impact Western Joshua tree or any other special-status plant species (SWCA 2024).

Special-Status Wildlife

Three special-status wildlife species were determined to have moderate potential to occur within the survey area based on the quality of habitat observed within the survey area and the survey area falling within the known range for these species. These species include the desert kit fox, American badger, and burrowing owl (*Athene cunicularia*). The remaining 23 special-status wildlife species were determined absent/no potential to occur within the survey area due to a lack of suitable habitat.

Desert Kit Fox

The project is within the known range of the desert kit fox, and marginally suitable habitat is present within the survey area. However, the project site is relatively small (2.28 acres), has been subject to disturbances, and is generally surrounded by developed land uses, which limits the likelihood of occurrence. Desert kit fox is typically found in grasslands and sparse desert scrublands and require friable soils for digging burrows. No suitable kit fox dens were observed during the field survey.

Any project activities including grading or excavation work could result in impacts to this highly mobile species, if present within the project site. Mitigation Measures BIO-1, BIO-2, and BIO-3 have been identified to avoid impacts to desert kit fox by requiring a biological monitor be retained to monitor initial ground disturbing activities, conduct a worker environmental awareness training, conduct a preconstruction survey to identify if kit fox are present, inspection of dens (if present) to determine if they are occupied, and establishment of no-disturbance buffers as needed. Upon implementation of Mitigation Measures BIO-1 through BIO-3, impacts to desert kit fox would be *less than significant with mitigation*.

American Badger

The project is within the known range of the American badger and marginally suitable habitat is present within the survey area. However, the project site is relatively small (2.28 acres), has been subject to disturbances, and is generally surrounded by developed land uses which limits the likelihood of

occurrence. The American badger is typically found in grasslands and requires friable soils for digging burrows. However, American badger is a generalist occupying a wide range of habitats and could potentially utilize the site for denning. No suitable American badger dens were observed during the field survey.

Any project activities including grading or excavation work could result in impacts to this highly mobile species, if present within the project site. Mitigation Measures BIO-1, BIO-2, and BIO-4 have been identified to avoid impacts to American badgers by requiring a biological monitor be retained to monitor initial ground disturbing activities, conduct a worker environmental awareness training, conduct a preconstruction survey to identify if badgers are present, inspection of dens (if present) to determine if they are occupied, and establishment of no-disturbance buffers as needed. Upon implementation of Mitigation Measures BIO-1, BIO-2, and BIO-4, impacts to American badger would be *less than significant with mitigation*.

Burrowing Owl

Burrowing owl is classified as a candidate species for listing under the CESA. The burrowing owl was determined to have a moderate potential to occur within the survey area due to the presence of several suitable small mammal burrows within the survey area.

Project construction activities such as grading and other excavation work could potentially result in direct impacts to burrowing owl individuals, habitat loss, and/or mortality, if present. Mitigation Measure BIO-4 has been identified to avoid impacts to this species during the winter season by conducting a preconstruction survey of the site and a buffer surrounding the site consistent with CDFW recommended methods described in the *Staff Report on Burrowing Owl Mitigation* (CDFW 2012). If burrowing owl or evidence of burrowing owl are detected during this survey, Mitigation Measure BIO-4 dictates additional surveys be conducted to determine owl occupancy and establishment of no-disturbance buffers in accordance with CDFW ITP requirements. In addition, if burrowing owl are present in project work areas during the breeding season, Mitigation Measure BIO-4 requires avoidance and protection of any breeding pair if present. Upon implementation of Mitigation Measure BIO-4, impacts to burrowing owl would be *less than significant with mitigation*.

Critical Habitat

There is no designated critical habitat for federally listed species within or immediately adjacent to the project (SWCA 2024). The nearest critical habitat, which is designated for southwestern willow flycatcher (*Empidonax traillii extimus*), is located approximately 6.2 miles northeast of the survey area (SWCA 2024).

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

Sensitive vegetation communities are defined by CDFW as those "... communities that are of limited distribution statewide or within a county or region and are often vulnerable to environmental effects of projects" (CDFW 2018). Vegetation communities with a State Rank of 1, 2, or 3 are considered sensitive by CDFW. No riparian habitat or other sensitive natural community has been identified within the project disturbance area or directly adjacent to the project disturbance area. Therefore, *no impacts* would occur related to riparian habitat or other sensitive natural communities.

c) Would the project 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?

No state or federally protected wetlands or aquatic resources were identified during the desktop analysis and verified during the biological resource survey (SWCA 2024). Therefore, the proposed project would have *no impacts* to state or federally protected wetlands within the survey area.

d) Would the project interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?

The project site is surrounded by Primrose Avenue, Yucca Street, and scattered residential and commercial development. No riparian corridors, critical habitats, wildlife corridors, or wildlife nursery sites were identified during the desktop analysis or during the biological resource survey conducted on-site (SWCA 2024). Therefore, the proposed project would have *no impacts* to these wildlife resources within the survey area.

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

The City of Hesperia Conservation Element includes a Goal and policies associated with the protection of the natural environment and habitat of the City's biological resources. Policies relevant to the project include requiring proper assessments in areas known as possible habitat for endangered and sensitive species before authorizing development (Implementation Policy CN-4.4) and requiring appropriate actions to preserve the habitat and protect the identified endangered or sensitive species (Implementation Policy CN-4.5). Mitigation Measures BIO-1 through BIO-5 have been identified to avoid and mitigate project impacts to sensitive biological resources, including special-status species. Based on the project's required compliance with the City's Protected Plant Policy and implementation of identified mitigation measures, project impacts that conflict with any local policies or ordinances related to the protection of biological resources would be *less than significant with mitigation.*

f) Would the project conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?

No habitat conservation plan, natural community conservation plan, or equivalent is currently established in the project area. Therefore, the proposed project would have *no impacts* on compliance with local, regional or state adopted conservation plans.

Conclusion

Project grading, vegetation removal, and construction activities have the potential to adversely affect biological resources that may occur within the project site, including burrowing owl, desert kit fox, American badger. Mitigation Measures BIO-1 through BIO-8 have been identified to avoid and/or reduce potential impacts to sensitive biological resources. Upon implementation of the identified mitigation measures, impacts to biological resources would be less than significant with mitigation.

Mitigation Measures

BIO-1 **Project Biological Monitor.** At the time of application for grading permits, the project applicant shall retain a qualified biological monitor(s) and include the monitor's credentials with grading permit application materials submitted to the City. Biological monitoring shall be performed during initial laydown and ground disturbance of any new portion of the project area, including vegetation removal and grading, during project construction activities. The biological monitor(s) shall have sufficient education and field experience to understand resident wildlife species biology and have experience conducting botanical and wildlife surveys in desert ecosystems. To avoid and minimize effects on biological resources, the biological monitor(s) shall be responsible for the following:

a. Be present during initial laydown and ground disturbance of any new portion of the project area, including vegetation removal and grading, that take place in suitable habitat for burrowing owl, desert kit fox, American badger or other protected species to prevent or minimize harm or injury to these species.

b. Activities of the biological monitor(s) include, but are not limited to, ensuring compliance with all avoidance and minimization measures; halting construction activity in the area if a special-status species is found; and verifying that disturbance areas are marked with staking or flagging and that construction activities stay within the staked/flagged limits.

c. If burrowing owl, desert kit fox, American badger, or other protected species are found within a work area, the biological monitor(s) shall halt work in the vicinity; if impacts to a special-status species cannot be avoided, the biological monitor(s) will immediately notify the City and the relevant agency(ies), who shall determine measures to be taken to ensure that impacts to special status species are avoided.

d. Inspect the study area for any special-status wildlife species and active bird nests.

e. In the event of the discovery of a non-listed, special-status ground-dwelling animal, recover and relocate the animal to adjacent suitable habitat at least 200 feet from the limits of construction activities.

f. At the end of each work day, inspect all potential wildlife pitfalls (e.g., trenches, bores, other excavations) for wildlife and remove wildlife as necessary. If the potential pitfalls will not be immediately backfilled following inspection, the biological monitor(s) will ensure that the construction crew slopes the ends of the excavation (3:1 slope), provides wildlife escape ramps, or completely and securely covers the excavation to prevent wildlife entry. Handling of special-status species will be conducted only if the biologist and the project have all required authorizations from the California Department of Fish and Wildlife (CDFW) and/or the U.S. Fish and Wildlife Service (USFWS).

g. Inspect the site to ensure trash and food-related waste are placed in closed-lid containers and that workers do not feed wildlife. Ensure that pets are not allowed on-site prior to or during construction to minimize disturbances to wildlife. Also inspect the work area each day to ensure that no microtrash (e.g., bolts, screws, etc.) is left behind.

BIO-2 **Worker Environmental Awareness Program.** Prior to the onset of construction activities, the project biological monitor shall provide Worker Environmental Awareness

Program (WEAP) training. Any employee responsible for the construction, operation, and/or maintenance of the project shall attend the WEAP. The WEAP will be developed by a qualified biologist, and all training materials shall be submitted to the City with a copy of the names of all staff who attended prior to the onset of construction activities. The WEAP shall include the following content:

a. The program will include information on the life history of sensitive biological resources that may occur within the project area, including western Joshua tree and other listed or special-status species that could be present on-site.

b. The program will discuss each species' legal protection status, the definitions of take under the California Endangered Species Act (CESA) and the federal Endangered Species Act (FESA), measures the project operator is implementing to protect the species, reporting requirements, specific measures that each worker will employ to avoid take of wildlife species, and penalties for violation of the CESA and the FESA.

c. An acknowledgement form signed by each worker indicating that environmental training has been completed will be kept on record.

d. A sticker will be placed on worker hard hats upon the worker's successful environmental training completion. Construction workers will not be permitted to operate vehicles or equipment within the construction areas unless they have attended the training and are wearing hard hats with the required sticker.

e. The WEAP will identify a point of contact if a listed or special-status species is observed on the project site.

BIO-3 **Desert Kit Fox Avoidance and Protection Measures.** To avoid direct impacts to desert kit fox, preconstruction surveys shall be conducted for this species no more than 30 days prior to the start of construction activities. Preconstruction surveys shall include 100% visual coverage of the survey area and shall be conducted as described below:

1. Qualified biologists knowledgeable about desert kit fox ecology and sign identification (e.g., dens) shall perform preconstruction surveys for potential desert kit fox dens in the project disturbance area, including a 50-foot buffer beyond the limits of disturbance, utility corridors, and access roads. All *potential* dens (i.e., any burrow/den with a diameter of 4 inches or greater) that are identified shall be mapped and assessed for activity using one or both of the following methods:

   a. Tracking medium shall be applied to the ground surrounding the den and remain in place for 3 days to detect tracks of kit foxes entering and exiting the den.

   b. An infrared motion-sensing camera shall be installed such that the den entrance may be photographed when triggered by an animal. The camera shall remain in place for 3 nights to determine the status of the den.

2. Potential dens that have shown no sign of kit fox activity (e.g., photos, tracks, or scat) after 3 consecutive nights can be determined as *inactive*. Inactive dens that would be directly impacted by construction activities shall be carefully excavated under the direction of a qualified biologist and backfilled to prevent reuse by foxes. Excavation shall take place immediately following the 3rd night of monitoring. If an inactive den

is left intact and unmonitored for one or more nights, it can become occupied, and the 3 nights of monitoring must be repeated before the den is disturbed.

3. If a non-natal den is observed to be *active* in an area where it will be directly impacted by construction, a 50-foot no-disturbance buffer shall be installed around the den, and it shall be monitored with an infrared motion-sensing camera to determine when the fox has left the den. After 3 nights of confirmed vacancy, the den shall be carefully excavated and backfilled to prevent reuse by foxes. If the non-natal den will not be directly affected by construction, the 50-foot buffer shall remain until the residents leave and will continue to be monitored for re-occupation.

4. If a non-natal den remains active for more than 5 days and will be directly impacted by construction, the residents can be passively harassed to encourage departure. This is accomplished by partially blocking the den with soil or vegetation to discourage the foxes from continued use, ensuring foxes can still exit the den and will not be entombed. After 3 nights of verification that the den is unoccupied, it shall then be carefully excavated under the direction of a qualified biologist and backfilled.

5. If an active natal den is detected on the site, the California Department of Fish and Wildlife (CDFW) shall be contacted within 24 hours to determine the appropriate course of action to minimize the potential for harm or mortality. A 500-foot no-disturbance buffer shall be maintained around active natal dens.

6. Desert Kit foxes may use human-made materials, like appropriately sized pipes and crevices in stored materials. These dens are considered *atypical* dens. Atypical dens shall be treated like natural dens—a 50-foot buffer shall surround active atypical dens. Stored materials used as atypical dens shall not be moved until 3 nights of confirmed absence have been established.

BIO-4 **American Badger Avoidance and Protection Measures.** To avoid direct impacts to American badger, preconstruction surveys shall be conducted for this species no more than 30 days prior to the start of construction activities. Surveys shall be conducted as described below:

a. Biological monitors shall perform preconstruction surveys for badger dens in the project disturbance area, including a 20-foot buffer beyond the disturbed area, utility corridors, and access roads. If dens are detected, each den shall be classified as inactive, potentially active, or definitely active.

b. Inactive dens that would be directly impacted by construction activities shall be excavated by hand and backfilled to prevent reuse by badgers.

c. Potentially and definitely active dens that would be directly impacted by construction activities shall be monitored by the biological monitor for 3 consecutive nights using a tracking medium (such as diatomaceous earth or fire clay) and/or infrared camera stations at the entrance.

d. If no tracks are observed in the tracking medium or no photos of the target species are captured after 3 consecutive nights, the den shall be excavated and backfilled by hand.

e. If tracks are observed, the den shall be progressively blocked with natural materials (rocks, dirt, sticks, and vegetation piled in front of the entrance) for the next 3 to 5 nights to discourage the badger from continued use. After verification

that the den is unoccupied, it shall then be excavated and backfilled by hand to ensure that no badgers are trapped in the den.

f. If an active natal den is detected on the site, the California Department of Fish and Wildlife (CDFW) shall be contacted within 24 hours to determine the appropriate course of action to minimize the potential for harm or mortality. The course of action would depend on the age of the cubs, location of the den on the site (e.g., is the den in a central area or in a perimeter location), status of the perimeter site fence (completed or not), and the pending construction activities proposed near the den. A 500-foot no-disturbance buffer shall be maintained around active natal dens.

BIO-5 **Burrowing Owl Avoidance, Minimization, and Mitigation.** No more than 14 days prior to the start of ground disturbance, a preconstruction survey for burrowing owls in conformance with the California Department of Fish and Wildlife (CDFW) *Staff Report on Burrowing Owl Mitigation* (CDFW 2012) shall be completed within suitable habitat at every work area and within a 150-m buffer zone of each work area. Work areas shall be resurveyed following periods of inactivity of 2 weeks or more. The project applicant/owner shall submit the results of the preconstruction survey to the City of Hesperia and CDFW.

If occupied burrows are identified on-site or within the 150-meter buffer, the following measures shall be implemented:

a. No disturbance shall occur within 160 feet (50 m) of occupied burrows during the non-breeding season (September 1–January 31) or within 650 feet (200 m) during the breeding season (February 1–August 31);

b. Occupied burrows shall not be disturbed during the nesting season (February 1–August 31);

c. Unless otherwise authorized by CDFW, a 650-foot buffer within which no activity shall be maintained between project activities and nesting burrowing owls during the nesting season. This protected area shall remain in effect until August 31 or at CDFW's discretion and, based on monitoring evidence, until the young owls are foraging independently.

If it is determined that impacts to burrowing owl cannot be avoided and may result in incidental take of the species, the biological monitor(s) shall immediately halt work. The project applicant shall be required to complete consultation with CDFW to apply for an ITP pursuant to CESA. Additional mitigation measures may be required as part of the ITP process.

BIO-6 **Dust Control.** Control of dust will be implemented during construction activities. The primary mechanism for dust control will be the use of water trucks with a spray bar and hose(s). Proactive controls will be instituted to reduce the amount of dust generated during site activities, including enforcement of low speed limits (below 15 mph) for vehicular traffic, decontamination of trucks leaving the remediation work areas, and a 5-foot height limit for temporarily stockpiled material.

BIO-7 **Refuse Removal.** Upon completion of each project component, all remaining materials and equipment will be removed from the site.

BIO-8 **Invasive Plants.** To prevent the spread of invasive plants that have the potential to outcompete native plant species, all vehicles and any ground- or vegetation-disturbing equipment and tools will be cleaned free of mud, soil, and plant material before entering the project site for the first time, and any time after driving off pavement outside the project site. Cleaning can be through car washes, compressed air, pressure washes, brushes, or similar equipment.

V. Cultural Resources

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

Setting

As defined by CEQA, a historical resource includes:

1. A resource listed in or determined to be eligible for listing in the California Register of Historical Resources (CRHR).

2. Any object, building, structure, site, area, place, record, or manuscript which a lead agency determines to be historically significant or significant. The architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural records of California may be considered to be a historical resource, provided the lead agency's determination is supported by substantial evidence.

Pursuant to CEQA, a resource included in a local register of historic resources or identified as significant in a historical resource survey shall be presumed to be historically or culturally significant. Public agencies must treat any such resource as significant unless the preponderance of evidence demonstrates that it is not historically or culturally significant.

The City Conservation Element includes a Goal and policies related to identification and protection of historical and cultural resources, as summarized below:

> **Goal CN-5.** The City shall establish policies and procedures in compliance with state and Federal laws and regulations to identify and properly protect found historical, cultural and paleontological artifacts and resources.
>
> - **Policy CN-5.1.** Encourage the preservation of historical, paleontological and cultural resources.

- **Policy CN-5.2.** In those areas where surveys and records indicate historical, cultural or paleontological resources may be found, undertaken appropriate surveys and record searches to determine the presence of such resources, if any.
- **Policy CN-5.3.** Inventory and evaluate all historical, paleontological and cultural resources discovered according to CEQA regulations and the California Office of Historic Preservation.
- **Policy CN-5.4.** Coordinate with the Archeological Information Center at the San Bernardino County Museum in reviewing potential records and in preserving such artifacts as may be found.
- **Policy CN-5.5.** Through its CEQA and other environmental procedures, notify appropriate Native American representatives of possible development and shall comply with all State and Federal requirements concerning the monitoring and preservation of Native American artifacts and places.

The *Technical Background Report in Support of the Cultural Resource Element: City of Hesperia General Plan Update* includes a Cultural Resource Sensitivity Key Map**,** which consists of cultural resource sensitivity maps that define areas in the city of Hesperia that might hold more cultural resource sites than other areas. "Sensitivity" has been divided into low, medium, and high designations, and the gradation was developed based on recorded site information. Areas deemed "Low" generally exhibit 0 to 1 recorded site per 160 acres exhibited by modern development. "Medium" areas of sensitivity generally exhibit 2 to 9 sites per 160 acres and are focused along important historic road alignments. Areas of "High" sensitivity generally exhibit 10 or more sites per 160 acres and are located near permanent water sources. In addition to utilizing the number of previously known cultural resources of 160 acres, sensitivity zones were also developed utilizing knowledge about landforms and water resources. Based on the Cultural Resource Sensitivity Key Map, the project site is located in an area with low cultural resource sensitivity (Michael Brandman Associates 2010).

Environmental Evaluation

a) Would the project cause a substantial adverse change in the significance of a historical resource pursuant to § 15064.5?

A records search was conducted by SWCA Environmental Consultants for the project site that included a review of the South Central Coastal Information Center (SCCIC) of the California Historical Resources Information System (CHRIS). The records search was conducted in person, and the results concluded that there were 10 historic sites recorded within a 0.5-mile buffer of the project site, but none of these sites were located immediately adjacent to the site. SWCA also conducted an intensive pedestrian survey of the project area to identify cultural resources and historical built environment resources that may be present within the project area. The pedestrian survey concluded that no historic or cultural resources were present.

The project site does not contain, nor is it located near, any historic resources identified in the National Register of Historic Places, California Register of Historic Resources, or a local historic resources register. The project site does not contain structures of historic age (50 years or older) that could be potentially significant as a historical resource. Therefore, the project would not result in an adverse change in the significance of a historical resource, and *no impacts* would occur.

b) Would the project cause a substantial adverse change in the significance of an archaeological resource pursuant to § 15064.5?

Project construction activities would result in approximately 2.73 acres of total site disturbance, including 2,220 cubic yards of cut and 300 cubic yards of fill material. Project grading and trenching activities would result in a maximum depth of excavation of 108 inches.

Based on the Cultural Resource Sensitivity Key Map, the project site is located in an area with low cultural resource sensitivity (Michael Brandman Associates 2010). A records search was conducted by SWCA Environmental Consultants for the project site that included a review of the SCCIC of the CHRIS. The records search was conducted in person, and the results concluded that there were 10 historic sites recorded within a 0.5-mile buffer of the project site; however, none of these sites were located within or immediately adjacent to the site. The records search also revealed 25 previously recorded cultural resources within a 1-mile radius of the project area, however, none of these resources overlap with the project area.

In addition, SWCA Environmental Consultants conducted a records search of the Sacred Lands File via the Native American Heritage Commission. The results of this search indicate whether a tribal entity has any known sacred sites in the general vicinity; however, the search does not identify any specific locations of these sites. The Sacred Lands File (SLF) search returned with positive results. While the SLF search indicates that two tribes have identified one or more sacred sites in the general vicinity of the project, there are no known sacred sites or other cultural resources known to occur within the project site.

Based on the low archaeological sensitivity of the site and the negative pedestrian survey results, the project's potential to disturb archaeological resources is low. However, the project would still have the potential to result in impacts to previously unidentified subsurface resources within the site during construction and grading activities, if present. Mitigation Measures CR-1 through CR-3 have been identified to require the project applicant to retain a qualified archaeologist, conduct worker environmental awareness training, and implement appropriate protocol in the event an archaeological resource is discovered during project construction activities. With the implementation of these mitigation measures, impacts to archaeological resources would be *less than significant with mitigation*.

c) Would the project disturb any human remains, including those interred outside of dedicated cemeteries?

Based on existing conditions and negative results of the SCCIC records search, buried human remains are not expected to be present in the site area. However, the discovery of unknown human remains is possible during ground-disturbing activities associated with the proposed project. In the event of an accidental discovery or recognition of any human remains, California Health and Safety Code Section 7050.5 requires that no further disturbances shall occur until the County Coroner has made the necessary findings as to origin and disposition pursuant to PRC Section 5097.98. Mitigation Measure CR-4 has been identified to require these measures to be included on all relevant sheets of the project grading and construction plans. Potential impacts related to the disturbance of human remains would be less than significant with the incorporation of Mitigation Measure CR-4. Therefore, impacts related to disturbance of human remains would be *less than significant with mitigation.*

Conclusion

The project site does not contain any known historical or archaeological resources. The project would have the potential to result in adverse impacts to previously unidentified subsurface archaeological resources and/or human remains. Mitigation measures have been identified to reduce these impacts to a

less than significant level. Therefore, the project's impacts associated with cultural resources would be less than significant with mitigation.

Mitigation Measures

CR-1 **Retain a Qualified Archaeologist.** At the time of application for grading or construction permits, whichever occurs first, the project applicant shall submit evidence of retaining a qualified archaeologist for the development and implementation of the worker environmental awareness training to be conducted for all construction personnel as described under Mitigation Measure CR-2, below.

CR-2 **Worker Environmental Awareness Training.** Prior to initial ground-disturbing activities, the project archaeologist shall conduct a brief construction worker awareness training for all construction personnel. This training shall include, but not be limited to, the following information:

a. Review the types of archaeological artifacts that may be uncovered;

b. Provide examples of common archaeological artifacts to examine;

c. Review what makes an archaeological resource significant to archaeologists and local Native Americans;

d. Review reporting requirements, relevant environmental laws, and penalties;

e. Describe procedures that would be followed in the event of a new discovery;

f. Best management practices;

g. Responsibilities of project personnel; and

h. Who to contact in the event of an inadvertent discovery, inclusive of local Native American tribes.

The name and qualifications of the archaeologist who provided the training and a list of all construction personnel who completed the training shall be provided to the City prior to initiation of construction activities.

CR-3 **Inadvertent Discovery of Archaeological Resources Protocol.** If cultural resources are encountered during subsurface earthwork activities, all ground-disturbing activities within a 60-foot radius of the find shall cease and the City shall be notified immediately, and a qualified archaeologist meeting Secretary of Interior standards shall be hired to assess the find. Work shall not continue until the project archaeologist assesses the find and determines the need for further study. If the find includes Native American-affiliated materials, a local Native American tribal representative will be contacted to work in conjunction with the project archaeologist to determine the need for further study. Additionally, the Yuhaaviatam of San Manuel Nation Cultural Resources Department (YSMN) shall be contacted, as detailed within TCR-1, regarding any pre-contact finds and be provided information after the archaeologist makes his/her initial assessment of the nature of the find, so as to provide Tribal input with regards to significance and treatment. A standard inadvertent discovery clause shall be included in every grading and construction contract to inform contractors of this requirement. Any previously unidentified resources found during construction shall be recorded on appropriate California Department of Parks and Recreation forms and evaluated for significance in terms of the California Environmental Quality Act (CEQA) criteria by a qualified archaeologist.

If the resource is determined significant under CEQA, the qualified archaeologist shall prepare and implement a research design and archaeological data recovery plan, in conjunction with locally affiliated Native American representative(s) as necessary, that will capture those categories of data for which the site is significant. The archaeologist shall also perform appropriate technical analysis, prepare a comprehensive report, and file it with the South Central Coastal Information Center and the City of Hesperia Planning Department, and provide for the permanent curation of the recovered materials.

In addition, if significant pre-contact cultural resources, as defined by CEQA, are discovered and avoidance cannot be ensured, the archaeologist shall develop a Monitoring and Treatment Plan, the drafts of which shall be provided to YSMN for review and comment, as detailed within TCR-1. The archaeologist shall monitor the remainder of the project and implement the Plan accordingly.

CR-4 **Discovery of Human Remains Protocol.** In the event that human remains are exposed during earth-disturbing activities associated with the project, an immediate halt work order shall be issued, and the City of Hesperia shall be notified. California Health and Safety Code Section 7050.5 requires that no further disturbance of the site or any nearby area reasonably suspected to overlie adjacent human remains shall occur until the County Coroner has made the necessary findings as to origin and disposition pursuant to California Public Resources Code Section 5097.98. If the remains are determined to be of Native American descent, the coroner shall notify the Native American Heritage Commission within 24 hours. These requirements shall be printed on all relevant sheets of building and grading plans.

VI. Energy

Environmental Issues	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
(a) Result in a 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?	☐	☐	☒	☐

Setting

The project site is located in the Southern California Edison (SCE) service area. The 2022 SCE electric power mix consists of 33.2% renewable energy sources (SCE 2022).

STATE BUILDING CODE REQUIREMENTS

The California Building Code (CBC) contains standards that regulate the method of use, properties, performance, or types of materials used in the construction, alteration, improvement, repair, or rehabilitation of a building or other improvements to real property. The CBC includes mandatory green building standards for residential and nonresidential structures, the most recent version of which is referred to as the *2023 Building Energy Efficiency Standards.* These standards focus on four key areas:

smart residential photovoltaic systems, updated thermal envelope standards (preventing heat transfer from the interior to the exterior and vice versa), residential and nonresidential ventilation requirements, and nonresidential lighting requirements. While the CBC has strict energy and green building standards, U-occupancy structures (such as greenhouses used for cultivation activities) are typically not regulated by these standards.

VEHICLE FUEL ECONOMY STANDARDS

In October 2012, the USEPA and National Highway Traffic Safety Administration (NHTSA), on behalf of the U.S. Department of Transportation, issued final rules to further reduce greenhouse gas (GHG) emissions and improve corporate average fuel economy (I) standards for light-duty vehicles for model years 2017 and beyond. The NHTSA's I standards have been enacted under the Energy Policy and Conservation Act since 1978. This national program requires automobile manufacturers to build a single light-duty national fleet that meets all requirements under both federal programs and the standards of California and other states. This program would increase fuel economy to the equivalent of 54.5 miles per gallon (mpg), limiting vehicle emissions to 163 grams of carbon dioxide (CO_2) per mile for the fleet of cars and light-duty trucks by the model year 2025.

As part of California's overall approach to reducing pollution from all vehicles, CARB has established standards for clean gasoline and diesel fuels and fuel economies of new vehicles. CARB has also put in place innovative programs to drive the development of low-carbon, renewable, and alternative fuels, such as their Low Carbon Fuel Standard (LCFS) Program pursuant to California Assembly Bill (AB) 32 and the Governor's Executive Order S-01-07.

In January 2012, the CARB approved the Advanced Clean Cars Program, which combines the control of GHG emissions and criteria air pollutants, as well as requirements for greater numbers of zero-emission vehicles, into a single package of standards for vehicle model years 2017 through 2025. The new rules strengthen the GHG standard for 2017 models and beyond. This will be achieved through existing technologies, the use of stronger and lighter materials, and more efficient drivetrains and engines. The program's zero-emission vehicle regulation requires battery, fuel cell, and/or plug-in hybrid electric vehicles to account for up to 15% of California's new vehicle sales by 2025. The program also includes a clean fuels outlet regulation designed to support the commercialization of zero-emission hydrogen fuel cell vehicles planned by vehicle manufacturers by 2015 by requiring increased numbers of hydrogen fueling stations throughout the state. The number of stations will grow as vehicle manufacturers sell more fuel cell vehicles. By 2025, when the rules will be fully implemented, the statewide fleet of new cars and light trucks will emit 34% fewer global warming gases and 75% fewer smog-forming emissions than the statewide fleet in 2016 (CARB 2022).

All self-propelled off-road diesel vehicles 25 horsepower (hp) or greater used in California and most two-engine vehicles (except on-road two-engine sweepers) are subject to the CARB's Regulation for In-Use Off-Road Diesel Fueled Fleets (Off-Road regulation). This includes vehicles that are rented or leased (rental or leased fleets). The overall purpose of the Off-Road regulation is to reduce emissions of NO_X and particulate matter from off-road diesel vehicles operating within California through the implementation of standards, including, but not limited to, limits on idling, reporting, and labeling of off-road vehicles, limitations on the use of old engines, and performance requirements.

Environmental Evaluation

a) Would the project result in a potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?

Construction activities for the proposed project would require the use of energy in the form of electricity, diesel fuel, and gasoline for workers and construction vehicles and equipment. The project would require limited construction activities and would be subject to state and local diesel idling restrictions and other equipment standards. Therefore, construction is not anticipated to result in wasteful, inefficient, or unnecessary consumption of energy resources.

Implementation of the proposed project would result in nine two-story apartment buildings that would be subject to green building and CBC standards. The project would provide electricity from SCE, which sources 33.2% of its electricity from renewable resources (SCE 2022). Based on required compliance with green building standards and the use of electricity from renewable resources, the operation of the project is not anticipated to result in environmental impacts due to wasteful or otherwise inefficient use of energy during project construction or operation; therefore, impacts would be *less than significant.*

b) Would the project conflict with or obstruct a state or local plan for renewable energy or energy efficiency?

The project would comply with CBC 2023 *Building Energy Efficiency Standards* and the 2023 *Green Building Code* and is not anticipated to result in wasteful use of energy. Therefore, the project would comply with applicable energy efficiency plans, and impacts would be *less than significant*.

Conclusion

The project would not result in a wasteful, inefficient, or unnecessary consumption of energy resources during short-term construction or long-term operation and would not conflict with state or local renewable energy or energy efficiency plans. Therefore, potential impacts related to energy would be less than significant, and mitigation measures are not necessary.

Mitigation Measures

Mitigation is not necessary.

VII. Geology and Soils

Environmental Issues	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
(a) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:				

	Environmental Issues	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
	(i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	☐	☐	☐	☒
	(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 as a result 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 direct or indirect risks to life or property?	☐	☐	☒	☐
(e)	Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?	☐	☐	☐	☒
(f)	Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	☐	☒	☐

Setting

Ground shaking refers to the motion that occurs in response to regional and local earthquakes. Seismic ground shaking is influenced by the proximity of the site to an earthquake fault, the intensity of the seismic event, and the underlying soil composition. Ground shaking can endanger life and safety due to damage or collapse of structures or lifeline facilities. Liquefaction is the sudden loss of soil strength due to a rapid increase in soil pore water pressure resulting from ground shaking during an earthquake. Landslides and slope instability can occur as a result of wet weather, weak soils, improper grading, improper drainage, steep slopes, adverse geologic structures, earthquakes, or a combination of these factors.

The project site is located in seismically active Southern California, a region that has experienced numerous earthquakes in the past. The Alquist-Priolo Special Studies Zones Act specifies certain areas as Earthquake Fault Zones if surrounding faults are deemed sufficiently active or well-defined after a review of seismic records and geological studies. The project site is not located within any Alquist-Priolo Special Studies Zones (CDOC 2015).

According to the *City of Hesperia Hazard Mitigation Plan,* the nearest faults of major significance in San Bernardino County are the Southern San Andreas, the San Jacinto, the Elsinore, and the Garlock Faults (City of Hesperia 2017). According to the CDOC Fault Activity Map of California, the nearest potentially

active fault to the project site is the Ord Mountains fault zone, located approximately 8 miles southeast of the project site (CDOC 2015).

Highly erodible soils are those that are easily carried by water and, to a lesser extent, by wind. Surface erosion is more commonly visible, but subsurface erosion can lead to damage to pipes, roads, foundations, and other structural elements. Expansive soils are largely comprised of clays, which expand in volume when water is absorbed and shrink as the soil dries. Expansion is measured by shrink-swell potential, which is the volume change in soil with an increase in moisture. If the shrink-swell potential is rated moderate to high, then damage to buildings, roads, structural foundations, and pipes can occur. In the northern portion of the county, there are some areas of expansive clay soil that require special construction standards for foundations and infrastructure. Expansive clay problems can be surmounted by appropriate engineering design and construction techniques.

According to the NRCS Web Soil Survey, the project site is underlain by Hesperia Loamy Fine Sand, with 2% to 5% slopes. This well-drained soil has a high runoff class and a depth-to-restrictive feature of more than 80 inches. The typical soil profile consists of loamy fine sand and sandy loam. The Hesperia Loamy Fine Sand soils formed in alluvium are derived primarily from granite sources.

Environmental Evaluation

a) Would the project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:

a-i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.

There are no active faults located within or adjacent to the project site (CDOC 2015). Because the project site is not underlain by an Alquist-Priolo or other active fault zone, rupture of a known Alquist-Priolo fault would not occur within the project site; therefore, *no impacts* would occur.

a-ii) Strong seismic ground shaking?

The nearest potentially active fault to the project site is the Ord Mountains fault zone approximately 8 miles southeast of the project site (CDOC 2015). The project includes the development of nine two-story apartment buildings. New occupiable buildings would be required to be constructed in accordance with the most recent CBC to address seismic risk. Based on required compliance with the CBC, the project would not result in the risk of loss, injury, or death as a result of seismic-induced hazards, including seismic ground shaking; therefore, impacts would be *less than significant*.

a-iii) Seismic-related ground failure, including liquefaction?

According to the California Geological Survey's Earthquake Hazards Zone Application, the project site is not located in a liquefaction zone (CDOC 2021). The project includes the development of nine two-story apartment buildings. New occupiable buildings would be required to be constructed in accordance with the most recent CBC to address seismic risk. Based on required compliance with the CBC, the project would not result in the risk of loss, injury, or death as a result of seismic-induced hazards, including liquefaction; therefore, impacts would be *less than significant.*

a-iv) Landslides?

According to the California Geological Survey's Earthquake Hazards Zone Application, the project site is not located landslide zone (CDOC 2021). The project includes the development of nine two-story apartment buildings. New occupiable buildings would be required to be constructed in accordance with the most recent CBC to address seismic risk. Based on required compliance with the CBC, the project would not result in the risk of loss, injury, or death as a result of seismic-induced hazards, including landslides; therefore, impacts would be *less than significant.*

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

Construction activities would result in approximately 2.51 acres of ground disturbance. Proposed ground-disturbing activities would have the potential to increase erosion or loss of topsoil at the project site. The project would disturb more than 1 acre of soil and would be required to comply with State Water Resources Control Board (SWRCB) general construction permit requirements to prepare and implement a Stormwater Pollution Prevention Plan (SWPPP) with BMPs to address erosion and other pollutant control at the project site. Because the project would disturb more than 1 acre of soil, the project would also be required to comply with Hesperia Municipal Code Section 8.30.210, which requires the preparation and implementation of an Erosion Control Plan (ESCP). Following construction activities, the project site would be covered with hardscapes to reduce the potential for erosion or loss of topsoil to occur at the project site. Based on required compliance with SWRCB and City requirements, implementation of the proposed project would not result in substantial soil erosion or the loss of topsoil; therefore, impacts would be *less than significant*.

c) Would the project be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?

According to the California Geological Survey's Earthquake Hazards Zone Application, the project site is not located in a liquefaction or landslide zone (CDOC 2021). The project site is also not located in an area with known land subsidence (USGS 2024). New occupiable buildings would be required to be constructed in accordance with the most recent CBC to address geologic risk. Based on required compliance with the CBC, the project would not result in the risk associated with ground failure; therefore, impacts would be *less than significant.*

d) Would the project be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?

Expansive soils are typically comprised of clay. Soils at the project site consist of sand, gravely sand, and stratified sand to loamy fine sand; therefore, there is a low risk of soil expansion at the project site (NRCS 2024). New occupiable buildings would be required to be constructed in accordance with the most recent CBC to address geologic risk. Based on required compliance with the CBC, the project would not result in the risk associated with development on expansive soils; therefore, impacts would be *less than significant*.

e) Would the project have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?

The project does not include the installation of septic tanks or alternative wastewater disposal systems; therefore, *no impacts* would occur.

f) Would the project directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

Paleontological resources are the preserved fossilized remains of plants and animals. According to the Cultural and Paleontological Resources Study for the City's General Plan, the site is located in an area with a low sensitivity for paleontological resources (City of Hesperia 2010b). The project site is underlain by sediments from the Holocene eras (USGS 1965), which has a low paleontological sensitivity because it is typically too young to yield scientifically significant paleontological resources. Based on the low paleontological sensitivity of the underlying geologic unit, the proposed project would not adversely affect paleontological resources; therefore, impacts would be *less than significant*.

Conclusion

Based on required compliance with the CBC, the project would not result in the risk associated with seismic-related or ground-failure events. Based on required compliance with SWRCB and City requirements, implementation of the proposed project would not result in substantial soil erosion or the loss of topsoil. The project does not include the installation of septic tanks or alternative wastewater disposal systems. The project would not adversely affect paleontological resources. Therefore, impacts related to geology and soils would be less than significant, and mitigation is not necessary.

Mitigation Measures

Mitigation is not necessary.

VIII. Greenhouse Gas Emissions

Environmental Issues	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
(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?	☐	☐	☒	☐

Setting

Greenhouse Gases (GHGs) are any gases that absorb infrared radiation in the atmosphere. The primary GHGs that are emitted into the atmosphere as a result of human activities are carbon dioxide (CO_2), methane (CH_4), NOx, and fluorinated gases. These are most commonly emitted through the burning of

fossil fuels (oil, natural gas, and coal), agricultural practices, decay of organic waste in landfills, and a variety of other chemical reactions and industrial processes (e.g., the manufacturing of cement). CO_2 is the most abundant GHG and is estimated to represent approximately 80% to 90% of the principal GHGs that are currently affecting the Earth's climate. According to the CARB, transportation (vehicle exhaust) and electricity generation are the main sources of GHGs in the state.

In October 2008, CARB published the Climate Change Proposed Scoping Plan, which is the state's plan to achieve GHG reductions in California required by AB 32. The Scoping Plan included CARB-recommended GHG reductions for each emissions sector of the state's GHG inventory. The largest proposed GHG reduction recommendations were associated with improving emissions standards for light-duty vehicles, implementing the LCFS program, implementation of energy efficiency measures in buildings and appliances, the widespread development of combined heat and power systems, and developing a renewable portfolio standard for electricity production.

Senate Bill (SB) 32 and Executive Order (EO) S-3-05 extended the state's GHG reduction goals and require the CARB to regulate sources of GHGs to meet the following goals:

- Reduce GHG emissions to 1990 levels by 2020;
- Reduce GHG emissions to 40% below 1990 levels by 2030; and
- Reduce GHG emissions to 80% below 1990 levels by 2050.

The initial Scoping Plan was first approved by CARB on December 11, 2008, and is updated every 5 years. The first update of the Scoping Plan was approved by the CARB on May 22, 2014, which looked past 2020 to set mid-term goals (2030–2035) toward reaching the 2050 goals. The CARB released the 2017 Climate Change Scoping Plan in November 2017. The 2017 Climate Change Scoping Plan incorporates strategies for achieving the 2030 GHG-reduction target established in SB 32 and EO S-3-05. CARB's most recent update is the 2022 Scoping Plan for Achieving Carbon Neutrality, dated November 16, 2022, which identifies a plan to reach carbon neutrality by 2045 or earlier.

The City of Hesperia Climate Action Plan (CAP) was adopted in June of 2010. The CAP outlines a course of action for the City to reduce per capita GHG emissions 29% below 2010 levels by 2020 and to adapt to the effects of climate change. The CAP includes actions such as reducing emissions from new development, increasing bicycle use through a safe and well-connected system of bicycle paths and end of trip facilities, reducing energy use from the transport and treatment of water, and improving recycling and source reduction programs to make continued progress in minimizing waste.

Environmental Evaluation

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

MDAQMD has an adopted bright-light annual GHG threshold of 100,000 metric tons of carbon dioxide equivalent (CO_2e) per year for all new development projects. According to the CalEEMod model prepared for the project (Appendix A), the project is expected to emit a total of 268 metric tons of CO_2e during construction, and 506 metric tons of CO_2e annually during operation. After amortizing the construction emissions over 30 years, the project would emit a total of approximately 515 metric tons of CO_2e per year, which is well below the MDAQMD threshold of 100,000 tons of CO_2e per year. Therefore, impacts would be *less than significant.*

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

According to the MDAQMD, a project is determined to conform with the district's attainment plans if it complies with all applicable MDAQMD rules and regulations and is consistent with regional growth forecasts (MDAQMD 2020). The project will comply with MDAQMD rules and regulations and therefore will be consistent with the district's attainment plans. Further, the project would be consistent with the land uses described in the Main Street and Freeway Corridors Specific Plan Area. The project site is within the DR zone of the Specific Plan Area, which is intended to provide areas for single-family residences with a variety of lot sizes and housing choices.

According to the City's CAP, projects that are consistent with the CAP would result in less than significant GHG impacts. This is because the emissions from such projects are generally accounted for in the CAP and would be consistent with the CAP reduction target. To be consistent with this CAP, projects must implement applicable CAP implementation strategies. The project would be consistent with the following implementation actions:

> **CAP-5.2** Upgrade pedestrian infrastructure when roadways are reconstructed or expanded and right-of-way is available.
>
> **CAP-5.5** The City should work with developers to ensure that safe and attractive sidewalks, walkways, bike lanes, and crosswalks that facilitate use are provided in accordance with City standards. The City should work with developers to construct links to adjacent communities, using open space easements and utility easements when appropriate.
>
> **CAP-11.2** Require new commercial, multi-family residential, and industrial development to incorporate storage of recyclables in site designs.
>
> **CAP-14.1** New projects should assess the significance of wildfires, water supply, flooding, and any other potential impacts from climate change in California Environmental Quality Act documents.
>
> **CAP-14.2** Developers should provide an assessment of a project's potential impacts on the local and subregional storm drainage systems, so that the City can determine appropriate mitigation to ensure that system capacity and peak flow restrictions are not exceeded.
>
> **CAP-14.4** Low-impact development techniques should be used in new development to infiltrate and store runoff.

As such, the project would be consistent with the City's CAP and MDAQMD guidelines. Therefore, the project would not conflict with the implementation of applicable plans, policies or regulations adopted for the purpose of GHG emissions reductions, and impacts would be *less than significant.*

Conclusion

The project would be consistent with the City's 2010 CAP and would not exceed the MDAQMD annual GHG threshold. As such, the project would not result in a conflict with an applicable plan or policy adopted for reducing GHG emissions. Therefore, the project would not result in impacts related to GHG emissions.

Mitigation Measures

Mitigation is not necessary.

IX. Hazards and Hazardous Materials

Environmental Issues	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
(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 two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?	☐	☐	☐	☒
(f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☐	☒	☐
(g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?	☐	☐	☒	☐

Setting

The Hazardous Waste and Substances Site (Cortese) List is a planning tool used by the state, local agencies, and developers to comply with CEQA requirements related to the disclosure of information about the location of hazardous materials release sites. California Government Code Section 65962.5 requires the California Environmental Protection Agency (CalEPA) to develop an updated Cortese List at least annually. Various state and local government agencies are required to track and document hazardous material release information for the Cortese List. The California Department of Toxic Substance Control (DTSC) EnviroStor database tracks DTSC cleanup, permitting, enforcement, and investigation efforts at hazardous waste facilities and sites with known contamination, such as federal superfund, state response, voluntary cleanup, school cleanup, school investigation, and military evaluation sites (DTSC 2024). The SWRCB GeoTracker database contains records for sites that impact, or have the potential to impact, water in California, such as Leaking Underground Storage Tank (LUST), Department of Defense, and

Cleanup Program Sites (SWRCB 2024). The remaining data regarding facilities or sites identified as meeting the "Cortese List" requirements can be located on the CalEPA website.

Based on a query of the DTSC EnviroStor and SWRCB GeoTracker databases, there are no hazardous materials sites located within or adjacent to the project site (DTSC 2024; SWRCB 2024). There is a closed LUST cleanup site located approximately 1.5 miles west of the project site and two other closed LUST cleanup sites located approximately 1.6 miles east of the project site (SWRCB 2024).

Environmental Evaluation

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

The proposed project would require limited quantities of hazardous substances, including gasoline, diesel fuel, hydraulic fluid, solvents, oils, paints, etc. during construction, which has the potential to result in an accidental spill or release. Construction contractors would be required to comply with applicable federal and state environmental and workplace safety laws for the handling, transport, and storage of hazardous materials, including 22 California Code of Regulations (CCR) Division 4.5.

Operation of the project would be limited to residential uses and would not require the routine transport, use, or disposal of hazardous materials that could lead to significant upset in the event of an accidental spill. Household waste would be stored and hauled in accordance with City regulations; therefore, impacts would be *less than significant*.

b) Would the project create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?

As previously discussed, temporary construction activities would include the use of construction equipment, vehicles, and commonly used hazardous substances, including, but not limited to, paint, solvents, oils, fuel, and gasoline. Commonly used hazardous substances within the project site would be transported, stored, and used according to regulatory requirements and existing procedures for the handling of hazardous materials. Operation of the project would not require the handling or use of hazardous materials or volatile substances that would result in a significant risk of upset or accidental release conditions.

The project site is not located in an area with the potential for NOA to occur and would not require the demolition of existing on-site structures that could release ACM or lead-based paint if present within the building materials (CGS 2011). The project does not require soil disturbance within or adjacent to existing major roadways that could release aerially deposited lead (ADL) if present within the soil. Therefore, based on compliance with existing regulations during proposed construction activities, potential impacts would be *less than significant.*

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

The nearest school is the Mirus Secondary School located approximately 0.20 miles northwest of the project site. As previously discussed, temporary construction activities would include the use of

construction equipment, vehicles, and commonly used hazardous substances, including, but not limited to, paint, solvents, oils, fuel, and gasoline. Commonly used hazardous substances within the project site would be transported, stored, and used according to regulatory requirements and existing procedures for the handling of hazardous materials. Operation of the project would not require the handling or use of hazardous materials or volatile substances that would result in a significant risk of upset or accidental release conditions. However, current local, State, and federal laws relating to the use, storage, and disposal of these materials make it unlikely that the project would have a significant effect on the Mirus Secondary School. Therefore, impacts would be *less than significant.*

d) Would the project be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?

Based on a query of the DTSC EnviroStor and SWRCB GeoTracker databases, there are no hazardous materials sites located within or adjacent to the project site (DTSC 2024; SWRCB 2024). The project site is not located on or adjacent to a site that is on a list of hazardous materials sites pursuant to California Government Code Section 65962.5; therefore, the project would not create a significant hazard to the public or the environment related to disturbance of a known hazardous materials site, and *no impacts* would occur.

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

The nearest airport is the Hesperia Municipal Airport, located approximately 3.5 miles southeast of the project site. The project site is not located within an airport land use plan or within 2 miles of an airport; therefore, the proposed project would not result in a safety hazard or excessive noise for people residing or working in the project area, and *no impacts* would occur.

f) Would the project impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?

According to the California Department of Forestry and Fire Protection (CAL FIRE) fire hazard severity maps, the project site and surrounding area is located in a local responsibility area (LRA) (CAL FIRE 2024b). The project includes the development of nine two-story apartment buildings. Each residence would also be constructed with a minimum 25-foot-long driveway. The project includes construction of a paved access road and driveway approach terminating in a cul-de-sac. This roadway would be constructed per City standards and California Fire Code (CFC) requirements to ensure adequate emergency access. The new single-family residences would generate a negligible increase in vehicle trips to and from the site; therefore, implementation of the project would not increase vehicle congestion in a manner that could interfere with emergency response or evacuation efforts within the project area, and impacts related to emergency response and evacuation would be *less than significant*.

g) Would the project expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?

The project site and surrounding area is located in a LRA (CAL FIRE 2024b). The project includes the development of nine two-story apartment buildings on an undeveloped project site with relatively flat topography. New occupiable buildings would be required to be constructed in accordance with the CFC to

address fire risk. Based on required compliance with the CFC, the project would not exacerbate the risk of wildfire; therefore, impacts would be *less than significant*.

Conclusion

The project is located within 0.25 mile of a school; however, based on required compliance with the CCR, the project would not result in significant hazards related to the routine transport, use, or disposal of hazardous materials. The project site is also not within 2 miles of an airport, or within or adjacent to a previously recorded hazardous materials site. The project would not impair implementation of an adopted emergency response plan or emergency evacuation plan and would not expose people or structures to a significant risk involving wildfires. Therefore, impacts related to hazards and hazardous materials would be less than significant, and mitigation is not necessary.

Mitigation Measures

Mitigation is not necessary.

X. Hydrology and Water Quality

Environmental Issues	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
(a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground 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?	☐	☐	☒	☐
(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; or	☐	☐	☒	☐
(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?	☐	☐	☒	☐

Setting

STATE AND REGIONAL WATER QUALITY REGULATORY SETTING

The project site is located within the jurisdiction of the California Regional Water Quality Control Board, Lahontan Region. The Water Quality Control Plan for the Lahontan Region (Basin Plan) sets forth water quality standards for the surface and groundwaters of the region, which include both designated beneficial uses of water and the narrative and numerical objectives that must be maintained or attained to protect those uses. There are 24 categories of beneficial uses, including, but not limited to, municipal water supply, water contact recreation, non-water contact recreation, and cold freshwater habitat. Water quality objectives are then established to protect the beneficial uses of those water resources. The Regional Board implements the Basin Plan by issuing and enforcing waste discharge requirements to individuals, communities, or businesses whose discharges can affect water quality (California Regional Water Quality Control Board Lahontan Region 2021).

The U.S. Army Corps of Engineers (USACE), through Section 404 of the Clean Water Act (CWA), regulates the discharge of dredged or fill material into waters of the U.S., including wetlands. Waters of the U.S. are typically identified by the presence of an ordinary high-water mark (OHWM) and connectivity to traditional navigable waters or other jurisdictional features. The SWRCB and nine Regional Water Quality Control Boards regulate discharges of fill and dredged material in California, under Section 401 of the CWA and the State Porter-Cologne Water Quality Control Act, through the State Water Quality Certification Program. State Water Quality Certification is necessary for all projects that require a USACE permit, fall under other federal jurisdiction, or have the potential to impact waters of the State. Waters of the State are defined by the Porter-Cologne Act as any surface water or groundwater, including saline waters, within the boundaries of the state.

LOCAL STORMWATER MANAGEMENT

The City of Hesperia is subject to requirements of the National Pollutant Discharge Elimination System (NPDES) Municipal Separate Storm Sewer System Permit, General Permit No.CAS000004 (MS4 Permit) issued by the SWRCB. The MS4 Permit requires the City to implement a Construction Site Stormwater Runoff Control Program. Construction projects generally 1 acre or larger which are subject to the Statewide NPDES General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities (Order No. 2009-0009-DWQ: NPDES No. CAS000002) (Construction General Permit) must prepare and submit a SWPPP to the City for review. The City will review the SWPPP for compliance with City construction requirements and for completeness and accuracy of information required by the Construction General Permit. An acceptable SWPPP is required before any Grading or Building Permit will be issued by the City (City of Hesperia 2016).

LOCAL GROUNDWATER SUPPLY

The City operates and maintains a water supply system through the Hesperia Water District (HWD), which serves as a subsidiary special district of the City. Water use in the region has historically been sourced from surface supplies derived from the Mojave River and groundwater supplies from the Upper Mojave River Groundwater Basin (Mojave Basin). The rapid expansion of groundwater pumping from the Mojave Basin and increased use from the surface water supplies to serve the region's growing population led to the Mojave Basin Area Adjudication (Adjudication). The Adjudication is the primary governing structure that allocates water supplies among the regional water purveyors and individual water users to meet regional water needs. The Mojave Water Agency is the Watermaster for the Adjudication (Tully & Young, Inc. and HWD 2021).

The HWD's current primary water supply includes groundwater pumped from the Alto subarea, which is one of the five subareas created by the Adjudication. The Adjudication assigned Base Annual Production (BAP) rights to each producer using 10 acre-feet or more, from which parties of the Adjudication are assigned a free production allowance (FPA), which is a percentage of the BAP set annually by the Court for reach subarea. The BAP is reduced over time until the FPA is within 5% of the Production Safe Yield (PSY) of the Basin, as defined by the Adjudication. In general, this water supply is available to Hesperia regardless of the current year's hydrology in the context of the regional water management actions. Hesperia also holds stored water in the Mojave Basin to manage unforeseen outages. These supplies can be balanced in any given year to meet demands in the Hesperia service area, and importantly, the HWD is looking to augment its water supply portfolio through a recycled water project that anticipates supply availability in 2025 (Tully & Young, Inc. and HWD 2021).

Based on the 2020 City of Hesperia Urban Water Management Plan, the HWD has reliable water supplies to meet its current and projected water demands in normal, single dry years, and five consecutive dry year conditions through 2045. The managed groundwater reliability is based on HWD's share of the projected Mojave Basin's annual FPA and the numerous current and planned projects in the Mojave Basin designed to increase the reliability of the groundwater supply. In addition, Hesperia's continued acquisition of replacement, make-up, and transferred water supplies supplement HWD's asset portfolio. As such, Hesperia is not projected to face water shortages during normal or dry years through 2045. Because the HWD extracts only as much groundwater as is necessary to meet customer demands, it is anticipated that supplies and demands are congruent across all the scenarios examined (Tully & Young, Inc. and HWD 2021).

Hesperia also has updated its Water Shortage Contingency Plan (WSCP) under the requirements in Water Code Section 10632 of the Urban Water Management Planning Act to address any potential water shortage conditions. This updated WSCP allows the HWD to reduce the water demands of its customers in shortage or catastrophic outage conditions. The measures contemplated in the updated WSCP include typical dry condition water management actions embedded into six water shortage categories (up to 10%, 11%–20%, 21%–30%, 30%–40%, 40%–50%, and over 50%). Accordingly, in the event of a catastrophic water outage in the service area, water demands would be limited to use for health and safety purposes only. The updated WSCP, combined with Hesperia's active water management of its supply portfolio, provides an additional buffer against unpredictable water conditions and results in an overall reliable, resilient water supply for the City through 2045 (Tully & Young, Inc. and HWD 2021).

CITY GENERAL PLAN

In addition to the City's Urban Water Management Program and WSCP, the City General Plan also includes several policies relevant to the proposed project pertaining to attaining and maintaining the City's water quality, groundwater recharge, and hydrology goals, as detailed below:

> **Goal CN-1:** Conserve water resources within the Upper Mojave River Groundwater Basin.
>
> - **Policy CN-1.1.** Promote the use of desert vegetation with low water usage and drought tolerant materials in landscaped areas.
> - **Policy CN-1.3.** Promote reduced use of high nitrate fertilizers, herbicides, pesticides, and other chemicals in landscaping areas that can contaminate the quality of the groundwater.
> - **Policy CN-1.4.** Limit the disturbance of natural water hydrology by minimizing creation of impervious area and continue utilizing detention/retention basins and underground retention/detention facilities to recharge groundwater.

- **Policy CN-1.6.** Encourage the use of low-water consumption fixtures in homes and businesses.
- **Policy CN-1.7.** Require new development to use new technology, features, equipment and other methods to reduce water consumption.

MAIN STREET AND FREEWAY CORRIDORS SPECIFIC PLAN

The Main Street and Freeway Corridors Specific Plan establishes a Wash Protection Overlay that limits the construction of permanent structures within the washes' right-of-way in order to maintain their function as natural drainage courses. The project site is not located within a Wash Protection Overlay area.

FLOOD HAZARDS

For planning purposes, the flood event most often used to delineate areas subject to flooding is the 100-year flood, which identifies areas with a 1% annual flood hazard. All development located in a 100-year flood zone is subject to Federal Emergency Management Act (FEMA) regulations. Based on a review of FEMA's National Flood Hazard Layer (NFHL) Viewer, the project site is not located within any designated flood zones (FEMA 2008).

Environmental Evaluation

a) Would the project violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?

The project site does not support any surface water bodies, washes, wetlands, or riparian areas. The proposed project would require on-site grading, which could result in the erosion of on-site soils and sedimentation during heavy wind or rain events. The proposed project would be required to comply with all local, state, and federal requirements, including a state Construction General Permit, which requires the preparation of a SWPPP. A SWPPP has been prepared for the project and this plan identifies all pollutant sources, including sources of sediment that may affect the quality of stormwater discharges associated with construction activity and identifies and requires construction and implementation of BMPs to reduce or eliminate the discharge of pollutants into stormwater. These BMPs include, but are not limited to, installation of gravel bags along the perimeter of the project site, construction of a stabilized construction entrance to the site, installation of an aboveground concrete washout area, construction of a temporary sediment basin, use of fiber rolls and gravel bags for inlet protection, street sweeping, application of soil stabilizer, and application of wind erosion control sprays (Encompass Associates, Inc. 2022).

The project SWPPP was developed in full compliance with the required elements of the General Permit issued by the SWRCB. The plan also identifies post-construction BMPs intended to reduce or eliminate pollutants after construction is completed (Encompass Associates, Inc. 2022). This SWPPP was reviewed and approved by the City of Hesperia as part of their review of the proposed Tract Map and grading plan for the project site. Therefore, based on the development and implementation of the approved SWPPP prepared for the project, the project would not violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality, and impacts would be *less than significant.*

b) Would the project substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?

The proposed project would include new connections to the City of Hesperia Municipal Water System to supply the domestic water demand of the new residences. The HWD's current primary water supply includes groundwater pumped from the Alto subarea, which is one of the five subareas of the Adjudicated Mojave Basin. Based on the 2020 City of Hesperia Urban Water Management Plan, the HWD has reliable water supplies to meet its current and projected water demands in normal, single dry years, and five consecutive dry year conditions through 2045. Because the HWD extracts only as much groundwater as is necessary to meet customer demands, it is anticipated that supplies and demands are congruent across all the scenarios examined (Tully & Young, Inc. and HWD 2021). In addition, the proposed project and future project tenants would be required to comply with the City's currently adopted WSCP, which prohibits certain types of water use and requires implementation of operational water conservation measures, including, but not limited to, implementation of exterior landscape plans with timed irrigation and the use of drought resistant plants and turf options, limiting vehicle washing to washing only if the hose has an automatic shut-off device or at a commercial facility, requiring the use of evaporative resistant covers for pools, sweeping of impervious surfaces rather than using water, and encouraging residences to fix leaking sprinklers promptly, use of shut-off nozzles on hoses, and only washing full loads of laundry or dishes. Based on the City's long-term sustainable groundwater supplies and the project's required compliance with applicable local water conservation policies, impacts would be *less than significant*.

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

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

As described above, a SWPPP has been prepared for the project and this plan identifies all pollutant sources, including sources of sediment that may affect the quality of stormwater discharges associated with construction activity and identifies and requires construction and implementation of BMPs to reduce or eliminate the discharge of pollutants into stormwater. These BMPs include, but are not limited to, installation of gravel bags along the perimeter of the project site, construction of a stabilized construction entrance to the site, installation of an aboveground concrete washout area, construction of a temporary sediment basin, use of fiber rolls and gravel bags for inlet protection, street sweeping, application of soil stabilizer, and application of wind erosion control sprays (Encompass Associates, Inc. 2022).

The project SWPPP was developed in full compliance with the required elements of the General Permit issued by the SWRCB. The plan also identifies post-construction BMPs intended to reduce or eliminate pollutants after construction is completed (Encompass Associates, Inc. 2022). Based on the development and implementation of the approved SWPPP prepared for the project, the project would not result in any substantial alterations to the existing drainage pattern of the site resulting in substantial erosion or siltation on- or off-site and impacts would be *less than significant*.

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

The project site is currently undeveloped and there are no streams, rivers, or other surface water features on-site or within close proximity to the project site. The project would result in an estimated addition of

approximately 5,800 square feet of new impervious surface area on-site. With proposed off-site improvements the project would result in a total of 12,735 square feet of new impervious surface area.

The project includes the construction of a retention basin located in the northeastern lot on the project site. This basin would be approximately 10,518 square feet in area, have a have a storage capacity of 18,156 cubic feet (approximately 0.42 acre-feet). This basin system has been designed to provide water quality treatment of 24-hour, 100-year storm event stormwater flows as well as to reduce the volume of stormwater flows leaving the site to be less than or equal to predevelopment conditions (Thatcher Engineering & Associates, Inc. 2021). Construction of the retention basin would also include a gravel overflow spillway to direct stormwater flows into the City Municipal Separate Storm Sewer System in the event that the retention basin reaches capacity. Therefore, the project would not substantially increase the rate or amount of surface runoff in a manner that would result in flooding on-site or off-site and impacts would be *less than significant.*

c-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?

The project includes the construction of a retention basin located in the northeastern lot on the project site. This basin would be approximately 10,518 square feet in area, have a storage capacity of 18,156 cubic feet (approximately 0.42 acre-feet). This basin system has been designed to provide water quality treatment of 24-hour, 100-year storm event stormwater flows as well as reduce the volume of stormwater flows leaving the site to be less than or equal to predevelopment conditions (Thatcher Engineering & Associates, Inc. 2021). Construction of the retention basin would also include a gravel overflow spillway to direct stormwater flows into the City Municipal Separate Storm Sewer System in the event that the retention basin reaches capacity. Based on the drainage study prepared for the project, with the installation of stormwater collection infrastructure and the proposed retention basin on-site, there would be no increase in the volume or intensity of stormwater flows leaving the site compared to predevelopment conditions (Thatcher Engineering & Associates, Inc. 2021). Therefore, potential impacts associated with exceeding the capacity of existing or planned stormwater drainage systems or providing substantial additional sources of polluted runoff would be *less than significant*.

c-iv) Impede or redirect flood flows?

Based on a review of FEMA's NFHL Viewer, the project site is not located within any designated flood zones (FEMA 2008). Therefore, *no impacts* would occur.

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

Based on a review of FEMA's NFHL Viewer, the project site is not located within any designated flood zones (FEMA 2008). The City of Hesperia is located approximately 55 miles inland from the Pacific coast and therefore is well out of the range of projected tsunami inundation areas. The project site is not located adjacent to any large bodies of standing water that could be subject to a seiche. Therefore, *no impacts* would occur.

e) Would the project conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?

As discussed above, the proposed project would be required to comply with all local, state, and federal requirements, including a state Construction General Permit, which requires the preparation of a SWPPP. An SWPPP has been prepared for the project and this plan identifies all pollutant sources, including

sources of sediment that may affect the quality of stormwater discharges associated with construction activity and identifies and requires construction and implementation of BMPs to reduce or eliminate the discharge of pollutants into stormwater. Based on the drainage study prepared for the project, with the installation of stormwater collection infrastructure and the proposed retention basin on-site, there would be no increase in the volume or intensity of stormwater flows leaving the site compared to predevelopment conditions. Lastly, because the HWD extracts only as much groundwater as is necessary to meet customer demands and the project would be subject to policies set forth in the City's WSCP, the project's reliance on the HWD for domestic water supply would not result in any conflicts with a sustainable groundwater management plan. Therefore, potential impacts associated with conflicting with or obstructing an adopted water quality control plan or sustainable groundwater management plan would be *less than significant*.

Conclusion

The project has been designed to comply with applicable State and local water quality plans and policies, would not result in substantial depletion of groundwater supplies, and would not alter the drainage pattern of the site in a manner that would result in substantial impacts associated with erosion, flooding, or exceedance of drainage systems' capacity. Impacts associated with Hydrology and Water Quality would be less than significant and no mitigation is necessary.

Mitigation Measures

Mitigation is not necessary.

XI. Land Use and Planning

Environmental Issues	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
(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?	☐	☒	☐	☐

Setting

CITY OF HESPERIA GENERAL PLAN

The City of Hesperia General Plan is a comprehensive planning document that establishes goals and policies to guide decision-makers and the community. The City last updated its General Plan in 2010, but recent state legislation has been adopted that requires the City to update specific elements, namely Land Use, Circulation, and Safety, as well as adopt goals and policies to address environmental justice. The City is currently in the process of updating its General Plan to reflect the community's vision and priorities, as well as to comply with adopted state legislation.

CITY OF HESPERIA DEVELOPMENT CODE

Title 16 of the City Municipal Code, known as the Development Code, establishes standards and specifications for land use and development set forth in community plan land use districts and zone districts. The Development Code implements general plan policies through detailed development regulations, such as specific use types and building standards.

PROJECT SITE SETTING

The project site is surrounded by low-density single-family residential uses to the south and west, Primrose Avenue and undeveloped land to the east, and Yucca Street and a self-storage facility owned by Extra Space Storage to the north.

The project site is located within the Main Street and Freeway Corridors Specific Plan Area. The Main Street and Freeway Corridors Specific Plan was approved by the City in October 2008 and established a development framework for the Main Street and Freeway Corridors, with the intent of facilitating and encouraging development and improvements along these two corridors to help realize the community's vision for the area. The Specific Plan was most recently updated in July 2021. The 10,640-acre Specific Plan Area includes a range of uses including industrial, commercial, civic, institutional, residential, mixed-use, and parks and open space. The project site is within the MDR zone of the Specific Plan Area, which is intended to provide areas for medium-density multi-family housing such as courtyard apartments, condominiums, and walk-up townhomes.

Environmental Evaluation

a) Would the project physically divide an established community?

The project site is surrounded by low-density single-family residential uses to the south and west, Primrose Avenue and undeveloped land to the east, and Yucca Street and a self-storage facility owned by Extra Space Storage to the north. The project includes the construction of a 36-unit multi-family residential development consisting of nine two-story apartment buildings and associated site improvements on an undeveloped 2.28-acre parcel within the MDR zone of the Main Street and Freeway Corridors Specific Plan Area. The proposed project would develop the project site with land uses consistent with the allowable uses and intent of the MDR zone. The project would not result in the development of new off-site roadways or otherwise create a barrier within an established community; therefore, *no impacts* would occur.

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

As discussed above, the project is located within the MDR zone of the Main Street and Freeway Corridors Specific Plan Area. Multi-family dwelling units are listed as a permitted use under this zone, and the project would have a proposed residential density of 15 dwelling units per acre, which is within the allowable residential density established for this zone of 8 to 15 units per acre. The project site plan was reviewed by City staff for compliance with required planning and development standards and was found to be in compliance with all applicable City standards. A Site Plan Review for the project was approved by the City in February 2024.

As discussed in Section I. *Aesthetics*, Section V. *Cultural Resources*, Section X. *Hydrology and Water Quality*, Section XIII. *Noise*, Section XIV. *Population and Housing*, and Section XVII. *Transportation*,

the City General Plan includes a number of goals and policies applicable to the proposed project. As described in each of these respective sections, the project has been designed to comply with applicable policies set forth in the General Plan. Mitigation measures have been identified to reduce potential project impacts associated with biological resources and cultural resources. Upon implementation of these measures, the project would be consistent with the goals and policies set forth in the General Plan.

As discussed in Section III. *Air Quality*, and VIII. *Greenhouse Gas Emissions*, the project has been evaluated for consistency with MDAQMD emissions thresholds and the City's CAP, and the project would not result in any conflicts with these plans or their respective policies. In addition, the project would be required to be consistent with standards set forth by County Fire/CAL FIRE and the County Public Works Department. Upon implementation of identified mitigation measures, the project would not conflict with plans, policies, or regulations adopted for the purpose of avoiding or mitigating environmental effects and impacts would be *less than significant with mitigation*.

Conclusion

The project would not physically divide an established community. Potential impacts related to land use and planning would be less than significant with the implementation of the mitigation measures identified below. Therefore, impacts associated with Land Use would be less than significant with mitigation.

Mitigation Measures

Implement Mitigation Measures BIO-1 through BIO-8, CR-1 through CR-4, and TRC-1 and TRC-2.

XII. Mineral Resources

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

Setting

The California Surface Mining and Reclamation Act (SMARA) of 1975 requires that the State Geologist classify land into mineral resource zones (MRZ) according to the known or inferred mineral potential of the land (PRC Sections 2710–2796). The project site is located in an MRZ-3A area and is not located near any existing mining operations (CGS 1993). The MRZ-3A area is defined as: "Areas containing known mineral occurrences of undetermined mineral resource significance. Further exploration work within these areas could result in the reclassification of specific localities into MRZ-2a or MRZ-2b, categories. As shown on the California Mineral Land Classification Diagram, MRZ-3 is divided on the basis of knowledge of economic characteristics of the resources."

Environmental Evaluation

a) Would the project result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?

The project site is located in an MRZ-3A area and is not located near any existing mining operations (CGS 1993). The project site is not located in an area with known mineral resources; therefore, no permanent loss of mineral resources that would be of value to the region and the residents of the state would occur, and *no impacts* would occur.

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

The project site is located in an MRZ-3A area and is not located near any existing mining operations (CGS 1993). The project site is not located in an area with known mineral resources; therefore, no permanent loss of locally- important mineral resource would occur, and *no impacts* would occur.

Conclusion

No impacts to mineral resources would occur as a result of the project, and mitigation is not necessary.

Mitigation Measures

Mitigation is not necessary.

XIII. Noise

Environmental Issues	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project result in:				
(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 groundborne vibration or groundborne noise levels?	☐	☐	☒	☐
(c) For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	☒

Setting

Noise is defined as any undesired sound in the environment and can impair the quality of life by impeding rest, sleep, work, and communication. While motor vehicles are the most prevalent sources of noise, other sources contribute to urban noise such as aircraft, railroads, construction equipment, motorized landscaping tools, and home appliances. Sensitive receptors such as residences, schools, libraries, nursing homes, hospitals, and parks experience particularly acute effects of noise disturbances. The City of Hesperia sets standards and uses site planning, and noise mitigation methods to control and abate the effects of noise. The project would be subject to the City's noise mitigation measures as outlined in the General Plan. Table 6 outlines the City's noise level standards for noise-sensitive areas affected by non-transportation noise sources in the city.

Table 6. City of Hesperia Noise Standards

Receiving Land Use	Maximum Noise Level	Time Period
A-1, A-2, R-1, R-3 and RR Zone Districts	55 dB(A)	10:00 p.m.–7:00 a.m.
A-1, A-2, R-1, R-3 and RR Zone Districts	60 dB(A)*	7:00 a.m.–10:00 p.m.
C-1, C-2, C-3, C-4, C-R, AP, and P-I Zone Districts	65 dB(A)*	Anytime
I-1 and I-2 Zone Districts	70 dB(A)*	Anytime

Source: City of Hesperia (2010a)

* Due to wind noise, the maximum permissible noise level may be adjusted so that it is no greater than five dB(A) above the ambient noise level.

The City allows the following sources of noise to be exempt from the above standards:

- Motor vehicles not under the control of the industrial use;
- Emergency equipment, vehicles and devices;
- Temporary construction, repair, or demolition activities between seven a.m. and seven p.m. except Sundays and federal holidays.

In addition to the standards outlined in Table 7, the following noise goals and policies would be applicable to the proposed project:

> **Goal NS-1:** To achieve and maintain an environment which is free from excessive or harmful noise through identification, control and abatement.
>
> - **Implementation Policy: NS-1.10.** Limit the hours of construction activity in, and around, residential areas in order to reduce the intrusion of noise in the early morning and late evening hours and on weekends and holidays.
> - **Implementation Policy: NS-1.13.** Ensure adequate noise control measures at construction sites by requiring that construction equipment be fitted with manufacturer-recommended mufflers and ensuring physical separation of machinery maintenance and staging areas from adjacent residential uses.
>
> **Goal NS-2:** To achieve and maintain an environment which is free from excessive vibration.
>
> - **Implementation Policy: NS 2.1.** Control exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels as set forth in Table NS-1 and Municipal Code Section 16.20.130.

Environmental Evaluation

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

Construction

During construction of the project, noise generated from construction activities may intermittently dominate the noise environment in the immediate area. Table 7 details the typical noise levels for construction equipment likely to be used in the implementation of the project.

Table 7. Construction Equipment Noise Emission Levels

Equipment Type	Typical Noise Level (dBA) 50 Feet from Source
Concrete Mixer, Dozer, Excavator, Jackhammer, Man Lift, Paver, Scraper	85
Heavy Truck	84
Pneumatic Tools (i.e., pile driving equipment)	85
Concrete Pump	82
Backhoe, Compactor	80

Source: FHWA (2018)

The nearest off-site sensitive noise receptors are single-family residences located adjacent to the northern and southern property lines of the project site. Construction-related noise would be short-term, intermittent, and would not result in a permanent increase in ambient noise within the project area. City of Hesperia Development Code Section 16.20.125 allows temporary construction noise in excess of normally defined thresholds between the hours of 7:00 a.m. and 7:00 p.m. except Sundays and federal holidays. Proposed construction activities would be limited to the hours specified in the City Development Code and construction-related noise would be exempt from the City's noise standards, and impacts would be *less than significant*.

Operation

Development of the proposed project is not predicted to result in the exposure of existing noise-sensitive receptors to absolute noise levels exceeding the City's 60 dBA Ldn land use compatibility thresholds or result in relative increases in the ambient noise environment of 3 dB or more.

The primary increase in noise will be the result of adding vehicle traffic generated by the project to Main Street and Maple Avenue. Roadway vehicle noise is a combination of the noise produced by the engine, exhaust, and tires. The level of traffic noise depends on three primary factors (1) the volume of traffic, (2) the speed of traffic, and (3) the number of trucks in the flow of traffic.

The General Plan Circulation Element identifies the average daily trips (ADT) for major roadway sections in the City. Major roadway sections in the vicinity of the project site include Main Street between Mariposa Road and Maple Avenue, and Maple Avenue between Main Street and Sultana Street. The ADT for the roadway sections in the vicinity of the project site is projected to be 28,890 for Main Street and 6,508 for Maple Avenue. According to the CalEEMod model prepared for the project (Appendix A), the project would generate 302 daily vehicle trips. According to Caltrans, the human ear can begin to detect

sound level increases of 3 decibels (dB) in typical noisy environments. A doubling of sound energy (e.g., doubling the volume of traffic on a highway) that would result in a 3-dBA increase in sound, would generally be barely detectable. The number of daily vehicle trips generated by the project would only be 0.7% of the existing ADT on Main Street and 1% of the existing ADT on Maple Avenue, respectively. As such, the project would not result in a doubling (100%) of the daily vehicle trips in the immediate vicinity. Therefore, the traffic generated by the project would not result in a substantial permanent increase in ambient roadway noise levels, and off-site noise impacts would be *less than significant.*

The primary stationary noise sources associated with the project would include typical residential noise sources such as HVAC units. The noise attributable to the project would follow the City's limit of 55 dBA Ldn at the surrounding environment outside of the project area. The project's operations would comply with the radio, television, and/or other sound-generating device noise restrictions in Municipal Code Section 9.44.090. The project-generated noise levels associated with the single-family residence would be in compliance with these City noise regulations. Therefore, on-site operational noise impacts from the project would be *less than significant.*

b) Would the project result in generation of excessive groundborne vibration or groundborne noise levels?

The project does not propose substantial grading/earthmoving activities, pile driving, or other high-impact activities that would generate substantial groundborne noise or groundborne vibration during construction. Construction equipment has the potential to generate minor groundborne noise and/or vibration, but these activities would be limited in duration and are not likely to be perceptible from adjacent areas. The project does not propose a use that would generate long-term operational groundborne noise or vibration. Therefore, impacts related to exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels would be *less than significant.*

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 nearest airport is the Hesperia Municipal Airport, located approximately 3.5 miles southeast of the project site. As the project site is not located within an airport land use plan or within 2 miles of a public airport or private airstrip, *no impact* would occur.

Conclusion

The project would not generate a substantial increase in temporary or permanent ambient noise levels and would not generate groundborne noise in a manner that would result in disturbance. The project site is not located within an airport land use plan or within 2 miles of an airport. Therefore, potential impacts related to noise would be less than significant.

Mitigation Measures

Mitigation is not necessary.

XIV. Population and Housing

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

Setting

The Regional Housing Needs Assessment, which is required by state law, is a method of allocating housing units to jurisdictions throughout the State. Using State population data, the California Department of Housing and Community Development (HCD) mandates that a certain amount of housing units be constructed within all regional planning areas throughout the State. The Metropolitan Planning Organization under which Hesperia is subject to is the Southern California Association of Governments (SCAG). SCAG, in collaboration with HCD, calculates the number of existing and projected housing units that must be constructed within the six counties and 191 cities in Southern California.

The City of Hesperia Housing Element was updated in 2023 and is intended to adequately plan to meet the housing needs of everyone in the community. This Housing Element covers the planning period of October 15, 2021, through October 15, 2029, and establishes goals and policies intended to preserve the character of existing single-family residential neighborhoods, continue to improve higher-density neighborhoods, achieve diversity in types of housing to accommodate populations with varying socioeconomic needs, and comply with all state laws.

Hesperia has experienced major population growth since its incorporation in 1988. From 1990 to 2019, Hesperia experienced a population increase of 91%. As of January 2019, Hesperia's population was estimated to be 94,203. Development activity has slowed considerably since 2006, but Hesperia is expected to undergo some additional growth in the next few years, with the population expected to increase by another 24.3% to 117,141 residents by 2030 (City of Hesperia 2023).

Environmental Evaluation

a) Would the project induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?

The project proposes the development of nine two-story apartment buildings, resulting in 36 multi-family units. Based on the current City Housing Element, the average household size in the City in 2019 was 3.52 persons per household (City of Hesperia 2023). Accordingly, the project would be anticipated to result in the establishment of a residential population of approximately 127 people. In addition, the project site is zoned MDR and the proposed residential density of the site is within the allowed residential density of this zone (see Section XI., *Land Use and Planning*) and would not result in the extension of

utility services or roadways into previously unserved/inaccessible areas. Therefore, the project would not result in substantial unplanned population growth in an area and impacts would be *less than significant*.

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

The project site is currently undeveloped and does not support any existing residential uses. Therefore, *no impacts* would occur.

Conclusion

The project would not induce substantial unplanned population growth or displace any existing residential uses. Project impacts associated with Population and Housing would be less than significant and no mitigation is necessary.

Mitigation Measures

No mitigation is necessary.

XV. Public Services

Environmental Issues	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
(a) Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:				
Fire protection?	☐	☐	☒	☐
Police protection?	☐	☐	☒	☐
Schools?	☐	☐	☒	☐
Parks?	☐	☐	☒	☐
Other public facilities?	☐	☐	☒	☐

Setting

The San Bernardino County Fire Protection District (SBCFD) is responsible for fire protection services within the City of Hesperia. The nearest SBCFD station is Fire Station 304, located at 15660 Eucalyptus Street, approximately 2.7 miles northeast of the project site. The Hesperia Police Department is responsible for protecting the life and property of the residents living in the City and is located at 15840 Smoke Tree Street, approximately 1.8 miles east of the project site.

Hesperia Unified School District provides public education services for kindergarten through senior high school students. It includes three comprehensive high schools, two continuation high schools, three middle schools, 12 elementary schools, three choice schools, two alternative schools, one adult education school, and five charter schools. There are 15 parks and recreational facilities in the City that offer a variety of amenities such as picnicking, swimming, fishing, playgrounds, sports fields, and hiking.

Environmental Evaluation

a) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:

Fire protection?

The project would result in the development of nine two-story apartment buildings and would generate an estimated population of 127 people. The project would only marginally increase demand on existing public services, including fire protection services provided by SBCFD. The project would be constructed in accordance with applicable CFC regulations and would be subject to the payment of Development Impact Fees to address the marginal increase in demand on public services associated with new development. Based on the marginal population growth, adherence to CFC regulations, and payment of Development Impact Fees, implementation of the project would not increase demand on existing public services and facilities in a manner that would require new or physically altered fire protection facilities. Therefore, the project would not require new or physically altered governmental facilities for fire protection services, and the impacts would be *less than significant*.

Police protection?

The project would result in the development of nine two-story apartment buildings and would generate an estimated population of 127 people. The project would only marginally increase demand on existing public services, including police protection services provided by the Hesperia Police Department. The project would be subject to the payment of Development Impact Fees to address the marginal increase in demand on police protection services associated with new development. As such, implementation of the project would have a marginal increase in demand on existing police protection services and would not directly result in the need for expansion of existing or the construction of new police facilities. Therefore, the project would not require new or physically altered governmental facilities for police protection services, and the impacts would be *less than significant*.

Schools?

The project would result in the development of nine two-story apartment buildings and would generate an estimated population of 127 people. The project would only marginally increase the number of school-aged children within the city. The project would be subject to the payment of Development Impact Fees and state school taxes to address the marginal increase in demand on the Hesperia Unified School District associated with new development. As such, implementation of the project would have a marginal increase in demand on existing public schools and would not directly result in the need for expansion of existing or the construction of new school facilities. Therefore, the project would not require new or physically altered public school facilities, and the impacts would be *less than significant*.

Parks?

The project would result in the development of nine two-story apartment buildings and would generate an estimated population of 127 people. The project would be subject to the payment of Development Impact Fees to address the marginal increase in demand on public park facilities associated with new development. As such, implementation of the project would have a marginal increase in demand on existing public park facilities and would not directly result in the need for expansion of existing or the construction of new facilities. Therefore, the proposed project would not require the construction of new or physically altered public park facilities, and the impacts would be *less than significant*.

Other public facilities?

The project would result in the development of nine two-story apartment buildings and would generate an estimated population of 127 people. The project would only marginally increase the use of other public facilities, such as roadways and public libraries. The project would be subject to the City's standard Development Impact Fees, which would offset the project's marginal contribution to increased use of City facilities. Therefore, potential impacts on other public facilities would be *less than significant.*

Conclusion

The project would not induce unplanned population growth. Operation of the project may result in a marginal cumulative increase in demand on City services and facilities, including fire protection, police protection, schools, parks and recreational facilities, and other public facilities; however, construction of new facilities would not be required. Therefore, the project would not result in significant impacts to public services.

Mitigation Measures

Mitigation is not necessary.

XVI. Recreation

Environmental Issues	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
(a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	☐	☐	☒	☐
(b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	☐	☐	☐	☒

Setting

The Hesperia Recreation and Park District is an independent special district within the City of Hesperia. The City of Hesperia and the Hesperia Recreation and Park District share responsibilities in providing open space recreation and activities to the residents of the City, with most public recreational facilities provided by the Hesperia Recreation and Park District. There are 15 parks and recreational facilities in the

City that offer a variety of amenities such as picnicking, swimming, fishing, playgrounds, sports fields, and hiking (City of Hesperia 2024).

The City of Hesperia General Plan Open Space Element identifies goals, policies, and programs to help plan, develop, and maintain community parks and recreation facilities:

> **Goal OS-5:** Continue to work with the Hesperia Recreation and Park District to create and maintain a diverse park system that includes parks, community facilities, natural open space areas, and trails for residents to enjoy.
>
> - **Implementation Policy: OS-5.1.** Create a process to coordinate with the Hesperia Recreation and Park District in selection and use of open space.
> - **Implementation Policy: OS-5.2.** Provide parks and recreation facilities at a rate of five (5) acres per 1,000 residents.
> - **Implementation Policy: OS-5.3.** Assess park needs annually based upon type, population and location and coordinate need with Hesperia Recreation and Park District.
> - **Implementation Policy: OS-5.4.** Develop a high-quality network of parks and recreation facilities that meets the needs of all residents, including children, young adults, seniors, families and disabled individuals.
> - **Implementation Policy: OS-5.5.** Develop adaptable recreation facilities that have multiuse capabilities that can change with demand and population.
> - **Implementation Policy: OS-5.6.** Coordinate with other agencies and jurisdictions in a joint effort to provide recreational facilities in the City.

Environmental Evaluation

a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?

The project would result in a marginal increase in demand on existing public recreational facilities. The project would be subject to the payment of Development Impact Fees to address the marginal increase in demand on public recreational facilities associated with the proposed development. Based on the marginal population growth and required payment of Development Impact Fees, implementation of the project would not increase demand on existing public services and facilities such that substantial physical deterioration of the facility would occur or be accelerated; therefore, impacts would be *less than significant.*

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

The project does not include, nor would it require, the construction of new or expanded recreational facilities. Therefore, *no impacts* would occur.

Conclusion

The project would not increase the use of existing recreational facilities in a manner that would lead to substantial deterioration of existing recreational facilities or require the development of new or expanded recreational facilities. Therefore, impacts would be less than significant, and mitigation is not necessary.

Mitigation Measures

Mitigation is not necessary.

XVII. Transportation

Environmental Issues	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
(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?	☐	☐	☒	☐

Setting

In 2013 SB 743 was signed into law with the intent to "more appropriately balance the needs of congestion management with statewide goals related to infill development, promotion of public health through active transportation, and reduction of greenhouse gas emissions" and required the Governor's Office of Planning and Research to identify new metrics for identifying and mitigating transportation impacts within CEQA. As a result, in December 2018, the California Natural Resources Agency certified and adopted updates to the State CEQA Guidelines. The revisions included new requirements related to the implementation of SB 743 and identified vehicle miles traveled (VMT) per capita, VMT per employee, and net VMT as new metrics for transportation analysis under CEQA (as detailed in Section 15064.3(b)).

Environmental Evaluation

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

The Circulation Element of the City's General Plan establishes that roadways and intersections are required to operate at a vehicle Level of Service (LOS) D or better. The Circulation Element also identifies the ADT and the maximum roadway capacities for achieving a LOS D rating for major roadway sections in the City. Major roadway sections in the vicinity of the project site include Main Street between

Mariposa Road and Maple Avenue, and Maple Avenue between Main Street and Sultana Street. The ADT for these roadway sections in the vicinity of the project site are 28,890 for Main Street and 6,508 for Maple Avenue. The maximum roadway capacities for achieving a LOS D rating for these roadway sections are 46,100 on Main Street and 30,600 on Maple Avenue. According to the CalEEMod model prepared for the project (Appendix A), the project would generate 302 daily vehicle trips. The number of daily vehicle trips generated by the project would only be 0.7% of the existing ADT on Main Street and 1% of the existing ADT on Maple Avenue, respectively. As such, the project would not result in either roadway achieving less than a LOS D rating. Based on the marginal increase of vehicle trips generated by the project, the project would be consistent with the Circulation Element and impacts would be *less than significant*.

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

In July 2020, the City adopted the *City of Hesperia Traffic Impact Analysis Guidelines for Vehicles Miles Traveled (VMT) and Level of Service Assessment (LOS)* which establish uniform analysis methodology and thresholds of significance for determining VMT impacts under CEQA. The City's Guidelines indicate that residential projects located within a low VMT area may be presumed to have a less than significant impact absent substantial evidence to the contrary, and if the project would not significantly alter the existing built environment in such a way as to increase the rate of length of vehicle trips. To identify if a project is in a low VMT area, the San Bernardino County Transit Authority (SBCTA) screening tool is used to compare the appropriate baseline VMT for the project's traffic analysis zone (TAZ) to the City's adopted threshold of significance of 26.7 VMT per service population (SP).

Based on the results of SBCTA VMT Screening Tool, the proposed project's TAZ VMT is calculated to be 23.4 VMT/SP. Since the project's TAZ VMT is less than the City's Threshold of Significance of 26.7 VMT/SP, the proposed project is determined to be within a low VMT area and the project would be consistent with the City's VMT Screening guidelines. Therefore, impacts would be *less than significant*.

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

The project includes construction of an access road which would be constructed with a sidewalk, curb, and gutter surrounding it per City standards with ramps at each driveway of the residential buildings as well as the gated access. The project would include frontage improvements along Primrose Avenue and Yucca Street to better support traffic through the area, which would be constructed in accordance with City construction standards. Otherwise, the project would not alter pedestrian or vehicle access to the project site and would not introduce incompatible design features or equipment that would substantially increase the risk of hazards. Therefore, the project would not substantially increase hazards due to a design feature, and the impact would be *less than significant.*

d) Would the project result in inadequate emergency access?

The project site would be accessed off new driveways from Primrose Avenue and Yucca Street. The driveway will be designed to provide adequate emergency and worker access to the project site. Furthermore, roads adjacent to the project site would not require closure during project construction. Therefore, the impact would be *less than significant.*

Conclusion

The project would not generate a substantial number of new vehicle trips, generate a significant increase in VMT, or conflict with a program plan, ordinance, or policy addressing the circulation system. The proposed project would not introduce new hazardous roadway design features or incompatible land uses or result in inadequate emergency access. Therefore, impacts related to traffic and transportation would be less than significant.

Mitigation Measures

Additional mitigation is not necessary.

XVIII. Tribal Cultural Resources

Environmental Issues	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
(a) Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:				
(i) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k), or	☐	☐	☐	☒
(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.	☐	☒	☐	☐

Setting

Approved in 2014, AB 52 added tribal cultural resources to the categories of resources that must be evaluated under CEQA. Tribal cultural resources are defined as either of the following:

1. Sites, features, cultural landscapes, sacred places, and objects with cultural value to a California Native American tribe that are either of the following:
    a. Included or determined to be eligible for inclusion in the CRHR; or
    b. Included in a local register of historical resources as defined in California PRC Section 5020.1(k).
2. A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth California PRC Section 5024.1(c).

In applying these criteria for the purposes of this paragraph, the lead agency shall consider the significance of the resource to a California Native American tribe.

Recognizing that tribes have expertise with regard to their tribal history and practices, AB 52 requires lead agencies to provide notice to tribes that are traditionally and culturally affiliated with the geographic area of a proposed project if they have requested notice of projects proposed within that area. If the tribe requests consultation within 30 days upon receipt of the notice, the lead agency must consult with the tribe regarding the potential for adverse impacts on tribal cultural resources as a result of a project. Consultation may include discussing the type of environmental review necessary, the presence and/or significance of tribal cultural resources, the level of significance of a project's impacts on the tribal cultural resources, and available project alternatives and mitigation measures recommended by the tribe to avoid or lessen potential impacts on tribal cultural resources.

Environmental Evaluation

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

a-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)?

A records search was conducted for the project site that included a request for review of the Sacred Lands File, which produced positive results, as well as a records search of the SCCIC of the CHRIS, which concluded that no archaeological resources have been recorded previously within the project site or within a quarter-mile radius of the project site boundaries.

A cultural resource assessment (Appendix C) included an examination of CHRIS records, communication with Native American tribal representatives, archival and background research, a buried site sensitivity assessment, and a pedestrian survey. No archaeological resources were identified within the project area as a result of the assessment. Additionally, according to the cultural resource assessment, the sensitivity for unidentified prehistoric and historic Native American-affiliated archaeological resources, as well as the sensitivity for historic period (non-Native American) archaeological resources, is considered to be low. Therefore, *no impacts* associated with tribal cultural resources would occur.

a-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.

Pursuant to AB 52, the City provided notice to local California native tribes with geographic and/or cultural ties to the project region. Referral letters were sent to tribal representatives on April 24, 2025. As a result of the referral letters, the Yuhaaviatam of San Manuel Nation (formerly the San Manuel Band of Mission Indians) reviewed the proposed project. As a result of the review of project plans and reports, the Yuhaaviatam of San Manuel Nation (YSMN) submitted a letter to the City stating that the project area exists within Serrano ancestral territory and, therefore, is of interest to the Tribe (Appendix D). However, due to the nature and location of the project, and given the CRM Department's present state of knowledge, YSMN does not have any concerns with the project's implementation, as proposed. However, archaeological resources, while unanticipated, are unpredictable, and the possibility of encountering as-yet unidentified archaeological resources within the project area cannot be completely ruled out. Therefore, Mitigation Measures TCR-1 and TCR-2 have been identified to avoid and/or reduce potential impacts to archaeological resources. Upon implementation of the identified mitigation measures, impacts to tribal cultural resources would be *less than significant with mitigation.*

Conclusion

No tribal cultural resources have been identified as having the potential to occur on-site, and all tribal consultation requirements of AB 52 have been fulfilled. However, archaeological resources, while unanticipated, are unpredictable, and the possibility of encountering as-yet unidentified archaeological resources within the project area cannot be completely ruled out. With the implementation of Mitigation Measures CR-1 through CR-4 and TCR-1 and TCR-2, the project would not result in adverse impacts to known or unknown tribal cultural resources. Therefore, with the implementation of these mitigation measures, impacts related to tribal cultural resources would be less than significant.

Mitigation Measures

TCR-1 **Discovery of cultural resources**. The Yuhaaviatam of San Manuel Nation Cultural Resources Management Department (YSMN) shall be contacted if any pre-contact cultural resources are discovered during project implementation, and provided information regarding the nature of the find, to provide Tribal input with regards to significance and treatment. Should the find be deemed significant, as defined by CEQA, a Cultural Resources Monitoring and Treatment Plan shall be created by the archaeologist, in coordination with YSMN, and all subsequent finds shall be subject to this Plan. This Plan shall allow for a monitor to be present that represents YSMN for the remainder of the project, should YSMN elect to place a monitor on-site.

TCR-2 **Archaeological/cultural documents created as a part of the project.** All archaeological/cultural documents created as a part of the project (isolate records, site records, survey reports, testing reports, etc.) shall be supplied to the City for dissemination to YSMN. The City shall, in good faith, consult with YSMN throughout the life of the project.

XIX. Utilities and Service Systems

Environmental Issues	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
(a) Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?	☐	☒	☐	☐
(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?	☐	☐	☒	☐

Setting

The project site is located within the HWD service area. The water supply for the HWD is obtained from groundwater located in the Alto Sub-Basin of the Mojave River Watershed and groundwater aquifer. The Mojave Basin Area was the subject of a court-ordered adjudication in 1993 due to the rapid growth within the area, increased withdrawals, and lowered groundwater levels. The court's Judgment appointed Mojave Water Agency (MWA) as Watermaster of the Mojave Basin Area. The MWA recharges the groundwater basins with State Water Project–imported water, natural surface water flows, wastewater imports from outside the Mojave Water Agency's service area, and return flow from pumped groundwater not consumptively used. The court-ordered adjudication of the Mojave Basin Area allocates a variable FPA to each purveyor that supplies more than 10 acre-feet per year (AFY). The City's FPA for 2020-2021 was 11,871 AFY. The 2020 Urban Water Management Plan (UWMP) accounts for the population of Hesperia to increase from 97,000 in 2020 to 130,000 people in 2045. The UWMP estimates that this population increase would increase water demand in the district by 4,000 AFY.

Wastewater treatment is provided by the Victor Valley Wastewater Reclamation Authority (VVWRA), a Joint Powers Authority with the City of Victorville, the City of Hesperia, the Town of Apple Valley, and the County of San Bernardino. The main treatment plant is located in the northern portion of the City of Victorville. Other utility service providers for the City include electricity from SCE, natural gas from Southwest Gas Corporation, and solid waste services by Advance Disposal.

Environmental Evaluation

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

The project includes installation of water and wastewater utility conveyance pipes on-site to connect to the City water system and wastewater conveyance and treatment facilities located beneath Yucca Street and Primrose Avenue. These components have been evaluated for their potential to result in adverse environmental effects throughout this document. Mitigation Measures BIO-1 through BIO-6, and CR-1 through CR-4, would reduce potentially significant environmental impacts resulting from installation and establishment of new utility connections associated with air quality, biological resources, cultural resources, and noise to a less-than-significant level. Therefore, potential environmental impacts associated with the construction of utility connections would be *less than significant with mitigation.*

b) Would the project have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?

The project would be served with potable water by the HWD. The UWMP indicates that the per capita water use rate is 129 gallons per day per person (HWD 2020). The project is estimated to increase the population by approximately 127 persons which would create an additional water demand of 16,383 gallons (or 0.05 AF) per year. The project's incremental increase in water demand would be accommodated by the City's water supply. Development of this site is consistent with the City's long-range planning documents and has been anticipated by the City's water supply planning. The City has adequate water supply to provide potable and other water to the proposed project; therefore, the project would have sufficient water supplies available to serve the project and reasonably foreseeable future development, and impacts would be *less than significant.*

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

According to the VVWRA the per dwelling unit wastewater generation rate is 240 gallons per day per dwelling unit (VVWRA 2009). The project includes the develop 36 multi-family residential units which would create an additional wastewater generation of approximately 8,640 gallons per year. The treatment plant has a design capacity to treat 18 million gallons per day of wastewater. The treatment plant currently treats about 10.7 million gallons of wastewater per day. As such, there is adequate capacity to serve the project's projected demand in addition to the VVWRA's existing commitments. Therefore, the project would have adequate capacity to serve the project's projected wastewater demand, and impacts would be *less than significant*.

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

Construction of the project may result in a temporary increase in solid waste, which would be disposed of in accordance with applicable state and local laws and regulations, such as California Green Building

Standards Code (CALGreen) Sections 4.408 and 5.408, which require diversion of at least 75% of construction waste. Based on required compliance with CALGreen regulations, construction of the project would not generate solid waste in excess of local infrastructure capacity.

The project would result in an increase in solid waste as a result of the development of nine two-story apartment buildings. According to the CalEEMod model prepared for the project (Appendix A), the project would generate an estimated 42.36 tons per year of solid waste. Operational solid waste and recycling would be serviced by the Advance Disposal Company. The closest landfill to the project site is the Victorville Sanitary Landfill located at 18600 Stoddard Wells Road, approximately 12 miles to the northeast. According to the California Department of Resources Recycling and Recovery (CalRecycle) website, the Victorville Sanitary Landfill has a daily throughput of 3,000 tons per day and a remaining capacity of 93,400,000 cubic yards (CalRecycle 2020). The expected closure is October 1, 2047. As such, there is adequate landfill capacity to serve the project, and impacts would be *less than significant.*

e) Would the project comply with federal, state, and local management and reduction statutes and regulations related to solid waste?

As previously described, operation of the project would result in a marginal increase in solid waste, and construction-related waste (i.e., demolished materials) would be disposed of according to federal and state regulations, including CALGreen standards for diversion of construction waste. Operational and construction-related solid waste would be disposed of in accordance with applicable federal, state, and local waste requirements, and impacts would be *less than significant*.

Conclusion

Implementation of the mitigation measures identified below would reduce potential adverse environmental impacts related to the expansion of utility infrastructure at the project site. There would be adequate water supply and wastewater treatment capacity to serve the project. Further, the proposed project would not generate waste in excess of state or local standards or in excess of the capacity of local infrastructure and would be consistent with applicable federal, state, and local waste requirements. With the implementation of the identified mitigation measures, impacts related to utilities and service systems would be less than significant.

Mitigation Measures

Implement Mitigation Measures BIO-1 through BIO-8, CR-1 through CR-4, and TRC-1 and TRC-2.

XX. Wildfire

Environmental Issues	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:				
(a) Substantially impair an adopted emergency response plan or emergency evacuation plan?	☐	☐	☒	☐
(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?	☐	☐	☒	☐

	Environmental Issues	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
(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?	☐	☐	☒	☐

Setting

WILDFIRE RISK FACTORS

In central California, the fire season usually extends from roughly May through October; however, recent events indicate that wildfire behavior, frequency, and duration of the fire season are changing in California. Topography influences wildland fire to such an extent that slope conditions can often become a critical wildland fire factor. Conditions such as the speed and direction of dominant wind patterns, the length and steepness of slopes, the direction of exposure, and/or overall ruggedness of terrain influence the potential intensity and behavior of wildland fires and/or the rates at which they may spread (Barros et al. 2013).

CALIFORNIA DEPARTMENT OF FORESTRY AND FIRE PROTECTION FIRE HAZARD SEVERITY ZONES

Fire hazard severity zones are defined by CAL FIRE based on the presence of fire-prone vegetation, climate, topography, assets at risk (e.g., high population centers), and a fire protection agency's ability to provide service to the area (CAL FIRE 2024a). The City of Hesperia is located within a local responsibility area (LRA) and therefore does not have a CAL FIRE fire hazard severity zone rating.

CALIFORNIA FIRE CODE

The CFC provides minimum standards for many aspects of fire prevention and suppression activities. These standards include provisions for emergency vehicle access, water supply, fire protection systems, and the use of fire-resistant building materials.

Environmental Evaluation

a) If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project substantially impair an adopted emergency response plan or emergency evacuation plan?

The project is not located within a state responsibility area and the nearest mapped very high fire hazard severity zone is located approximately 2.2 miles southwest of the project site near Muscatel Street (CAL FIRE 2024). The project includes the development of a 36-unit multi-family residential development, consisting of nine two-story apartment buildings within a MDR zone. As discussed in Section XI., *Land Use and Planning*, the project proposes new residential uses within the allowed residential density for MDR. While project construction would result in temporary road and/or lane closures, access for

surrounding properties would be maintained at all times and the project would not result in any permanent changes to emergency access in the area. During operation, the project's on-site population would contribute additional vehicles on roadways in the event of a community evacuation. However, based on the relatively small scale of development and the project's consistency with applicable zoning and density requirements this impact would be negligible. Based on the project site's distance from a very high fire hazard severity zone, the relatively small scale of the proposed development, and consistency with applicable local development density standards, the project would not substantially impair an adopted emergency response plan or emergency evacuation plan and impacts would be *less than significant*.

b) Due to slope, prevailing winds, and other factors, if located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?

The project site is generally flat and does not contain substantial dense vegetation. Proposed uses would not significantly increase or exacerbate potential fire risks and the project does not propose any design elements that would exacerbate risks and expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of wildfire. Therefore, potential impacts would be *less than significant*.

c) If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project 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?

The project includes the construction of an internal access road and the installation of water, wastewater, and stormwater pipelines within the project site. All project construction, improvements, and utility installation would be designed and implemented in accordance with applicable CBC and CFC standards. The project would not require the installation or maintenance of infrastructure that would exacerbate fire risk or result in temporary or ongoing impacts to the environment as a result of the development of wildfire prevention, protection, and/or management techniques. Therefore, potential impacts would be *less than significant*.

d) If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project 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?

The project site is generally flat and would not be located near a steep hillslope or in an area subject to downstream flooding or landslides. The project site is not in a high or very high wildfire risk area and does not include any design elements that would 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. Therefore, impacts would be *less than significant*.

Conclusion

The project would not expose people or structures to new or exacerbated wildfire risks and would not require the development of new or expanded infrastructure or maintenance to reduce wildfire risks. Therefore, potential impacts associated with wildfire would be less than significant and no mitigation measures are necessary.

Mitigation Measures

No mitigation is necessary.

XXI. Mandatory Findings of Significance

	Environmental Issues	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
(a)	Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	☐	☒	☐	☐
(b)	Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?	☐	☐	☒	☐
(c)	Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	☐	☐	☒	☐

Environmental Evaluation

a) Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?

As discussed in each resource section above, the proposed project would have the potential to result in significant impacts to biological resources and cultural resources during project construction activities. Mitigation measures have been identified to address these potential impacts and with the implementation of these measures, impacts would be reduced to less than significant. Therefore, with compliance with existing state and local policies and implementation of identified mitigation measures, impacts associated with degradation of the quality of the environment, fish and wildlife species and populations, plant and

animal communities, and examples of major periods of California history or prehistory would be *less than significant with mitigation*.

b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?

Evaluation of cumulative impacts has been incorporated into each resource section above. Potentially significant impacts associated with biological resources and cultural resources would be limited to the construction period. Potentially significant impacts identified associated with biological resources would address site-specific biological resources and no cumulatively considerable impacts associated with loss of habitat or habitat fragmentation were identified. Potentially significant impacts to cultural resources included potential adverse effects on previously undiscovered resources within the disturbance areas of the project site. Mitigation has been identified to preserve and protect any significant cultural resources if found during project activities; therefore, impacts to cultural resources would not be cumulatively considerable.

Potential impacts identified associated with temporary construction noise, and localized concentrations of air pollutants would all be associated with construction activities and no long-term impacts would occur. Cumulative impacts associated with energy, GHG emissions, water supply, traffic, and other issue areas were evaluated and found to be less than significant and less than cumulatively considerable. Therefore, potential impacts would be *less than cumulatively considerable.*

c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?

As described in Section III. *Air Quality*, VII. *Geology and Soils*, IX. *Hazards and Hazardous Materials*, X. *Hydrology and Water Quality*, XIII. *Noise*, and XX. *Wildfire*, the project has been evaluated for environmental effects that may cause substantial adverse impacts on human beings, directly or indirectly. As detailed above, potential project impacts associated with each of these issue areas were determined to be less than significant. Therefore, the project would not have environmental effects which may cause substantial adverse effects on human beings and impacts would be *less than significant*.

Conclusion

The project would not result in any cumulatively considerable impacts or substantial adverse effects on human beings. Project impacts associated with degradation of the quality of the environment, fish and wildlife species and populations, plant and animal communities, and examples of major periods of California history or prehistory would be *less than significant with mitigation*.

Mitigation Measures

Implement Mitigation Measures BIO-1 through BIO-8, CR-1 through CR-4, and TRC-1 and TRC-2.

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APPENDIX A

CalEEMod Results

Hesperia Primrose Residential Project Custom Report

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1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	Hesperia Primrose Residential Project
Construction Start Date	4/1/2025
Operational Year	2026
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	2.80
Precipitation (days)	1.40
Location	34.42456834914574, -117.34938471324324
County	San Bernardino-Mojave Desert
City	Hesperia
Air District	Mojave Desert AQMD
Air Basin	Mojave Desert
TAZ	5183
EDFZ	10
Electric Utility	Southern California Edison
Gas Utility	Southwest Gas Corp.
App Version	2022.1.1.29

1.2. Land Use Types

Land Use Subtype	Size	Unit	Lot Acreage	Building Area (sq ft)	Landscape Area (sq ft)	Special Landscape Area (sq ft)	Population	Description
Apartments Mid Rise	36.0	Dwelling Unit	2.28	34,560	0.00	—	119	—

General Office Building	3.40	1000sqft	2.28	3,398	0.00	—	—	—
Health Club	2.21	1000sqft	2.28	2,205	0.00	—	—	—
Enclosed Parking Structure	38.0	Space	2.28	15,200	0.00	—	—	Covered parking
Parking Lot	44.0	Space	2.28	2.28	0.00	—	—	Uncovered parking

1.3. User-Selected Emission Reduction Measures by Emissions Sector

No measures selected

2. Emissions Summary

2.1. Construction Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	3.41	31.7	31.6	0.07	1.37	19.9	21.3	1.26	10.2	11.4	—	8,245	8,245	0.28	0.28	3.98	8,340
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	34.5	10.9	15.1	0.03	0.44	0.51	0.95	0.40	0.12	0.52	—	3,072	3,072	0.12	0.07	0.06	3,095
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	1.57	5.96	7.66	0.01	0.24	0.85	1.09	0.22	0.33	0.55	—	1,605	1,605	0.06	0.04	0.49	1,618
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.29	1.09	1.40	< 0.005	0.04	0.16	0.20	0.04	0.06	0.10	—	266	266	0.01	0.01	0.08	268

2.2. Construction Emissions by Year, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Year	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2025	3.41	31.7	31.6	0.07	1.37	19.9	21.3	1.26	10.2	11.4	—	8,245	8,245	0.28	0.28	3.98	8,340
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2025	34.5	10.9	15.1	0.03	0.44	0.51	0.95	0.40	0.12	0.52	—	3,072	3,072	0.12	0.07	0.06	3,095
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2025	1.57	5.96	7.66	0.01	0.24	0.85	1.09	0.22	0.33	0.55	—	1,605	1,605	0.06	0.04	0.49	1,618
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2025	0.29	1.09	1.40	< 0.005	0.04	0.16	0.20	0.04	0.06	0.10	—	266	266	0.01	0.01	0.08	268

2.4. Operations Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	2.75	1.67	13.8	0.03	0.06	1.99	2.05	0.06	0.51	0.56	27.1	3,597	3,624	2.87	0.12	8.52	3,740
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	2.24	1.73	8.58	0.02	0.06	1.99	2.05	0.06	0.51	0.56	27.1	3,376	3,404	2.87	0.13	0.48	3,513
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Unmit.	2.30	1.41	9.86	0.02	0.04	1.82	1.86	0.04	0.46	0.50	27.1	2,917	2,944	2.86	0.12	3.53	3,054
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.42	0.26	1.80	< 0.005	0.01	0.33	0.34	0.01	0.08	0.09	4.48	483	487	0.47	0.02	0.58	506

2.5. Operations Emissions by Sector, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Sector	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	1.43	1.16	10.6	0.02	0.02	1.99	2.01	0.02	0.51	0.52	—	2,416	2,416	0.09	0.11	8.25	2,458
Area	1.31	0.36	3.09	< 0.005	0.03	—	0.03	0.03	—	0.03	0.00	426	426	0.01	< 0.005	—	427
Energy	0.01	0.15	0.09	< 0.005	0.01	—	0.01	0.01	—	0.01	—	735	735	0.05	< 0.005	—	738
Water	—	—	—	—	—	—	—	—	—	—	4.28	18.8	23.0	0.44	0.01	—	37.2
Waste	—	—	—	—	—	—	—	—	—	—	22.8	0.00	22.8	2.28	0.00	—	79.8
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.27	0.27
Total	2.75	1.67	13.8	0.03	0.06	1.99	2.05	0.06	0.51	0.56	27.1	3,597	3,624	2.87	0.12	8.52	3,740
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	1.25	1.25	8.36	0.02	0.02	1.99	2.01	0.02	0.51	0.52	—	2,205	2,205	0.09	0.11	0.21	2,241
Area	0.98	0.33	0.14	< 0.005	0.03	—	0.03	0.03	—	0.03	0.00	417	417	0.01	< 0.005	—	417
Energy	0.01	0.15	0.09	< 0.005	0.01	—	0.01	0.01	—	0.01	—	735	735	0.05	< 0.005	—	738
Water	—	—	—	—	—	—	—	—	—	—	4.28	18.8	23.0	0.44	0.01	—	37.2
Waste	—	—	—	—	—	—	—	—	—	—	22.8	0.00	22.8	2.28	0.00	—	79.8
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.27	0.27
Total	2.24	1.73	8.58	0.02	0.06	1.99	2.05	0.06	0.51	0.56	27.1	3,376	3,404	2.87	0.13	0.48	3,513
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Mobile	1.17	1.18	8.29	0.02	0.02	1.82	1.84	0.02	0.46	0.48	—	2,064	2,064	0.09	0.10	3.26	2,100
Area	1.13	0.09	1.48	< 0.005	0.01	—	0.01	0.01	—	0.01	0.00	98.2	98.2	< 0.005	< 0.005	—	98.3
Energy	0.01	0.15	0.09	< 0.005	0.01	—	0.01	0.01	—	0.01	—	735	735	0.05	< 0.005	—	738
Water	—	—	—	—	—	—	—	—	—	—	4.28	18.8	23.0	0.44	0.01	—	37.2
Waste	—	—	—	—	—	—	—	—	—	—	22.8	0.00	22.8	2.28	0.00	—	79.8
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.27	0.27
Total	2.30	1.41	9.86	0.02	0.04	1.82	1.86	0.04	0.46	0.50	27.1	2,917	2,944	2.86	0.12	3.53	3,054
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.21	0.21	1.51	< 0.005	< 0.005	0.33	0.34	< 0.005	0.08	0.09	—	342	342	0.01	0.02	0.54	348
Area	0.21	0.02	0.27	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	0.00	16.3	16.3	< 0.005	< 0.005	—	16.3
Energy	< 0.005	0.03	0.02	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	122	122	0.01	< 0.005	—	122
Water	—	—	—	—	—	—	—	—	—	—	0.71	3.11	3.81	0.07	< 0.005	—	6.16
Waste	—	—	—	—	—	—	—	—	—	—	3.78	0.00	3.78	0.38	0.00	—	13.2
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.04	0.04
Total	0.42	0.26	1.80	< 0.005	0.01	0.33	0.34	0.01	0.08	0.09	4.48	483	487	0.47	0.02	0.58	506

3. Construction Emissions Details

3.1. Site Preparation (2025) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	3.31	31.6	30.2	0.05	1.37	—	1.37	1.26	—	1.26	—	5,295	5,295	0.21	0.04	—	5,314

Dust From Material Movement	—	—	—	—	—	19.7	19.7	—	10.1	10.1	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.05	0.43	0.41	< 0.005	0.02	—	0.02	0.02	—	0.02	—	72.5	72.5	< 0.005	< 0.005	—	72.8
Dust From Material Movement	—	—	—	—	—	0.27	0.27	—	0.14	0.14	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.08	0.08	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	12.0	12.0	< 0.005	< 0.005	—	12.1
Dust From Material Movement	—	—	—	—	—	0.05	0.05	—	0.03	0.03	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.10	0.08	1.45	0.00	0.00	0.23	0.23	0.00	0.05	0.05	—	255	255	0.01	0.01	0.93	259
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	3.19	3.19	< 0.005	< 0.005	0.01	3.23
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.53	0.53	< 0.005	< 0.005	< 0.005	0.54
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.3. Grading (2025) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	3.20	29.7	28.3	0.06	1.23	—	1.23	1.14	—	1.14	—	6,599	6,599	0.27	0.05	—	6,622
Dust From Material Movement	—	—	—	—	—	9.21	9.21	—	3.66	3.66	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	0.12	1.14	1.09	< 0.005	0.05	—	0.05	0.04	—	0.04	—	253	253	0.01	< 0.005	—	254
Dust From Material Movement	—	—	—	—	—	0.35	0.35	—	0.14	0.14	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.21	0.20	< 0.005	0.01	—	0.01	0.01	—	0.01	—	41.9	41.9	< 0.005	< 0.005	—	42.0
Dust From Material Movement	—	—	—	—	—	0.06	0.06	—	0.03	0.03	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.11	0.10	1.66	0.00	0.00	0.26	0.26	0.00	0.06	0.06	—	292	292	0.01	0.01	1.07	296
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.03	1.51	0.33	0.01	0.03	0.36	0.39	0.03	0.09	0.12	—	1,355	1,355	< 0.005	0.22	2.92	1,422
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.05	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	10.2	10.2	< 0.005	< 0.005	0.02	10.3
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	0.06	0.01	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	52.0	52.0	< 0.005	0.01	0.05	54.5
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.69	1.69	< 0.005	< 0.005	< 0.005	1.71

Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	8.61	8.61	< 0.005	< 0.005	0.01	9.03

3.5. Building Construction (2025) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.13	10.4	13.0	0.02	0.43	—	0.43	0.40	—	0.40	—	2,398	2,398	0.10	0.02	—	2,406
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.13	10.4	13.0	0.02	0.43	—	0.43	0.40	—	0.40	—	2,398	2,398	0.10	0.02	—	2,406
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.43	3.95	4.93	0.01	0.16	—	0.16	0.15	—	0.15	—	907	907	0.04	0.01	—	910
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.08	0.72	0.90	< 0.005	0.03	—	0.03	0.03	—	0.03	—	150	150	0.01	< 0.005	—	151
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.19	0.17	2.85	0.00	0.00	0.45	0.45	0.00	0.11	0.11	—	501	501	0.02	0.02	1.83	508
Vendor	0.01	0.23	0.10	< 0.005	< 0.005	0.06	0.07	< 0.005	0.02	0.02	—	231	231	< 0.005	0.03	0.63	241
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.15	0.18	1.91	0.00	0.00	0.45	0.45	0.00	0.11	0.11	—	443	443	0.02	0.02	0.05	449
Vendor	0.01	0.25	0.10	< 0.005	< 0.005	0.06	0.07	< 0.005	0.02	0.02	—	231	231	< 0.005	0.03	0.02	241
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.06	0.07	0.81	0.00	0.00	0.17	0.17	0.00	0.04	0.04	—	172	172	0.01	0.01	0.30	175
Vendor	< 0.005	0.09	0.04	< 0.005	< 0.005	0.02	0.02	< 0.005	0.01	0.01	—	87.5	87.5	< 0.005	0.01	0.10	91.1
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.15	0.00	0.00	0.03	0.03	0.00	0.01	0.01	—	28.6	28.6	< 0.005	< 0.005	0.05	29.0
Vendor	< 0.005	0.02	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	14.5	14.5	< 0.005	< 0.005	0.02	15.1
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.7. Paving (2025) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.80	7.45	9.98	0.01	0.35	—	0.35	0.32	—	0.32	—	1,511	1,511	0.06	0.01	—	1,517
Paving	1.33	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.18	0.25	< 0.005	0.01	—	0.01	0.01	—	0.01	—	37.3	37.3	< 0.005	< 0.005	—	37.4
Paving	0.03	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.03	0.04	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	6.17	6.17	< 0.005	< 0.005	—	6.19
Paving	0.01	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.07	0.08	0.84	0.00	0.00	0.20	0.20	0.00	0.05	0.05	—	194	194	0.01	0.01	0.02	196
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.02	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	4.92	4.92	< 0.005	< 0.005	0.01	4.99

Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.81	0.81	< 0.005	< 0.005	< 0.005	0.83
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.9. Architectural Coating (2025) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.13	0.88	1.14	< 0.005	0.03	—	0.03	0.03	—	0.03	—	134	134	0.01	< 0.005	—	134
Architectural Coatings	34.3	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.02	0.03	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	3.29	3.29	< 0.005	< 0.005	—	3.30
Architectural Coatings	0.85	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.55	0.55	< 0.005	< 0.005	—	0.55
Architectural Coatings	0.15	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03	0.04	0.38	0.00	0.00	0.09	0.09	0.00	0.02	0.02	—	88.6	88.6	< 0.005	< 0.005	0.01	89.8
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	2.25	2.25	< 0.005	< 0.005	< 0.005	2.28
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.37	0.37	< 0.005	< 0.005	< 0.005	0.38
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

4. Operations Emissions Details

4.1. Mobile Emissions by Land Use

4.1.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	0.91	0.69	6.22	0.01	0.01	1.14	1.15	0.01	0.29	0.30	—	1,387	1,387	0.05	0.06	4.72	1,411
General Office Building	0.16	0.15	1.38	< 0.005	< 0.005	0.27	0.27	< 0.005	0.07	0.07	—	322	322	0.01	0.01	1.11	328
Health Club	0.36	0.33	3.03	0.01	0.01	0.59	0.59	0.01	0.15	0.15	—	707	707	0.02	0.03	2.43	719
Enclosed Parking Structure	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Total	1.43	1.16	10.6	0.02	0.02	1.99	2.01	0.02	0.51	0.52	—	2,416	2,416	0.09	0.11	8.25	2,458
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	0.79	0.74	4.94	0.01	0.01	1.14	1.15	0.01	0.29	0.30	—	1,266	1,266	0.06	0.06	0.12	1,287
General Office Building	0.14	0.16	1.07	< 0.005	< 0.005	0.27	0.27	< 0.005	0.07	0.07	—	294	294	0.01	0.01	0.03	299
Health Club	0.32	0.35	2.34	0.01	0.01	0.59	0.59	0.01	0.15	0.15	—	645	645	0.03	0.03	0.06	655
Enclosed Parking Structure	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Total	1.25	1.25	8.36	0.02	0.02	1.99	2.01	0.02	0.51	0.52	—	2,205	2,205	0.09	0.11	0.21	2,241
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	0.14	0.13	0.93	< 0.005	< 0.005	0.20	0.20	< 0.005	0.05	0.05	—	204	204	0.01	0.01	0.32	207
General Office Building	0.02	0.02	0.16	< 0.005	< 0.005	0.04	0.04	< 0.005	0.01	0.01	—	37.7	37.7	< 0.005	< 0.005	0.06	38.3
Health Club	0.05	0.06	0.43	< 0.005	< 0.005	0.10	0.10	< 0.005	0.02	0.03	—	101	101	< 0.005	< 0.005	0.16	102
Enclosed Parking Structure	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.21	0.21	1.51	< 0.005	< 0.005	0.33	0.34	< 0.005	0.08	0.09	—	342	342	0.01	0.02	0.54	348

4.2. Energy

4.2.1. Electricity Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	226	226	0.01	< 0.005	—	227
General Office Building	—	—	—	—	—	—	—	—	—	—	—	86.4	86.4	0.01	< 0.005	—	86.8

Health Club	—	—	—	—	—	—	—	—	—	—	—	30.7	30.7	< 0.005	< 0.005	—	30.8
Enclosed Parking Structure	—	—	—	—	—	—	—	—	—	—	—	77.6	77.6	< 0.005	< 0.005	—	77.9
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	127	127	0.01	< 0.005	—	127
Total	—	—	—	—	—	—	—	—	—	—	—	548	548	0.03	< 0.005	—	550
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	226	226	0.01	< 0.005	—	227
General Office Building	—	—	—	—	—	—	—	—	—	—	—	86.4	86.4	0.01	< 0.005	—	86.8
Health Club	—	—	—	—	—	—	—	—	—	—	—	30.7	30.7	< 0.005	< 0.005	—	30.8
Enclosed Parking Structure	—	—	—	—	—	—	—	—	—	—	—	77.6	77.6	< 0.005	< 0.005	—	77.9
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	127	127	0.01	< 0.005	—	127
Total	—	—	—	—	—	—	—	—	—	—	—	548	548	0.03	< 0.005	—	550
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	37.5	37.5	< 0.005	< 0.005	—	37.6
General Office Building	—	—	—	—	—	—	—	—	—	—	—	14.3	14.3	< 0.005	< 0.005	—	14.4
Health Club	—	—	—	—	—	—	—	—	—	—	—	5.07	5.07	< 0.005	< 0.005	—	5.09

Enclosed Parking Structure	—	—	—	—	—	—	—	—	—	—	—	12.8	12.8	< 0.005	< 0.005	—	12.9
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	21.0	21.0	< 0.005	< 0.005	—	21.1
Total	—	—	—	—	—	—	—	—	—	—	—	90.7	90.7	0.01	< 0.005	—	91.1

4.2.3. Natural Gas Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	0.01	0.10	0.04	< 0.005	0.01	—	0.01	0.01	—	0.01	—	127	127	0.01	< 0.005	—	128
General Office Building	< 0.005	0.03	0.02	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	29.9	29.9	< 0.005	< 0.005	—	30.0
Health Club	< 0.005	0.03	0.02	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	30.3	30.3	< 0.005	< 0.005	—	30.4
Enclosed Parking Structure	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Parking Lot	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.01	0.15	0.09	< 0.005	0.01	—	0.01	0.01	—	0.01	—	188	188	0.02	< 0.005	—	188
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	0.01	0.10	0.04	< 0.005	0.01	—	0.01	0.01	—	0.01	—	127	127	0.01	< 0.005	—	128

General Office Building	< 0.005	0.03	0.02	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	29.9	29.9	< 0.005	< 0.005	—	30.0
Health Club	< 0.005	0.03	0.02	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	30.3	30.3	< 0.005	< 0.005	—	30.4
Enclosed Parking Structure	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Parking Lot	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.01	0.15	0.09	< 0.005	0.01	—	0.01	0.01	—	0.01	—	188	188	0.02	< 0.005	—	188
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	< 0.005	0.02	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	21.1	21.1	< 0.005	< 0.005	—	21.1
General Office Building	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	4.95	4.95	< 0.005	< 0.005	—	4.96
Health Club	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	5.02	5.02	< 0.005	< 0.005	—	5.03
Enclosed Parking Structure	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Parking Lot	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	< 0.005	0.03	0.02	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	31.0	31.0	< 0.005	< 0.005	—	31.1

4.3. Area Emissions by Source

4.3.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Source	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	0.02	0.33	0.14	< 0.005	0.03	—	0.03	0.03	—	0.03	0.00	417	417	0.01	< 0.005	—	417
Consumer Products	0.88	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.08	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.33	0.03	2.95	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	9.18	9.18	< 0.005	< 0.005	—	9.21
Total	1.31	0.36	3.09	< 0.005	0.03	—	0.03	0.03	—	0.03	0.00	426	426	0.01	< 0.005	—	427
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	0.02	0.33	0.14	< 0.005	0.03	—	0.03	0.03	—	0.03	0.00	417	417	0.01	< 0.005	—	417
Consumer Products	0.88	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.08	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	0.98	0.33	0.14	< 0.005	0.03	—	0.03	0.03	—	0.03	0.00	417	417	0.01	< 0.005	—	417
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hearths	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	0.00	15.5	15.5	< 0.005	< 0.005	—	15.5
Consumer Products	0.16	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.02	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Landscape Equipme	0.03	< 0.005	0.27	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.75	0.75	< 0.005	< 0.005	—	0.75
Total	0.21	0.02	0.27	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	0.00	16.3	16.3	< 0.005	< 0.005	—	16.3

4.4. Water Emissions by Land Use

4.4.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	2.88	12.6	15.5	0.30	0.01	—	25.0
General Office Building	—	—	—	—	—	—	—	—	—	—	1.16	5.07	6.23	0.12	< 0.005	—	10.1
Health Club	—	—	—	—	—	—	—	—	—	—	0.25	1.09	1.34	0.03	< 0.005	—	2.17
Enclosed Parking Structure	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Parking Lot	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	4.28	18.8	23.0	0.44	0.01	—	37.2
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	2.88	12.6	15.5	0.30	0.01	—	25.0

General Office Building	—	—	—	—	—	—	—	—	—	—	1.16	5.07	6.23	0.12	< 0.005	—	10.1
Health Club	—	—	—	—	—	—	—	—	—	—	0.25	1.09	1.34	0.03	< 0.005	—	2.17
Enclosed Parking Structure	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Parking Lot	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	4.28	18.8	23.0	0.44	0.01	—	37.2
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	0.48	2.08	2.56	0.05	< 0.005	—	4.13
General Office Building	—	—	—	—	—	—	—	—	—	—	0.19	0.84	1.03	0.02	< 0.005	—	1.66
Health Club	—	—	—	—	—	—	—	—	—	—	0.04	0.18	0.22	< 0.005	< 0.005	—	0.36
Enclosed Parking Structure	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Parking Lot	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	0.71	3.11	3.81	0.07	< 0.005	—	6.16

4.5. Waste Emissions by Land Use

4.5.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	14.3	0.00	14.3	1.43	0.00	—	50.1
General Office Building	—	—	—	—	—	—	—	—	—	—	1.70	0.00	1.70	0.17	0.00	—	5.96
Health Club	—	—	—	—	—	—	—	—	—	—	6.77	0.00	6.77	0.68	0.00	—	23.7
Enclosed Parking Structure	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Parking Lot	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	22.8	0.00	22.8	2.28	0.00	—	79.8
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	14.3	0.00	14.3	1.43	0.00	—	50.1
General Office Building	—	—	—	—	—	—	—	—	—	—	1.70	0.00	1.70	0.17	0.00	—	5.96
Health Club	—	—	—	—	—	—	—	—	—	—	6.77	0.00	6.77	0.68	0.00	—	23.7
Enclosed Parking Structure	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Parking Lot	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	22.8	0.00	22.8	2.28	0.00	—	79.8
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Apartments	—	—	—	—	—	—	—	—	—	—	2.37	0.00	2.37	0.24	0.00	—	8.30
General Office Building	—	—	—	—	—	—	—	—	—	—	0.28	0.00	0.28	0.03	0.00	—	0.99
Health Club	—	—	—	—	—	—	—	—	—	—	1.12	0.00	1.12	0.11	0.00	—	3.92
Enclosed Parking Structure	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Parking Lot	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	3.78	0.00	3.78	0.38	0.00	—	13.2

4.6. Refrigerant Emissions by Land Use

4.6.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.25	0.25
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.01	0.01
Health Club	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.01	0.01
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.27	0.27
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.25	0.25
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.01	0.01
Health Club	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.01	0.01
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.27	0.27
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Apartments Mid Rise	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.04	0.04
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	< 0.005	< 0.005
Health Club	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	< 0.005	< 0.005
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.04	0.04

4.7. Offroad Emissions By Equipment Type

4.7.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.8. Stationary Emissions By Equipment Type

4.8.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.9. User Defined Emissions By Equipment Type

4.9.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Vegetation	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.2. Above and Belowground Carbon Accumulation by Land Use Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Species	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

5. Activity Data

5.1. Construction Schedule

Phase Name	Phase Type	Start Date	End Date	Days Per Week	Work Days per Phase	Phase Description
Site Preparation	Site Preparation	4/1/2025	4/7/2025	5.00	5.00	—
Grading	Grading	4/8/2025	4/25/2025	5.00	14.0	—
Building Construction	Building Construction	4/26/2025	11/5/2025	5.00	138	—
Paving	Paving	11/6/2025	11/18/2025	5.00	9.00	—
Architectural Coating	Architectural Coating	11/19/2025	12/1/2025	5.00	9.00	—

5.2. Off-Road Equipment

5.2.1. Unmitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Site Preparation	Rubber Tired Dozers	Diesel	Average	3.00	8.00	367	0.40

Site Preparation	Tractors/Loaders/Back	Diesel	Average	4.00	8.00	84.0	0.37
Grading	Graders	Diesel	Average	1.00	8.00	148	0.41
Grading	Excavators	Diesel	Average	2.00	8.00	36.0	0.38
Grading	Tractors/Loaders/Backhoes	Diesel	Average	2.00	8.00	84.0	0.37
Grading	Scrapers	Diesel	Average	2.00	8.00	423	0.48
Grading	Rubber Tired Dozers	Diesel	Average	1.00	8.00	367	0.40
Building Construction	Forklifts	Diesel	Average	3.00	8.00	82.0	0.20
Building Construction	Generator Sets	Diesel	Average	1.00	8.00	14.0	0.74
Building Construction	Cranes	Diesel	Average	1.00	7.00	367	0.29
Building Construction	Welders	Diesel	Average	1.00	8.00	46.0	0.45
Building Construction	Tractors/Loaders/Backhoes	Diesel	Average	3.00	7.00	84.0	0.37
Paving	Pavers	Diesel	Average	2.00	8.00	81.0	0.42
Paving	Paving Equipment	Diesel	Average	2.00	8.00	89.0	0.36
Paving	Rollers	Diesel	Average	2.00	8.00	36.0	0.38
Architectural Coating	Air Compressors	Diesel	Average	1.00	6.00	37.0	0.48

5.3. Construction Vehicles

5.3.1. Unmitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Site Preparation	—	—	—	—
Site Preparation	Worker	17.5	18.5	LDA,LDT1,LDT2
Site Preparation	Vendor	—	10.2	HHDT,MHDT
Site Preparation	Hauling	0.00	20.0	HHDT
Site Preparation	Onsite truck	—	—	HHDT
Grading	—	—	—	—
Grading	Worker	20.0	18.5	LDA,LDT1,LDT2

Grading	Vendor	—	10.2	HHDT,MHDT
Grading	Hauling	19.9	20.0	HHDT
Grading	Onsite truck	—	—	HHDT
Building Construction	—	—	—	—
Building Construction	Worker	34.3	18.5	LDA,LDT1,LDT2
Building Construction	Vendor	7.26	10.2	HHDT,MHDT
Building Construction	Hauling	0.00	20.0	HHDT
Building Construction	Onsite truck	—	—	HHDT
Paving	—	—	—	—
Paving	Worker	15.0	18.5	LDA,LDT1,LDT2
Paving	Vendor	—	10.2	HHDT,MHDT
Paving	Hauling	0.00	20.0	HHDT
Paving	Onsite truck	—	—	HHDT
Architectural Coating	—	—	—	—
Architectural Coating	Worker	6.86	18.5	LDA,LDT1,LDT2
Architectural Coating	Vendor	—	10.2	HHDT,MHDT
Architectural Coating	Hauling	0.00	20.0	HHDT
Architectural Coating	Onsite truck	—	—	HHDT

5.4. Vehicles

5.4.1. Construction Vehicle Control Strategies

Non-applicable. No control strategies activated by user.

5.5. Architectural Coatings

Phase Name	Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
Architectural Coating	69,984	23,328	12,874	3,298	11,918

5.6. Dust Mitigation

5.6.1. Construction Earthmoving Activities

Phase Name	Material Imported (cy)	Material Exported (cy)	Acres Graded (acres)	Material Demolished (sq. ft.)	Acres Paved (acres)
Site Preparation	—	—	7.50	0.00	—
Grading	300	2,220	42.0	0.00	—
Paving	0.00	0.00	0.00	0.00	4.56

5.6.2. Construction Earthmoving Control Strategies

Non-applicable. No control strategies activated by user.

5.7. Construction Paving

Land Use	Area Paved (acres)	% Asphalt
Apartments Mid Rise	—	0%
General Office Building	0.00	0%
Health Club	0.00	0%
Enclosed Parking Structure	2.28	100%
Parking Lot	2.28	100%

5.8. Construction Electricity Consumption and Emissions Factors

kWh per Year and Emission Factor (lb/MWh)

Year	kWh per Year	CO2	CH4	N2O
2025	0.00	532	0.03	< 0.005

5.9. Operational Mobile Sources

5.9.1. Unmitigated

Land Use Type	Trips/Weekday	Trips/Saturday	Trips/Sunday	Trips/Year	VMT/Weekday	VMT/Saturday	VMT/Sunday	VMT/Year

Apartments Mid Rise	196	177	147	67,953	1,615	1,458	1,214	560,412
General Office Building	33.1	7.51	2.38	9,144	378	85.9	27.2	104,552
Health Club	72.6	46.0	58.9	24,403	830	526	674	279,017
Enclosed Parking Structure	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

5.10. Operational Area Sources

5.10.1. Hearths

5.10.1.1. Unmitigated

Hearth Type	Unmitigated (number)
Apartments Mid Rise	—
Wood Fireplaces	0
Gas Fireplaces	20
Propane Fireplaces	0
Electric Fireplaces	0
No Fireplaces	16
Conventional Wood Stoves	0
Catalytic Wood Stoves	0
Non-Catalytic Wood Stoves	0
Pellet Wood Stoves	0

5.10.2. Architectural Coatings

Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
69984	23,328	12,874	3,298	11,918

5.10.3. Landscape Equipment

Season	Unit	Value
Snow Days	day/yr	0.00
Summer Days	day/yr	180

5.11. Operational Energy Consumption

5.11.1. Unmitigated

Electricity (kWh/yr) and CO2 and CH4 and N2O and Natural Gas (kBTU/yr)

Land Use	Electricity (kWh/yr)	CO2	CH4	N2O	Natural Gas (kBTU/yr)
Apartments Mid Rise	155,382	532	0.0330	0.0040	397,338
General Office Building	59,302	532	0.0330	0.0040	93,241
Health Club	21,031	532	0.0330	0.0040	94,564
Enclosed Parking Structure	53,222	532	0.0330	0.0040	0.00
Parking Lot	87,002	532	0.0330	0.0040	0.00

5.12. Operational Water and Wastewater Consumption

5.12.1. Unmitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
Apartments Mid Rise	1,500,522	0.00
General Office Building	603,939	0.00
Health Club	130,411	0.00
Enclosed Parking Structure	0.00	0.00
Parking Lot	0.00	0.00

5.13. Operational Waste Generation

5.13.1. Unmitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
Apartments Mid Rise	26.6	—
General Office Building	3.16	—
Health Club	12.6	—
Enclosed Parking Structure	0.00	—
Parking Lot	0.00	—

5.14. Operational Refrigeration and Air Conditioning Equipment

5.14.1. Unmitigated

Land Use Type	Equipment Type	Refrigerant	GWP	Quantity (kg)	Operations Leak Rate	Service Leak Rate	Times Serviced
Apartments Mid Rise	Average room A/C & Other residential A/C and heat pumps	R-410A	2,088	< 0.005	2.50	2.50	10.0
Apartments Mid Rise	Household refrigerators and/or freezers	R-134a	1,430	0.12	0.60	0.00	1.00
General Office Building	Household refrigerators and/or freezers	R-134a	1,430	0.02	0.60	0.00	1.00
General Office Building	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0
Health Club	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0
Health Club	Stand-alone retail refrigerators and freezers	R-134a	1,430	0.04	1.00	0.00	1.00

5.15. Operational Off-Road Equipment

5.15.1. Unmitigated

Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor

5.16. Stationary Sources

5.16.1. Emergency Generators and Fire Pumps

Equipment Type	Fuel Type	Number per Day	Hours per Day	Hours per Year	Horsepower	Load Factor

5.16.2. Process Boilers

Equipment Type	Fuel Type	Number	Boiler Rating (MMBtu/hr)	Daily Heat Input (MMBtu/day)	Annual Heat Input (MMBtu/yr)

5.17. User Defined

Equipment Type	Fuel Type

5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres

5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.2. Sequestration

5.18.2.1. Unmitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)

7. Health and Equity Details

7.1. CalEnviroScreen 4.0 Scores

The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Exposure Indicators	—
AQ-Ozone	95.3
AQ-PM	41.4
AQ-DPM	14.5
Drinking Water	17.9
Lead Risk Housing	28.0
Pesticides	0.00
Toxic Releases	27.7
Traffic	90.1
Effect Indicators	—
CleanUp Sites	0.00
Groundwater	0.00
Haz Waste Facilities/Generators	50.1
Impaired Water Bodies	0.00
Solid Waste	0.00
Sensitive Population	—
Asthma	43.8
Cardio-vascular	78.1
Low Birth Weights	61.7
Socioeconomic Factor Indicators	—

Education	67.6
Housing	47.6
Linguistic	53.9
Poverty	66.6
Unemployment	47.0

8. User Changes to Default Data

Screen	Justification
Land Use	Land use size per project description.
Construction: Construction Phases	8 months of construction per project description
Operations: Hearths	No wood fireplaces or woodstoves

APPENDIX B

Biological Resources Report for the Hesperia-Primrose Land Development Project, Hesperia, California

SWCA®
ENVIRONMENTAL CONSULTANTS
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January 10, 2024

Yaret Salas
San Luis Concrete
2130 West Highland Avenue
San Bernardino, California 92407

Submitted via email: yaret@sanluisconcrete.com

Re: Biological Resources Report for the Hesperia-Primrose Land Development Project, Hesperia, California

Dear Yaret Salas:

This memorandum summarizes the results of the preconstruction survey conducted by SWCA Environmental Consultants (SWCA) for the Hesperia-Primrose Land Development Project (project). The project is located on the southwest corner of Yucca Street and Primrose Avenue in Hesperia, San Bernardino County, California. San Luis Concrete retained SWCA to determine the potential for the project to have a significant effect on biological resources, including western Joshua tree (*Yucca brevifolia*).

Project activities include the construction of a 36-unit apartment complex on an approximately 2.7-acre site within the city of Hesperia, California. The City of Hesperia provided a request for information letter in response to submittal of a project application. The letter states the need for "a written letter from a biologist, certified arborist, or registered botanist" confirming that there are "no Joshua Trees or any other protected plants on site." Based on a cursory view of existing aerial imagery, the site appeared to be cleared of all vegetation. However, western Joshua trees are present on neighboring parcels. Therefore, a site visit was performed to confirm the locations of western Joshua trees on adjacent parcels, and to determine the presence—or indicators of presence—of other special-status species.

Western Joshua trees were not found within 15 meters (50 feet) of the proposed project site; therefore, it is determined that there will not be incidental take of western Joshua trees due to project implementation, and a western Joshua tree Incidental Take Permit will not be required for the project. In addition, no other protected plants or special-status species or sign were observed within the project site.

Sincerely,

Shirley M. Innecken

Shirley M. Innecken
Lead Natural Resources Project Manager

METHODS

Desktop Review

A desktop-based review was conducted to identify biological resources of interest near the project area. Species occurrences from the CDFW California Natural Diversity Database (CNDDB) RareFind 5[1] and the California Native Plant Society's (CNPS's) Rare Plant Inventory[2], and U.S. Fish and Wildlife Service Information for Planning and Consultation (IPaC) species list [3] were queried for data relevant to the project to determine which special-status plant and wildlife species required analysis. The data search centered on six USGS 7.5-minute quadrangles surrounding the project area: Hesperia (site), Apple Valley South, Apple Valley North, Victorville, Adelanto, Baldy Mesa. Southern quadrangles Cajon, Silverwood Lake, and Lake Arrowhead were excluded from the desktop review due to mountainous habitat.

Potential for occurrence of special-status species within the project area and the immediate vicinity was assessed following the database searches. During the pre-field desktop assessment, each species was assigned to one of the categories listed below:

- **High Potential**: The species has been documented in the vicinity (within 5 miles of the project area based on recent [within 20 years] CNDDB or other records or based on professional expertise specific to the area or species), and there is suitable habitat within the project area that makes the probability of the species occurring there high. Alternatively, there is high-quality suitable habitat within the project area and within the known range of the species. Bird species in this category were differentiated based on their occurrence within the project area as breeding, foraging only, and/or transients.
- **Moderate Potential**: Species is known to occur within the project area (based on non-historic [within 40 years] CNDDB or other records or based on professional expertise specific to the area or species), and there is moderate quality habitat at the project area that makes the probability of the species occurring there moderate. Alternatively, there is moderate-quality habitat in the part of the project area that falls within the known range of the species.
- **Low Potential**: The project area is within the species' currently known range, but vegetation communities, soils, etc., do not resemble those known to be used by the species; or conditions appear suitable, but the project area is beyond the species' currently known range; or the species was recorded more than 40 years ago within the project area.
- **Absent**: There is no suitable habitat for the species within the project area, or the area is located well outside the known range of the species.

Preconstruction Survey

SWCA Environmental Consultants (SWCA) biologist Bridget Manjarrez conducted a preconstruction survey of the Hesperia-Primrose Land Development Project (project) site on December 23, 2023. The project is located on the southwest corner of Yucca Street and Primrose Avenue in Hesperia, San Bernardino County, California (Figures 1 and 2). The survey was performed between 12:00 p.m. and 12:30 p.m. Weather conditions during the survey were moderate with a temperature of 54 degrees

[1] California Department of Fish and Wildlife. 2023. California Natural Diversity Database (CNDDB). Electronic database managed by the Natural Diversity Data Base, Wildlife Data and Habitat Analysis Branch, California Department of Fish and Wildlife. Sacramento, California. Available at: https://www.wildlife.ca.gov/Data/CNDDB/Maps-and-Data. Accessed December 2023.

[2] California National Plant Society. 2023. Rare Plant Inventory (online edition). California Native Plant Society. Sacramento, California. Available at: http://www.rareplants.cnps.org/. Accessed December 2023.

[3] U.S. Fish and Wildlife Service. 2023. Information for Planning and Consultation (IPaC). Available at: http://ecos.fws.gov/ipac/. Accessed December 2023.

Fahrenheit, wind speed of 0 to 5 miles per hour, and 65% cloud cover. The survey area consisted of the proposed project site and a 50-foot buffer around the project site (see Figure 2). The survey was conducted on foot and in accordance with the requirements detailed in California Department of Fish and Wildlife's Fish and Game Code section 1927.3, subdivision (a)(1) "Census Instructions."[4] The biologist searched for western Joshua tree (*Yucca brevifolia*) potential habitat or any indicators of special-status species such as old nests, scat, and burrows. Wildlife observations and sign were photographed and recorded using a GPS unit with submeter accuracy.

RESULTS

Based on the results of the literature and database review, 26 special-status wildlife species and 20 special-status plant species were found to have occurrences within the literature and records query area. Western Joshua tree, desert kit fox (*Vulpes macrotis arsipus*), and American badger (*Taxidea taxus*) are not tracked in CNDDB or IPac, however, are widespread in the Mojave Desert and were included in the review. Three special-status wildlife species were determined to have moderate potential based on quality of habitat, and the survey area falling within the known range for these species. These species include desert kit fox, American badger, and burrowing owl (*Athene cunicularia*). The remaining 23 special-status wildlife species were determined absent from the survey area due to lack of suitable habitat. 19 special-status plant species were determined absent from the survey area due to lack of suitable habitat, or the survey area is not within the known range for the species. Western Joshua tree was determined to have moderate potential within the survey area due quality of habitat and falling within the known range of this species.

Preconstruction Survey Results

The project site is within a previously disturbed area within a residential area and is best described in A Manual of California Vegetation as disturbed habitat.[5] The dominant plant species in the survey area is common mustard (*Brassica juncea*), with redstem filaree (*Erodium cicutarium*), bristly fiddleneck (*Amsinckia tessellate*), and tumbleweed (*Amaranthus albus*). Trash was observed on-site. Photographs of the project site are provided in Appendix A (Photographs A-1 through A-5).

The habitat within the survey area is generally suitable for western Joshua tree, which prefers open habitat with sparse vegetation, and sandy or gravelly soils. However, no western Joshua trees were found during the survey. An unknown small mammal burrow and unknown canine dig were present in the southeast and south-central portions of the survey area, respectively, and were not able to be identified further due to lack of scat and tracks (Figure 3). Based on the size, depth, and lack of diagnostic features in the burrows, it was concluded that they do not belong to special-status species such as burrowing owl, desert kit fox, or American badger. Common raven (*Corvus corax*) was observed on-site. No protected plants or other special-status species or their sign were observed during the surveys. No other wildlife was observed in the survey area.

SUMMARY

SWCA conducted a preconstruction survey for western Joshua tree in December 2023. No western Joshua trees, protected plants, or other special-status species were observed. Proposed work activities are not anticipated to impact western Joshua tree or any other special-status species.

[4] California Department of Fish and Wildlife. 2023. Census Instructions. Habitat Conservation Planning Branch. Sacramento, California. Available at: https://wildlife.ca.gov/Conservation/Environmental-Review/WJT/Permitting/Census-Instructions. Accessed December 2023.

[5] California Native Plant Society. 2023. A Manual of California Vegetation Online. California Native Plant Society. Sacramento, California. Available at: https://vegetation.cnps.org/. Accessed December 2023.

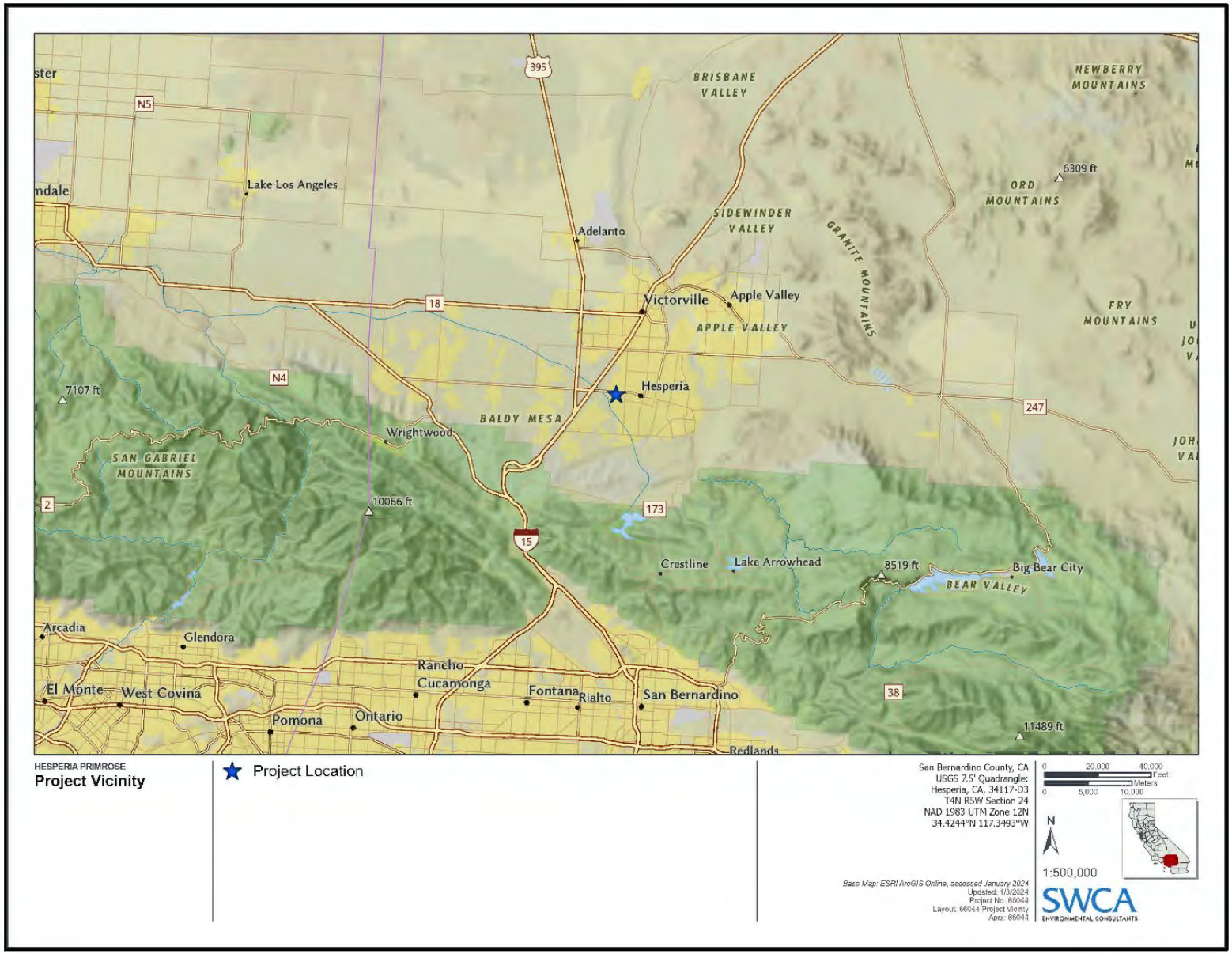


Figure 1. Project vicinity.

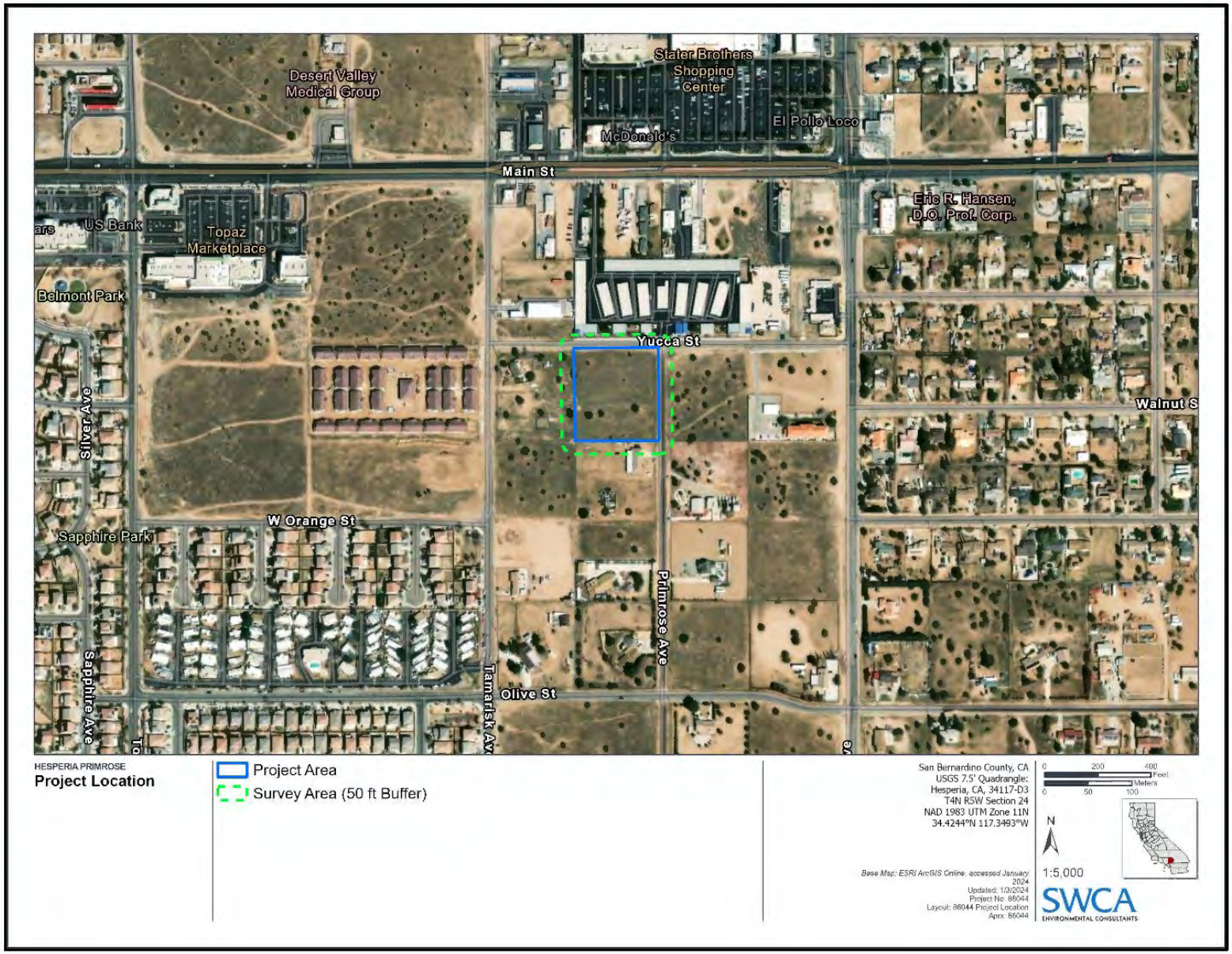


Figure 2. Project area and survey area with aerial background.



Figure 3. Observed burrows in the survey area.

APPENDIX A

Site Photographs



Photograph A-1. Southern portion of the survey area; view facing north. Photographed December 23, 2023.



Photograph A-2. Southwestern portion of the survey area; view facing northeast. Photographed December 23, 2023.



Photograph A-3. South portion of the survey area; view facing northwest, with evidence of trash on-site. Photographed December 23, 2023.



Photograph A-4. Unknown canine dig on-site. Photographed December 23, 2023.



Photograph A-5. Unknown small mammal burrow on-site. Photographed December 23, 2023.

APPENDIX C

Cultural Resources Technical Report for the Hesperia-Primrose Land Development Project

Cultural Resources Technical Report for the Hesperia-Primrose Land Development Project, Hesperia, San Bernardino County, California

APRIL 2025

PREPARED FOR

San Luis Concrete

PREPARED BY

SWCA Environmental Consultants

CULTURAL RESOURCES TECHNICAL REPORT FOR THE HESPERIA-PRIMROSE LAND DEVELOPMENT PROJECT, HESPERIA, SAN BERNARDINO COUNTY, CALIFORNIA

Prepared for

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2130 West Highland Avenue
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Prepared by

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SWCA Project No. 92511

Report No. 25-308

April 2025

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INTRODUCTION

This report summarizes the results of a Phase I cultural resources assessment in support of the Hesperia-Primrose Land Development Project (project). The project is located directly west of Primrose Avenue, southwest of the intersection of Primrose Avenue and Yucca Street in Hesperia, San Bernardino County, California. San Luis Concrete retained SWCA Environmental Consultants (SWCA) to analyze potential impacts to archaeological resources within the project area pursuant to the California Environmental Quality Act (CEQA), including relevant portions of Public Resources Code (PRC) Section 5024.1, 14 California Code of Regulations (CCR) 15064.5 of the State CEQA Guidelines, and PRC Sections 21083.2 and 21084.1.

This report documents the methods and results of a confidential records search of the California Historical Resources Information System (CHRIS), a Sacred Lands File (SLF) Search by the Native American Heritage Commissions (NAHC), archival research to evaluate the presence or likelihood of archaeological resources, and an intensive archaeological survey of the project area. The project is subject to review under CEQA, and the City of Hesperia (City) is the lead CEQA agency.

SWCA Archaeologists Erica Nicolay, M.A., and Jennie Stott, M.A., prepared the report. Senior Project Manager Robbie Thomas, M.A., Registered Professional Archaeologist (RPA) provided oversight and managed the field effort, and Cultural Resource Director Kyle Knabb, Ph.D., RPA, acted as Principal Investigator. Copies of the report will be kept on file with SWCA's Pasadena office and the South Central Coastal Information Center (SCCIC), located at California State University, Fullerton.

PROJECT DESCRIPTION AND LOCATION

The proposed project includes the construction of a 36-unit multifamily residential development, consisting of nine two-story apartment buildings. Associated site improvements include a paved access road and parking areas, a leasing office building with a recreational room, common outdoor recreation areas, a trash enclosure, a playground, a stormwater infiltration system, perimeter fencing, and other on-site improvements on a 2.28-acre property. The project would also include off-site utility improvements along the property frontages (approximately 0.26 acre). The project is directly west of Primrose Avenue, southwest of the intersection of Primrose Avenue and Yucca Street within the city of Hesperia, San Bernardino County, California (project area; Appendix A:Figure A-1 and Figure A-2). The project area is in Section 13 of Township 4 North, Range 5 West, which is plotted on the U.S. Geological Survey (USGS) Hesperia, California, 7.5-minute quadrangle (Appendix A:Figure A-3).

REGULATORY SETTING

California Environmental Quality Act

Under CEQA, a "project that may cause a substantial adverse change in the significance of a historic resource is a project that may have a significant effect on the environment" (PRC Section 21084.1). CEQA requires a lead agency to analyze whether historic or archaeological resources, or both, may be adversely impacted by a proposed project. Answering this question is a two-part process: first, the determination must be made as to whether the proposed project involves cultural resources. Second, if cultural resources are present, the proposed project must be analyzed for a potential "substantial adverse change in the significance" of the resource.

Historical Resources

According to State CEQA Guidelines (14 CCR 15064.5), for the purposes of CEQA, historical resources are:

- A resource listed in, or formally determined eligible for the California Register of Historical Resources (PRC 5024.1, 14 CCR 4850 et seq.).
- A resource included in a local register of historical resources, as defined in Section 5020.1(k) of the PRC or identified as significant in a historic resources survey meeting the requirements of Section 5024.1(g) of the PRC.
- Any object, building, structure, site, area, place, record, or manuscript that the lead agency determines to be eligible for national, state, or local landmark listing; generally, a resource shall be considered by the lead agency to be historically significant (and therefore a historic resource under CEQA) if the resource meets the criteria for the California Register (as defined in PRC Section 5024.1, 14 CCR 4852).

Resources nominated to the California Register of Historical Resources (CRHR) must retain enough of their historic character or appearance to convey the reasons for their significance. Resources whose historic integrity (as defined above) does not meet National Register of Historic Places (NRHP) criteria may still be eligible for the CRHR.

According to CEQA, the fact that a resource is not in or determined eligible for the CRHR or is not included in a local register or survey shall not preclude the lead agency from determining that the resource may be a historical resource (PRC Section 5024.1). Pursuant to CEQA, a project with an effect that may cause a substantial adverse change in the significance of a historical resource may have a significant effect on the environment (State CEQA Guidelines [14 CCR 15064.5{b}]).

SUBSTANTIAL ADVERSE CHANGE AND INDIRECT IMPACTS TO HISTORICAL RESOURCES

State CEQA Guidelines specify that a "substantial adverse change in the significance of an historical resource means physical demolition, destruction, relocation, or alteration of the resource or its immediate surroundings such that the significance of an historical resource would be materially impaired" (14 CCR 15064.5 [b][1]). Material impairment occurs when a project adversely alters or demolishes "those physical characteristics of an historical resource that convey its historical significance and that justify its inclusion" (14 CCR 15064.5[b][2][A]) or eligibility for inclusion in the NRHP, CRHR, or local register. In addition, pursuant to State CEQA Guidelines Section, the "direct and indirect significant effects of the project on the environment shall be clearly identified and described, giving due consideration to both the short-term and long-term effects" (14 CCR 15126.2[a]).

The following guides and requirements are of particular relevance to this study's analysis of indirect impacts to historic resources. Pursuant to State CEQA Guidelines (14 CCR 15378), study of a project under CEQA requires consideration of "the whole of an action, which has the potential for resulting in either a direct physical change in the environment, or a reasonably foreseeable indirect physical change in the environment" (14 CCR 15378[a]). State CEQA Guidelines (14 CCR 15064[d]) further define direct and indirect impacts:

(1) A direct physical change in the environment is a physical change in the environment which is caused by and immediately related to the project.

(2) An indirect physical change in the environment is a physical change in the environment which is not immediately related to the project, but which is caused indirectly by the project. If a direct physical change in the environment in turn causes another change in the environment, then the other change is an indirect physical change in the environment.

(3) An indirect physical change is to be considered only if that change is a reasonably foreseeable impact which may be caused by the project.

Archaeological Resources

In terms of archaeological resources, PRC Section 21083.2(g) defines a unique archaeological resource as an archaeological artifact, object, or site about which it can be clearly demonstrated that without merely adding to the current body of knowledge, there is a high probability that it meets any of the following criteria:

(1) Contains information needed to answer important scientific research questions and that there is a demonstrable public interest in that information.

(2) Has a special and particular quality such as being the oldest of its type or the best available example of its type.

(3) Is directly associated with a scientifically recognized important prehistoric or historic event or person.

If it can be demonstrated that a proposed project will cause damage to a unique archaeological resource, the lead agency may require that reasonable efforts be made to permit any or all of these resources to be preserved in place or left in an undisturbed state. To the extent that they cannot be left undisturbed, mitigation measures are required (PRC Section 21083.2[a], [b], and [c]). CEQA notes that, if an archaeological resource is neither a unique archaeological resource nor a historical resource, the effects of the project on those resources shall not be considered to be a significant effect on the environment (14 CCR 15064.5[c][4]).

California State Assembly Bill 52

Assembly Bill 52 of 2014 (AB 52) amended PRC Section 5097.94 and added PRC Sections 21073, 21074, 21080.3.1, 21080.3.2, 21082.3, 21083.09, 21084.2, and 21084.3.

CONSULTATION WITH NATIVE AMERICANS

AB 52 formalizes the lead agency–tribal consultation process, requiring the lead agency to initiate consultation with California Native American groups that are traditionally and culturally affiliated with the project, including Tribes that may not be federally recognized. Lead agencies are required to begin consultation prior to the release of a negative declaration, mitigated negative declaration, or environmental impact report.

TRIBAL CULTURAL RESOURCES

Section 4 of AB 52 adds Sections 21074(a) and (b) to the PRC, which address tribal cultural resources and cultural landscapes. Section 21074(a) defines tribal cultural resources as one of the following:

(1) Sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American tribe that are either of the following:

(A) Included or determined to be eligible for inclusion in the California Register of Historical Resources.

(B) Included in a local register of historical resources as defined in subdivision (k) of Section 5020.1.

(2) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Section 5024.1. In applying the criteria set forth in subdivision (c) of Section 5024.1 for the purposes of this paragraph, the lead agency shall consider the significance of the resource to a California Native American tribe.

Section 1(b)(9) of AB 52 establishes that "a substantial adverse change to a tribal cultural resource has a significant effect on the environment." Effects on tribal cultural resources should be considered under CEQA. Section 6 of AB 52 adds Section 21080.3.2 to the PRC, which states that parties may propose mitigation measures "capable of avoiding or substantially lessening potential significant impacts to a tribal cultural resource or alternatives that would avoid significant impacts to a tribal cultural resource" (Section 6[a]). Further, if a California Native American tribe requests consultation regarding project alternatives, mitigation measures, or significant effects on tribal cultural resources, the consultation shall include those topics (PRC Section 21080.3.2[a]). The environmental document and the mitigation monitoring and reporting program (where applicable) shall include any mitigation measures that are adopted (PRC Section 21082.3[a]).

California Register of Historical Resources

Created in 1992 and implemented in 1998, the CRHR is "an authoritative guide in California to be used by state and local agencies, private groups, and citizens to identify the state's historical resources and to indicate what properties are to be protected, to the extent prudent and feasible, from substantial adverse change" (PRC Sections 21083.2 and 21084.1). Certain properties, including those listed in or formally determined eligible for the NRHP and California Historical Landmarks numbered 770 and higher, are automatically included in the CRHR. Other properties recognized under the California Points of Historical Interest program, identified as significant in historical resources surveys, or designated by local landmarks programs, may be nominated for inclusion in the CRHR. According to PRC Section 5024.1(c), a resource, either an individual property or a contributor to a historic district, may be listed in the CRHR if the State Historical Resources Commission determines that it meets one or more of the following criteria, which are modeled on NRHP criteria:

- **Criterion 1:** It is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage.
- **Criterion 2:** It is associated with the lives of persons important in our past.
- **Criterion 3:** It embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values.

- **Criterion 4:** It has yielded, or may be likely to yield, information important in history or prehistory.

Resources nominated to the CRHR must retain enough of their historic character or appearance to convey the reasons for their significance. Resources whose historic integrity does not meet NRHP criteria may still be eligible for the CRHR.

Treatment of Human Remains

The disposition of burials falls first under the general prohibition on disturbing or removing human remains under California Health and Safety Code Section 7050.5. More specifically, remains suspected to be Native American are treated under CEQA in accordance with 14 CCR 15064.5, and PRC Section 5097.98 illustrates the process to be followed in the event that remains are discovered. If human remains are discovered during construction, no further disturbance to the site shall occur, and the county coroner must be notified (14 CCR 15064.5 and PRC Section 5097.98).

METHODS

In support of this analysis, SWCA completed a confidential records search of the CHRIS, an SLF search through the California NAHC, archival research, and an intensive pedestrian survey. The results of these were used to evaluate the presence or likelihood of cultural resources within the project area.

California Historical Resources Information System Records Search

On August 8, 2024, SWCA conducted a search of the CHRIS at the SCCIC on the campus of California State University, Fullerton. This search included previously recorded cultural resources and investigations within a 0.5-mile radius of the project area for archaeological resources. A subsequent search of the CHRIS data was conducted on March 12, 2025, which expanded the search radius from 0.5 mile to 1 mile. The CHRIS records search also included a review of the NRHP, the CRHR, California Points of Historical Interest list, the California Historical Landmarks list, the Archaeological Determinations of Eligibility list (Office of Historic Preservation Directory of Historic Properties Data File), the City's HCM list, and the California State Inventory of Historic Resources.

Sacred Lands File Search

The NAHC is charged with identifying, cataloging, and protecting Native American cultural resources, which includes ancient places of special religious or social significance to Native Americans, and known ancient graves and cemeteries of Native Americans on private and public lands in California.
The NAHC's inventory of these resources is known as the SLF. In addition, the NAHC maintains a list of tribal contacts affiliated with various geographic regions of California. The contents of the SLF are strictly confidential, and the SLF search requests return positive or negative results in addition to a list of tribal contacts with affiliation to the specified location. A letter from the NAHC summarizing the results of the records search is provided in Appendix B.

Archival Research

Concurrent with the confidential CHRIS records search, SWCA conducted a desktop review of available historic-age maps, aerial images, USGS quadrangles, and San Bernardino County Assessor records (2025). This archival research focused on assessing the general sequence of historic-age development within the project area and identifying any natural, built environment, or other resources that may have previously existed within the project area. The aerial images and maps were also used to assess the potential for previously unrecorded built environment or archaeological resources to be present within the project area. Sources consulted included the following publicly accessible data sources: USGS (2025) historical topographic maps; University of California, Santa Barbara Aerial Imagery Library (2025); and NETROnline Historical Aerials (2025) (historical topographic maps and aerial images).

Cultural Resources Survey

On March 13, 2025, SWCA Archaeologist Cecilio Garcia conducted an intensive pedestrian survey of the 2.54-acre project area (see Figure A-2). The purpose of the survey was to identify cultural resources and historical built environment resources that may be present within the project area. The intensive-level survey consisted of a systematic surface inspection of all areas using transects walked at 10- to 15-meter (m) (about 33- to 50-foot) intervals or less to ensure that any surface-exposed artifacts and sites could be identified.

SWCA examined the ground surface for the presence of prehistoric artifacts (e.g., flaked stone tools, tool-making debris, stone milling tools); historic-era artifacts (e.g., metal, glass, ceramics); sediment discoloration that might indicate the presence of a cultural midden; roads and trails; and depressions and other features that might indicate the former presence of structures or buildings (e.g., post holes, foundations).

Overviews of the survey area were photographed using a digital camera. Survey data collection, including mapping, was completed used a tablet computer (Samsung Galaxy Tab A) paired with a Juniper Geode submeter-accurate global navigation satellite system receiver. The survey was documented using standard archaeological survey forms. All field notes, photographs, and records related to the current study are on file at SWCA's office in Pasadena, California.

ENVIRONMENTAL SETTING

The project area is within the Victor Valley, a subregion along the southern edge of the larger Mojave Desert. The project area is on undeveloped land that supports scattered Joshua trees (*Yucca brevifolia*) with an herbaceous understory dominated by nonnative forbs and grasses. Disturbance on-site includes vegetation removal, trash piles, and unmaintained roads associated with off-road vehicle usage. Topographically, the setting is characterized as an open aspect plain with a very gradual slope to the south. The project area is at an elevation of approximately 1,030 to 1,035 m (3,380–3,396 feet) above mean sea level. The project area is near two washes: the Oro Grande Wash, a segment of the Upper Mojave River Basin that is 2.43 kilometers (km) (1.5 miles) to the northwest, and an unnamed wash located directly to the northwest of the project area. Both washes run in a meandering northwesterly-southeasterly direction. Notably, however, these two water sources are seasonal or dependent on heavy rains and are likely dry much of the year. A segment of the California Aqueduct also runs in northeasterly-southwesterly direction approximately 1.6 km (1 mile) to the southwest of the project area, and the Mojave River is located 10.62 km (6.6 miles) to the east of the project area. The soils within the site largely date to the Pleistocene (Tang et al. 2010:19)

HISTORIC CONTEXT

Prehistoric Context

The prehistory of Southern California is varied and rich, encompassing a period of more than 12,000 years. Numerous chronological sequences have been devised to explicate cultural changes for various areas within southern California over the past 75 years (Moratto 2004). This prehistoric overview is structured using the latest Mojave Desert culture history (Sutton et al. 2007). The framework is thus divided into four major periods: Pleistocene, Early Holocene, Middle Holocene, and Late Holocene (Table 1).

Table 1. Mojave Desert Chronology

Temporal Period	Cultural Complex or Period	Approximate Dates	Marker Artifact
Pleistocene	Pre-Clovis (hypothetical)	Pre-10,000 B.C.	Unclear
	Paleoindian	10,000–8000 B.C.	Fluted points (Clovis)
Early Holocene	Lake Mojave	8000–6000 B.C.	Stemmed points (Lake Mojave, Silver Lake)
Middle Holocene	Pinto	7000–3000 B.C.	Pinto Series points
Late Holocene	Gypsum	2000 B.C.–A.D. 200	Gypsum and Elko Series points
	Rose Spring	A.D. 200–1100	Rose Spring and Eastgate Series points
	Late Prehistoric	A.D. 1100–contact	Desert Series points, ceramics

Note: Based on Sutton et al. (2007:236).

Paleoindian Period (ca. 10,000–8000 B.C.)

A firm date for the initial human occupation of the Mojave Desert has not yet been established. While there have been several controversial claims of Pleistocene-age (pre-Clovis) finds, such as the Early Man Site of Calico Hills (Leakey et al. 1968; Leakey et al. 1972), most archaeologists remain unconvinced by available Mojave Desert data. The growing acceptance of evidence for pre-Clovis occupations elsewhere in the Western Hemisphere suggests the possibility that such evidence may yet be found in this region as well.

The earliest broadly accepted cultural complex in the Mojave Desert is the Clovis Complex (Sutton et al. 2007:233). The hallmark artifacts of this complex are large lanceolate-shaped bifaces with distinctive fluting, used to thin and flatten the base for hafting. Other tools associated with the Clovis Complex were large side scrapers, blades struck from prepared cores, and a mixture of expedient flaked tools (Justice 2002:73). Paleoindian populations associated with fluted point technology consisted of small, mobile groups who hunted and gathered near permanent sources of water such as pluvial lakes.

There is some doubt as to whether the Clovis Complex had a temporally or geographically extensive presence in the Mojave Desert. Fluted points have traditionally been interpreted as tools used for hunting Pleistocene megafauna due to their clear association with megafauna remains in the American Southwest, but most fluted points found in California have been recovered as isolated surface finds without confirmed Pleistocene radiocarbon dates (Arnold 2004). However, excavations at China Lake during the 1970s uncovered fluted points associated with burned, extinct megafaunal material (Davis 1975). These

discoveries are among the more convincing evidence that suggests there was human occupation during the terminal Pleistocene (Giambastiani and Berg 2008:12).

The Early Holocene (8000–6000 B.C.)

The communities that lived in the Mojave Desert witnessed and were profoundly affected by great environmental changes during the gradual Pleistocene-Holocene transition. Temperatures became warmer but remained cooler and moister than today. The Mojave Desert became marked by shallow lakes and marshes that were biologically very productive. These were surrounded by desert vegetation typical of later time periods, most prominent being the white bursage and later the creosote bush (Grayson 1993:199–200). Some low-elevation locales retained maintained juniper and sagebrush habitats. By the early Holocene, warmer temperatures, reduced precipitation, and the eventual dehydration of the pluvial lakes are believed to have led to irregularities in the distribution and abundance of resources (Sutton et al. 2007:237). These climatic changes created the need for a more diversified subsistence strategy; the archaeological pattern associated with this adaptation is known as the Lake Mojave Complex.

Named for a Pleistocene lake in southern California, the Lake Mojave Complex is recognized by the heavy, stemmed projectile points of the Great Basin Stemmed series such as Lake Mojave and Silver Lake. Other tools include bifaces, steep-edged unifaces, crescents, the occasional cobble-core tool, and, rarely, ground stone implements (Justice 2002:91). This tool kit represents a generalized adaptation to highly variable terrain. For example, the crescent is thought to have served multiple functions, including use as a spear tip to hunt waterfowl (Justice 2002:116).

While the tool kit of the Lake Mojave Complex has long been thought of as an adaptation to lacustrine subsistence strategies, this conclusion was based on largely circumstantial evidence: the occurrence of numerous sites along extinct shorelines (Moratto 2004:93–96). However, many of the lakes were no longer constant sources of water during the Holocene, and an increasing number of recent studies (e.g., Basgall 2005; Basgall and Jurich 2006; Giambastiani and Berg 2008:14), have revealed that the people of the Lake Mojave Complex sites occur in non-lacustrine terrain as well. Furthermore, there is no clear evidence that Lake Mojave technology indicates a focus on aquatic resources (Basgall and Jurich 2006:12). Sutton et al. (2007:237) have noted that the Lake Mojave assemblages included tools that are "consistent with long-term curation and transport." Additionally, it is not uncommon for extralocal materials, such as stone artifacts and marine shell beads, to be found in Lake Mojave cultural deposits, suggesting that Lake Mojave people were either highly mobile or interacted with groups over long distances.

The changing climate, distribution of occupational sites, and the all-terrain tool kit suggest that the inhabitants of the Mojave Desert during the early Holocene developed a broad-ranging subsistence strategy based on patterns of "intensive environmental monitoring" (Sutton et al. 2007:237): the people monitored the seasons and moved in the direction of known resource patches.

The Middle Holocene (7000–3000 B.C.)

The middle Holocene climate, although more arid than periods before and after, was still highly variable, with multiple oscillations between wetter and drier conditions occurring throughout. In addition, although the lakes and marshes of the early Holocene dried up, streams and springs in the Mojave Desert may have still maintained water flow from nearby ranges, at various times and places, providing suitable water sources to sustain human activity, albeit at low densities (Aikens 1978; Basgall 2000; Cleland and Spaulding 1992; Sutton 1996; Warren 1984). Between 7000 and 5000 B.C., temperatures appear to have risen and aridity appears to have increased, peaking between 6000 and 5000 B.C. Lowland ephemeral lakes and streams began to dry up, and vegetation communities capable of supporting large game animals

became limited to a few isolated contexts. Settlement patterns adapted, shifting to upland settings where sources of water still existed (Sutton 1996). This land-use change also correlated with adjustments in tool assemblage content and diversity, resulting in the emergence of the Pinto Complex.

Originally defined by Campbell and Campbell (1935), the Pinto Complex appears to represent shifts in subsistence patterns and adaptations, with greater emphasis placed on the exploitation of plants, as well as a continued focus on artiodactyls and smaller animals. It had a wider distribution throughout the Mojave Desert than the previous complexes. The pan-desert nature of the complex suggests that it represents a settlement system with a high degree of residential mobility.

The distinctive characteristics of the Pinto Complex tool kit, as defined by Justice (2002:126) and Zyniecki (2003:12), include "indented base and bifurcate base projectile points with robust basal ears and weak shoulders." Other diagnostic artifacts types of this complex include large and small leaf-shaped bifaces, domed and heavy-keeled scrapers, numerous core/cobble tools, large metates and milling slabs, and shaped and unshaped handstones.

Basgall hypothesized the existence of a distinct complex occupying the Mojave Desert at the same time as the Pinto Complex. His hypothesized Deadman Lake Complex is characterized by "small-to-medium-size contracting-stemmed or lozenge-shaped points, extensive concentrations of battered cobbles and core tools, abundant bifaces, simple flake tools, and milling implements" (Sutton et al. 2007:239). Basgall and his coauthors speculate that the complexes coexisted, with the Pinto materials associated with pluvial lakes and the Deadman Lake Complex at higher elevations. These complexes may represent the material evidence of two separately adapted groups; alternatively they may indicate two different activity patterns produced by a single group. However, they acknowledge that the sample of known sites containing Deadman Lake assemblages is extremely small, and any characterization of the complex as a distinct cultural system is provisional at best. It is still unclear whether Pinto and Deadman Lake complexes represent the material evidence of two separately adapted groups, or of two different activity patterns produced by a single group.

Near the end of the Middle Holocene the climate became hotter and drier, marked by a period of "cultural hiatus" between 3000 and 2000 B.C.; during this gap there appears to have been little to no human occupation in much of the Mojave (Sutton et al. 2007:241).

The Late Holocene (2000 B.C.–contact)

The climate of the prehistoric Late Holocene approximates that of today, with cooler and moister conditions than the middle Holocene but not as cool and moist as the early Holocene. As with the middle Holocene, the climate was highly variable. Many lakes once again rose to high stands, and plant communities took on their modern distribution; however, these lake levels fluctuated, at times dramatically, throughout the period. At least two major droughts are thought to have occurred within the Sierras (Stine 1994), at ca. A.D. 892 to 1112, and ca. A.D. 1209 to 1350. This was followed by a cooler and wetter period between 600 and 150 years ago (Cleland and Spaulding 1992:4). People returned to the region, and human subsistence strategies, compared to previous settlement behavior, changed significantly. This subsistence strategy correlated with adjustments in artifact/tool assemblage content and diversity, resulting in the emergence of the Gypsum Complex.

The Gypsum Complex was characterized by dart-point size projectile points in notched or eared (Elko), concave base (Humboldt), and small-stemmed (Gypsum) forms. In addition to diagnostic projectile points, Gypsum Complex sites included leaf-shaped points, rectangular-based knives, flake scrapers, T-shaped drills, and, occasionally, large scraper planes, choppers, and hammerstones (Warren 1984:416). Manos and milling stones were common, and the mortar and pestle were also introduced during this

period. Other artifacts included split-twig animal figurines, *Olivella* shell beads, and *Haliotis* beads and ornaments. The presence of both *Haliotis* and *Olivella* shell beads and ornaments and split-twig animal figurines indicates that the California desert inhabitants were in contact with populations from the southern California coast and the southern Great Basin (Arizona, Nevada, and Utah). The increased contact with other groups likely provided the local inhabitants with storable food products in exchange for lithic materials (obsidian, chalcedony, and chert).

By A.D. 200, the climate had become slightly cooler. Population size appears to have increased, as evidenced by a higher frequency of archaeological sites. This period in California prehistory is marked by the Rose Spring Complex, an archaeological pattern associated with a time frame known as the Saratoga Springs, Haiwee, or Amargosa period, depending on region (Sutton 1996; Sutton et al. 2007:236). By the onset of this period at A.D. 200, dart-size points were being replaced with smaller Rose Spring projectile points, signaling the introduction of the bow and arrow (Yohe 1998). This innovation may also correspond with the beginning of the Numic expansion, which many researchers believe emanated from southeastern California (Bettinger and Baumhoff 1982; Grayson 1993). Major villages and numerous smaller sites dating to this period have been recorded in eastern California, many of which contain bedrock milling features in addition to portable milling equipment.

The introduction of ceramics to the archaeological record of the Mojave Desert region marks the beginning of the Late Prehistoric period (ca. A.D. 1100–1770). During this period Rose Spring-style projectile points were replaced with smaller Desert Side-notched and Cottonwood Series points. Resource intensification and specialization are suggested by an increased variety of tool forms, use of new technologies such as the mortar and pestle and ceramics, use of storage facilities, and increased diversity in the locations of archaeological sites. In the central Mojave Desert, the Mojave River became a primary focus of occupation, and trade networks increased along the Mojave River and over the San Gabriel Mountains (Sutton 1996). During the early portions of the Late Prehistoric period, the Colorado River intermittently flowed westward into the Salton Trough, forming Lake Cahuilla. This freshwater lake was more than 100 miles long and extended well into the present-day Coachella Valley before its final recession after A.D. 1400. Archaeological remains recovered from the extinct lakeshore, as well as Cahuilla oral history, reflect the fish, mussels, waterfowl, and other lacustrine resources that made up local subsistence regimes during this period. There is evidence that populations relocated to new residential bases in the Peninsular Range foothills, including the Little San Bernardino Mountains immediately south of the project area, following the final recession of Lake Cahuilla (Wilke 1978).

Generally speaking, archaeological evidence left by highly mobile hunter-gatherers in the Mojave Desert most often takes the form of sparse scatters of flaked stone, ground stone, and ceramic artifacts and features such as hearths, rock rings, and trails. These remains represent resource extraction and processing sites as well as short-term encampments. Repeated use of specific locations may result in more diverse and substantial archaeological deposits. Likely locations for such habitual-use areas are places with predictable critical resources, especially water, tree crops (e.g., piñon), and outcrops of stone suitable for tool manufacture.

Ethnographic Context

According to available ethnographic maps (Bean and Smith 1978:570; Kroeber 1925; Sutton et al. 2007:232), the study area falls within the traditional territory of the Serrano people, south of the Kawaiisu, southeast of the Kitanemuk, and west of the Southern Paiute. Other neighboring Takic-speaking groups include the Tataviam and Gabrielino (or *Tongva*) to the west and southwest and the Cahuilla to the south. Ethnographic boundaries in the Mojave Desert are loosely defined, owing to the highly mobile nature of desert settlement strategies and the variety of alternatives presented by previous researchers.

Serrano

The Serrano language is part of the Serran division of a branch of the Takic family of the Uto-Aztecan linguistic stock (Mithun 2006:539, 543). The two Serran languages, Kitanemuk and Serrano, are closely related. Kitanemuk lands were northwest of Serrano lands. Serrano was originally spoken by a relatively small group within the Sierra Madre and San Bernardino Mountains, and the term "Serrano" has come to be ethnically defined as the name of the people in the San Bernardino Mountains (Kroeber 1925:611). The Vanyume, who lived along the Mojave River and associated Mojave Desert areas, and are also referred to as the Desert Serrano, spoke either a dialect of Serrano or a closely related language (Mithun 2006:543).

The Serrano occupied an area in and around the San Bernardino Mountains between approximately 1,500 and 11,000 feet (450–3,350 m) above mean sea level. Their territory extended west into the Cajon Pass, east past Twentynine Palms, north past Victorville, and south to Yucaipa Valley. Year-round habitation tended to be on the desert floor, at the base of the mountains, and up into the foothills, with all habitation areas requiring year-round water sources (Bean and Smith 1978; Kroeber 1908).

Most Serrano lived in small villages located near water sources (Bean and Smith 1978:571). Houses measuring 12 to 14 feet in diameter were domed and constructed of willow branches and tule thatching. The interiors were encircled with tule mats. Each house was occupied by a single extended family, including a husband, wife (or wives), children, grandparents, and perhaps a widowed aunt or uncle, and was a family gathering place for sleeping and storage. Much of the daily routine occurred outdoors in the open or under square ramadas constructed of at least four posts, cross beams, and tule-thatched roofs. Many of the villages had a ceremonial house, used both as a religious center and the residence of the lineage leaders. When hunting, the men would sometimes construct individual dwellings away from the village. Additional structures within a village might include granaries and a large circular subterranean sweathouse. The sweathouses were typically built along streams or pools.

A village was usually composed of at least two lineages, referred to as a lineage set. In each village, one lineage tended to be more dominant than the other. Lineages tended to rise and fall in dominance. A lineage set would intermarry, share ties of economic reciprocity, and share the ceremonial house and ceremonial bundle. Lineage sets together assumed the responsibility of conducting religious ceremonies through the one lineage's religious leader and the leader's assistant; the assistant was the religious leader of the other lineage of the set. The Serrano were loosely organized along patrilineal lines and associated themselves with one of two exogamous moieties or "clans"—the Wahiyam (coyote) or the Tukum (wildcat) moiety.

Serrano territory was a trade nexus between inland tribes and coastal tribes. Ethnohistory also suggests that the Serrano played a role in the trade of horses from the southwest to the California coast (Bean and Vane 2002). Despite the Serrano's large geographic extent, as well as their control of significant travel corridors, some anthropologists consider the politically autonomous structure and function of the village unit and therefore have difficulty considering the Serrano a unified "tribe," as that word is defined as a unit of people with a common political leadership (Kroeber 1925:617; Strong 1929:14).

The subsistence economy of the Serrano was one of hunting and collecting plant goods, with occasional fishing carried out (Bean and Smith 1978:571). They hunted large and small animals, including mountain sheep, deer, antelope, rabbits, small rodents, and various birds, particularly quail. Plant staples consisted of seeds; acorn nuts of the black oak; piñon nuts; bulbs and tubers; and shoots, blooms, and roots of various plants, including yucca, berries, barrel cacti, and mesquite. The Serrano used fire as a management tool to increase yields of specific plants, particularly chía.

Trade and exchange was an important aspect of the Serrano economy. Those living in the lower-elevation, desert floor villages traded foodstuffs with people living in the foothill villages who had access to a different variety of edible resources. In addition to inter-village trade, ritualized communal food procurement events, such as rabbit and deer hunts and piñon, acorn, and mesquite nut-gathering events, integrated the economy and helped distribute resources that were available in different ecozones.

Among the materials that the Serrano used for hunting, gathering, and processing food, many were also used for shelter, clothing, and ceremonial items. Shell, wood, bone, horn, stone, plant materials, animal skins, and feathers were used for making money, baskets, rabbit skin blankets, mats, nets, and bags. The Serrano made pottery and used it daily to carry and store water or foodstuffs; ceramics were also used as ceremonial objects (Benedict 1924). They also made awls, sinew-backed bows, arrows, arrow straighteners, throwing sticks (for hunting), traps, fire drills, stone pipes, musical instruments of various types (rattles, rasps, whistles, bull-roarers, and whistles), yucca fiber cordage for snares, nets, and carrying bags, and clothing (Bean and Smith 1978:571; Bean and Vane 2002). A strong tradition of basket weaving incorporated the use of juncus sedge, deergrass, and yucca fiber (Benedict 1924). They cooked foods in earth ovens or in watertight baskets using heated cooking rocks and stirring constantly, or by parching through the use of hot embers and a constant tossing motion of shallow trays containing the grains. Animal bones were boiled and then cracked for access to the marrow. A variety of methods were used in drying and preserving foods for later consumption.

Mainly due to the inland location of the territory that the Serrano occupied beyond Cajon Pass, contact between Serrano and Europeans was relatively minimal prior to the early 1800s. As early as 1790, however, Serrano began to be drawn into mission life (Bean and Vane 2002). More Serrano were relocated to Mission San Gabriel in 1811 after a failed indigenous attack on that mission. Most of the remaining western Serrano were moved to an *asistencia* built near Redlands in 1819 (Bean and Smith 1978:573). By 1834, most western Serrano had been moved to the missions, with some Serrano possibly moved to the mission at San Fernando Rey (Kroeber 1908). Only small groups of Serrano remained in the area northeast of the San Gorgonio Pass and were able to preserve some of their native culture.

In the 1860s, a smallpox epidemic killed many indigenous Southern Californians, including many Serrano (Bean and Vane 2002). Oral history accounts of a massacre in the 1860s at Twentynine Palms may have been part of a larger American military campaign that lasted 32 days (Bean and Vane 2002:10). Surviving Serrano sought shelter at Morongo with their Cahuilla neighbors; Morongo later became a reservation (Bean and Vane 2002). Other survivors followed the Serrano leader Santos Manuel down from the mountains and toward the valley floors and eventually settled what later became the San Manuel Band of Mission Indians Reservation. This reservation was established in 1891 (San Manuel Band of Mission Indians 2008).

Historic Context

Post-contact history for the state of California is generally divided into three periods: the Spanish period (1769–1822), Mexican period (1822–1848), and American period (1848–present). Although there were brief visits by Spanish, Russian, and British explorers from 1529 to 1769, the Spanish period in California began with the establishment in 1769 of a settlement at San Diego and the first (Mission San Diego de Alcalá) of 21 missions constructed between 1769 and 1823. Independence from Spain marks the beginning of the Mexican period, and the signing of the Treaty of Guadalupe Hidalgo in 1848, ending the Mexican-American War, signals the beginning of the American period, when California became a territory of the United States.

Spanish Period (1769–1822)

Spanish explorers made sailing expeditions along the coast of southern California between the mid-1500s and late 1700s. In search of the legendary Northwest Passage, Juan Rodríquez Cabrillo stopped in 1542 at present-day San Diego Bay. With his crew, Cabrillo explored the shorelines of present-day Catalina Island, and the San Pedro and Santa Monica bays. Much of the present California and Oregon coastline was mapped and recorded in the following half-century by Spanish naval officer Sebastián Vizcaíno. Vizcaíno's crew also landed on Santa Catalina Island and at San Pedro and Santa Monica bays, giving each location its long-standing name. The Spanish crown laid claim to California based on the surveys conducted by Cabrillo and Vizcaíno (Bancroft 1886:96–99; Gumprecht 1999:35).

Inland exploration and colonization of Alta California by Spain would not be a priority for more than 200 years. The 1769 overland expedition by Captain Gaspar de Portolà marks the beginning of California's "Historic Period," occurring just after the king of Spain installed the Franciscan Order to direct religious and colonization matters in assigned territories of the Americas. With a band of 64 soldiers, missionaries, Baja (lower) California Native Americans, and Mexican civilians, Portolà established the Presidio of San Diego, a fortified military outpost, as the first Spanish settlement in Alta California. Also in July of 1769, Franciscan Fr. Junípero Serra founded Mission San Diego de Alcalá at Presidio Hill, the first of the 21 missions that would be established in Alta California by the Spanish and the Franciscan Order between 1769 and 1823.

Although Pedro Fages traveled near the Cajon Pass as early as 1772, the first known Spanish explorer to enter the area that would become San Bernardino County was Fr. Francisco Garcés, traveling from the Colorado River in 1776 (Hoover et al. 2002:321). Fr. Garcés traveled as far as the Pacific Coast along an ancient trade route, known as the Mojave Trail, and he named the Mojave River Arroyo de los Mártires (Stream of the Martyrs). The river was later named Rio de las Animas (River of Souls) by Fr. Joaquín Pasqual Nuez, who accompanied the 1819 expedition of Lt. Gabriel Moraga. The San Bernardino Valley was named in 1810 by the Franciscan missionary Francisco Dumetz, who led a party from the San Gabriel Mission into the valley in observance of the Feast of St. Bernardine of Siena.

The series of 21 missions was parallel to the California coastline between San Diego and Sonoma. Near-coastal locations were preferred by the Spaniards for colonization because they were easier to defend and supply from ships and were also bordered by populous Native American villages with potential converts. Although present-day San Bernardino County did not formally host Spanish missions, the region remained connected to the California presidio and mission system through the Franciscan rancho and *asistencia* outposts. Near today's city of Redlands in San Bernardino County, the San Bernardino de Sena Estancia (also known as the San Bernardino Rancho) was established in 1819 for grazing cattle owned by the Mission San Gabriel Arcángel (Engelhardt 1927).

A major government objective during the Spanish period in California was to build missions and associated presidios to integrate the Native American population into Christianity and communal enterprise. Inducements were also made to bring settlers to pueblos or towns, but just three pueblos were established during the Spanish period, only two of which were successful and are now major California cities (San José and Los Angeles). The threat of foreign invasion, political dissatisfaction, demands for land by civilian settlers and retiring soldiers, and unrest among the indigenous population kept growth within Alta California to a minimum.

Mexican Period (1822–1848)

After more than a decade of intermittent rebellion and warfare, New Spain (Mexico and the California territory) won independence from Spain in 1821. In 1822, the Mexican legislative body in California

ended isolationist policies designed to protect the Spanish monopoly on trade, and decreed California ports, including San Diego, open to foreign merchants (Dallas 1955:14).

During this period, trappers and explorers from the eastern United States journeyed westward. Jedediah Strong Smith was among these early American adventurers. He traveled through the project vicinity in 1826 and 1827 and nicknamed the Mojave River the "Inconstant River" because it frequently disappeared beneath the ground's surface.

The influence of the California missions waned in the late 1820s through the early 1830s, and as one consequence, extensive land grants in the interior were initiated in the Mexican period, in part to entice populations away from the more settled coastal areas where the Spanish had concentrated their colonization efforts. Following the adoption of the Secularization Act of 1833, the Mexican government privatized most Franciscan lands, including holdings of their California missions. By 1836, this sweeping process effectively reduced the California missions to parish churches and released their vast landholdings. Although earlier secularization schemes had called for the redistribution of lands to Native American neophytes who were responsible for construction of the mission empire, the vast mission lands and livestock holdings were instead redistributed by the Mexican government through several hundred land grants to private, non–Native American ranchers (Langum 1987:15–18).

The Mexican period is marked by the rise of large ranchos, which became important economic and social centers. Some 20 ranchos covering nearly 500,000 acres were granted in northwestern Riverside and southwestern San Bernardino Counties. These included Ranchos El Rincón and Jurupa, which straddled both of today's counties; and Cucamonga, Santa Ana, and San Bernardino in San Bernardino County.

During the supremacy of the ranchos (1834–1848), landowners largely focused on the cattle industry and devoted large tracts to grazing. Cattle hides became a primary southern California export, providing a commodity to trade for goods from the east and other areas in the United States and Mexico.
The non-Native American population of California increased during this period because of the influx of explorers, trappers, and ranchers associated with the land grants. The rising California population unfortunately contributed to the introduction and rise of diseases foreign to the Native American population, who had no associated immunities. Large numbers of native peoples in the Central Valley, for example, died of disease between 1830 and 1833, and disease exterminated whole tribes along the American, Merced, Tuolumne, and Yuba Rivers. The Central Valley was hit by a second epidemic in 1837, which further reduced indigenous Californian populations (Cook 1955).

American Period (1848–Present)

The Mexican-American War ended with the Treaty of Guadalupe Hidalgo, signed in 1848, ushering California into its American period. Horticulture and livestock, based primarily on cattle as the currency and staple of the rancho system, continued to dominate the Southern California economy through the first decade of the Gold Rush beginning in 1848. California attained statehood with the Compromise of 1850, which also designated Utah and New Mexico (with present-day Arizona) as U.S. territories. San Bernardino County was organized from parts of Los Angeles and San Diego Counties in April of 1853, and the city of San Bernardino became the county seat in 1854. Although portions of San Bernardino and San Diego Counties were used to create Riverside County in 1893, San Bernardino County remains the largest county in California.

During the Gold Rush, thousands of people traveled the Gila Trail or Southern Overland Trail from Texas to Arizona, then crossed the Colorado River at present-day Yuma into California and proceeded across the Colorado Desert to the San José Valley. The main trail continued from that point northward to Temecula and Los Angeles. Many left the main trail and traveled southward to San Diego, where they

then journeyed via ship to San Francisco or took the inland coastal route to Los Angeles, rejoining the main trail to the goldfields. Thousands more traveled the Mojave River Trail, named the Old Spanish Trail by Captain John C. Frémont in 1844. Starting in Santa Fe, New Mexico, and continuing through Utah and Arizona, the trail then crossed the Mojave Desert to reach the Mission San Gabriel Arcángel and the Pueblo de Los Ángeles. Northeast of Victorville near today's community of Daggett, a group of Native Americans told Frémont they had lived along the Mojave River and the mountains to the north, and traded with other indigenous peoples in the region along the Mojave River Trail. Frémont's is the first account to use the name "Mojave River" (Frémont 1845:260).

With the influx of people seeking gold, cattle were no longer desired mainly for their hides but also as a source of meat and other goods. During the 1850s cattle boom, vaqueros drove large herds from Southern to Northern California to feed that region's burgeoning mining and commercial boom. Cattle were at first driven along major trails or roads such as the Gila Trail or Southern Overland Trail, then were transported by trains where available. The cattle boom ended for Southern California as neighboring states and territories drove herds to Northern California at reduced prices, as operation of the huge ranchos became increasingly difficult, and droughts severely reduced their productivity.

American politics and the need for a mild winter route to the west favored a southerly thoroughfare from the eastern United States to California in the 1850s. The U.S. Gadsden Purchase of 1854 secured more land from Mexico for this route, and by 1857, surveys established the current international boundary from New Mexico west to California (Walker and Bufkin 1986). In 1857, the government awarded to James E. Birch a mail contract for 1,475 miles from San Antonio, Texas, to San Diego, California. The contractor's "Jackass Mail" passed through the Imperial Valley on its 2-month-long round trips. In 1858, the federal contract passed to the Butterfield Overland Mail Company. With the start of the Civil War in 1861 and the departure of southern representatives from Congress, the U.S. government canceled Butterfield's contract and suspended talks on a southern transcontinental rail route.

Wagon roads and railroads constructed across California's Colorado and Mojave deserts from the 1840s to the 1870s connected coastal California with the rest of the county. These modes of transport served to carry mail, prospectors, miners, entrepreneurs, merchants, immigrants, laborers, muleteers, settlers, and military personnel as well as civilian and military supplies, livestock, produce, timber, and minerals produced by desert mines, among other necessities. The construction of permanent roadways in the place of desert trails and wagon roads marked the increased use of the automobile at the turn of the twentieth century. In addition to the Mojave River Trail (Old Spanish Trail) and the southern Yuma route (Gila Trail, Southern Overland Trail, Butterfield Stage Route), the earliest routes that traversed the California deserts from the west to the Colorado River included Brown's Wagon Road, the Bradshaw Trail, and Brown and Frink's Road.

Following the Civil War, overland stage services to and from Southern California resumed in 1868 with the Holladay and Wells Fargo operations (Nevin 1974; Stein 1994). The pre-Civil War national initiative for a southern transcontinental railroad route resumed during the 1870s, as the Texas and Pacific (T&P) Railway Company in 1871 received a federal charter and conducted transcontinental surveys to pursue the initiative. In 1873, however, the T&P's westerly construction stalled in north-central Texas. The resulting delay was critical, allowing San Francisco investors to extend their own Southern Pacific Railroad through Imperial Valley to the Colorado River in 1877, bridging the river at Yuma into Arizona along the T&P survey in 1878 (Yenne 1985). The Southern Pacific Railroad had already reached the extreme southwest corner of San Bernardino County in 1876. The Atlantic and Pacific (later the Atchison, Topeka, and Santa Fe; now the Burlington Northern Santa Fe) Railroad soon crossed the central part of the county, the Southern California Railway linked Barstow to San Diego in 1885, and San Bernardino was connected to the eastern states in 1887 via the Atchison, Topeka, and Santa Fe via Barstow and Needles.

The first highways across the Mojave Desert followed the Cajon Pass-Barstow-Needles route established by the Southern California Railway and the Atchison, Topeka, and Santa Fe. Established in 1912, the Ocean-to-Ocean Highway, now known as the National Old Trails Road, stretched from Baltimore, Maryland, to California. The route across the California deserts followed the Mojave River/Old Spanish Trail through Needles and Barstow to San Bernardino. Established in 1926, the majority of U.S. Route 66 largely followed the Ocean-to-Ocean Highway, passing through the desert region south of Needles on its way across the country to Los Angeles. After U.S. Route 66 was decommissioned in 1985, parts of it became Interstate 40 as well as Interstate 15. Remains of the route in several western states, including California, have been designated a National Trails Highway. Other important highways that crossed through the region included the Randsburg/San Bernardino Road, which was added to the state system of secondary highways in 1933 and designated State Route 145. Two years later, the highway was designated U.S. Route 395.

RESULTS

Records Search Results

Previously Conducted Studies

SWCA conducted a search of the CHRIS records from the SCCIC on March 12, 2025. Results of the records search indicate that 23 previous cultural resource investigations have been conducted within a 1-mile radius of the project area. None of these studies includes any portion of the current project area. Details pertaining to these investigations are listed in Table 2.

Table 2. Previous Cultural Resources Studies within 1 mile of the Project Area

Report No.	Study Title	Author and Affiliation	Year	Relationship to Project Area
SB-01025	Archaeological, Historical, and Paleontological Site Survey for County Service Area No. 70 Improvement Zone "J", Assessments of Impact and Recommendations	Harris, Ruth: San Bernardino County Museum Association	1973	Outside
SB-01026	Archaeological, Historical and Paleontological Site Survey for County Service Area No. 70, Improvement Zone "J", Assessments of Impact and Recommendations	Harris, Ruth: San Bernardino County Museum Association	1980	Outside
SB-01027	Cultural Resources Assessment: Baldy Mesa Water Lines, County Service Area 70, Improvement Zone J, San Bernardino County, California	Reynolds, Robert E.: San Bernardino County Museum Association	1973	Outside
SB-02150	An Archaeological Assessment of TT14591, a 7.57-Acre Parcel Located Adjacent to Maple Avenue in Hesperia, San Bernardino County	White, Robert S.: Archaeological Associates	1974	Outside
SB-02314	An Archaeological Assessment of a 9.23-Acre Parcel Located Immediately Northeast of the Intersection of Main Street and Topaz Avenue in Hesperia, San Bernardino County	White, Robert S.: Archaeological Associates	1980	Outside
SB-03020	(Draft) Adelanto-Lugo Transmission Project Cultural Resources Assessment	Sturm, Brad, D. Mclean, K. Becker, And J. Rosenthal: Woodward-Clyde	1991	Outside
SB-03703	An Historical Resource Identification Investigation For TTM 16252, City of Hesperia, California	Alexandrowicz, J. Stephen And Barbara Loren-Webb: ACS	1991	Outside

Report No.	Study Title	Author and Affiliation	Year	Relationship to Project Area
SB-03983	Cultural Resource Assessment: Cingular Wireless Facility SB 258-01, Hesperia, San Bernardino County, California	Duke, Curt: LSA	1993	Outside
SB-04182	Historical and Paleontological Resources Monitoring at the Forecast Homes Tract 16252 Development, City of Hesperia, San Bernardino County, California	Alexandrowicz, John Stephen And Richard A. Krautkramer: ACS	1993	Outside
SB-04190	Cultural Resource Assessment: TPN 16886, City of Hesperia, San Bernardino County, California	Goodwin, Riordan And Pattie Tuck: LSA	2005	Outside
SB-04192	Historical Archaeology at the Hall W. Watts Homestead	Alexandrowicz, John Stephen: ACS	2006	Outside
SB-04193	Historical & Paleontological Resources Monitoring at the Forecast Homes Tract No. 16252 Development, City of Hesperia, San Bernardino County, California	Alexandrowicz, John Stephen: ACS	2006	Outside
SB-04790	Historical/ Archaeological Resources Survey Report: Tentative Tract Map No. 17916, in the City of Hesperia, County of San Bernardino, California	Jacquemain, Terri, Hruby, Zachary X., And Josh Smallwood: Unknown	2005	Outside
SB-05216	Results of a Phase 1 Cultural Resources Investigation for the Proposed Wal-Mart Supercenter Approximately 38 Acres in the City of Hesperia, San Bernardino County, California	Mckenna, Jeanette: Unknown	2006	Outside
SB-05221	SHPO Cover Letter FCC Form 620 Submittal Earthtouch Inc West Hesperia/CA-5357A Hesperia, San Bernardino County, California	Billat, Lorna: Unknown	2005	Outside
SB-06537	Archaeological Survey Report for Southern California Edison's Existing Pole Support Project: Victor-Aqueduct-Phelan 115kV Transmission Line, Hesperia, San Bernardino County, California	Sander, Jay K.: Chambers Group, Inc.	2010	Outside
SB-06652	Preliminary Archaeological Survey Report for 98 Linear Miles of the East Branch Extension of the California Aqueduct for the DWR East Branch Enlargement Project Los Angeles and San Bernardino Counties (California)	ESA: Unknown	2010	Outside
SB-06858	Cultural Resources Study: Main Street Corridor Project, City of Hesperia, San Bernardino County, California	Smallwood, Josh: Ecorp	2010	Outside
SB-06859	Identification and Evaluation of Historic Properties: Town of Apple Valley and City of Hesperia Wastewater Reclamation Plants and Related Facilities Project, Victor Valley Area, San Bernardino County, California	Tang, Bai "Tom", Terri Jacquemain, Daniel Ballester, and Harry Quinn: Unknown	2011	Outside
SB-07494	G.O. 131-D Victor-Aqueduct-Phelan 115kV Replacement Project	Clark, Fatima V. and Dave Hanna: Southern California Edison	2011	Outside
SB-07845	Cultural Resource Records Search and Site Visit Results for T-Mobile West, LLC, Candidate IE24883A (IE883 M5-T2 Lugo SCE), 9950 Pyrite Avenue, Hesperia, San Bernardino County, California	Bonner, Wayne H., Sarah A. Williams, and Kathleen A. Crawford: EAS	2012	Outside
SB-07846	Direct APE Historic Architectural Assessment for T-Mobile West, LLC, Candidate IE24883A (IE883 M5-T2 Lugo SCE), 9950 Pyrite Avenue, Hesperia, San Bernardino County, California	Crawford, Kathleen A.: EAS	2012	Outside
SB-08480	Cultural Resources Assessment (Phase 1) (APN 0438-165-33) Apple Valley, California	Gold, Alan Garfinkel: RCA Associates, Inc.	2013	Outside

Previously Recorded Resources

The records search also identified 25 previously recorded cultural resources within a 1-mile radius of the project area. These resources are all historic in age and include 15 refuse scatters, two transmission lines, two roads/trails, three historic-era isolates, and three built environment resources (two buildings and a segment of the East Branch of the California Aqueduct). None of these resources overlap the project area. The results are summarized in Table 3.

Table 3. Previously Recorded Cultural Resources within 1 mile of the Project Area

Primary No. (Trinomial)	Temporal Affiliation	Resource Type	Resource Description	Year Recorded (Recorded By)	Relationship to Project Area
P-36-004251 (CA-SBR-4251H)	Historic-era	Structure	Baldy Mesa Pole Line	1991 (J. Petersen) 2009 (Kathrine Anderson) 1980 (R. Reynolds) 1993 (Kenneth Becker) 2010 (J. Coleman) 2011 (Josh Tramper) 1993 (Kenneth Becker) 2018 (Carleton Bennett)	Outside
P-36-007739 (CA-SBR-7739H)	Historic-era	Site	Refuse scatter	1992 (Becker & Phillips)	Outside
P-36-007744 (CA-SBR-7744H)	Historic-era	Site	Refuse scatter	1993 (Becker et al.)	Outside
P-36-007745 (CA-SBR-7745H)	Historic-era	Site	Refuse scatter	1993 (Becker et al.)	Outside
P-36-010315 (CA-SBR-10315H)	Historic-era	Structure, Site	Edison Company Boulder Dam-San Bernardino Electrical Transmission Line	2012 (N. Lawson) 2012 (C. Bodmer) 2011 (Justin Lev-Tov) 2010 (J. Howard) 2009 (Stephen Pappas) 2008 (Jay K. Sander) 2006 (Roger Hatheway) 1993 () 1989 (J. Brock) 1988 (N. Neuenschwander) 2013 (C. Higgins) 2015 (Audry Williams) 1997 (Neal Neuenschwander) 2014 (Wendly L. Tinsley Becker) 1997 (Carrie Wills) 2018 (Carole Denardo) 2011 (S. Kremkau) 2013 (M. O'Neill) 2008 () 2023 (Jared Miles) 2020 (Stephanie Hodal)	Outside
P-36-011264 (CA-SBR-11264H)	Historic-era	Site	Refuse scatter	2001 (John S. Alexandrowicz)	Outside
P-36-011265 (CA-SBR-11265H)	Historic-era	Site	Refuse scatter	2001 (John S. Alexandrowicz)	Outside
P-36-011266 (CA-SBR-11266H)	Historic-era	Site	Refuse scatter	2001 (John S. Alexandrowicz)	Outside
P-36-011267 (CA-SBR-11267H)	Historic-era	Site	Trail/road alignment	2001 (John S. Alexandrowicz)	Outside

Primary No. (Trinomial)	Temporal Affiliation	Resource Type	Resource Description	Year Recorded (Recorded By)	Relationship to Project Area
P-36-011268 (CA-SBR-11268H)	Historic-era	Site	Refuse scatter	2001 (John S. Alexandrowicz)	Outside
P-36-011269 (CA-SBR-11269H)	Historic-era	Site	Refuse scatter	2001 (John S. Alexandrowicz)	Outside
P-36-011271 (CA-SBR-11271H)	Historic-era	Site	Refuse scatter	2001 (John S. Alexandrowicz)	Outside
P-36-011273 (CA-SBR-11273H)	Historic-era	Site	Unimproved segment of Muscatel Street	2001 (John S. Alexandrowicz) 2009 (Madelaine Bray)	Outside
P-36-011659 (CA-SBR-11659H)	Historic-era	Site	Refuse scatter	2004 (John S. Alexandrowicz)	Outside
P-36-020764	Historic-era	Building	14393 Main St, Hesperia	2009 (Josh Smallwood)	Outside
P-36-020765	Historic-era	Building	14602 Main St, Hesperia	2009 (Josh Smallwood)	Outside
P-36-021289	Historic-era	Site	Refuse scatter	2006 (WSA)	Outside
P-36-021301	Historic-era	Site	Refuse scatter	2007 (WSA)	Outside
P-36-021302	Historic-era	Site	Refuse scatter	2007 (Allen Estes)	Outside
P-36-021303	Historic-era	Site	Refuse scatter	2007 (Allen Estes)	Outside
P-36-021304	Historic-era	Site	Refuse scatter	2007 (Estes, Allen; Buckley, David)	Outside
P-36-021351 (CA-SBR-15913H)	Historic-era	Structure	East Branch of the California Aqueduct	2009 (ESA) 2011 (Anderson) 2011 (Ambacher) 2011 (Kremkau) 2008 (Jeremy Hollins) 2012 (M. O'Neill) 2018 (Laura Voisin George) 2019 ()	Outside
P-36-060848	Historic-era	Isolate	Glass bottle fragments	1993 (RMW PALEO)	Outside
P-36-064587	Historic-era	Isolate	Glass bottle fragments	2001 (John S. Alexandrowicz)	Outside
P-36-064588	Historic-era	Isolate	Glass bottle fragments	2001 (John S. Alexandrowicz)	Outside

Sacred Lands File Search

On February 28, 2025, SWCA received the results of the SLF search from the NAHC. The results letter indicated that the results were positive and recommended contacting the San Manuel Band of Mission Indians and Chemehuevi Indian Tribe. Additional representatives of Native Americans with traditional affiliations to the project area were included on a contact list (see Appendix B). The NAHC recommended that each person be contacted to request any additional information they may have regarding unlisted or potential resources. These contacts and their affiliated tribal organizations are listed in Appendix B.

SWCA sent outreach letters via email and U.S. Postal Service on March 12, 2025, to the 13 individuals on the NAHC contact list (Table 4). Follow-up emails or phone calls, or both, were conducted March 28, 2025, to those individuals that had not responded to the initial outreach effort. As a result of this outreach, three responses were received. These responses are summarized below and included in Appendix B.

Table 4. NAHC's Native American Contact List Included with the SLF Results

Name, Title	Affiliation
Kaitlyn Snodgrass, Cultural Director	Chemehuevi Indian Tribe
Glenn Lodge, Chairman	Chemehuevi Indian Tribe
Robert Martin, Chairperson	Morongo Band of Mission Indians
Ann Brierty, Tribal Historic Preservation Office	Morongo Band of Mission Indians
Jordan Joaquin, President, Quechan Tribal Council	Quechan Tribe of the Fort Yuma Reservation
Jill McCormick, Historic Preservation Officer	Quechan Tribe of the Fort Yuma Reservation
Donna Yocum, Chairperson	San Fernando Band of Mission Indians
Alexandra McCleary, Senior Manager of Cultural Resources Management	San Manuel Band of Mission Indians
Mark Cochrane, Co-Chairperson	Serrano Nation of Mission Indians
Wayne Walker, Co-Chairperson	Serrano Nation of Mission Indians
Nicolas Garza, Cultural Resources Specialist	Twentynine Palms Band of Mission Indians
Christopher Nicosia, Cultural Resources Manager/Tribal Historic Preservation Office Manager	Twentynine Palms Band of Mission Indians
Sarah O'Brien, Tribal Archivist	Twentynine Palms Band of Mission Indians

The Chemehuevi Indian Tribe indicated they are not aware of any cultural resources concerns with the proposed project. The San Manuel Band of Mission Indians requested to participate in government-to-government consultation pursuant to AB 52 with the City of Hesperia. The Tribe indicated that the project is located within the Serrano Ancestral Territory and is within a culturally sensitive landscape for the Tribe. Finally, the Quechan Indian Tribe of Fort Yuma Reservation deferred to the local Tribes and support their determinations with regard to the project.

Historical Aerial and Map Review

SWCA reviewed aerial images, available via the University of California, Santa Barbara Aerial Imagery Library (2025) and NETROnline Historic Aerials (2025) dating from 1938 to the present day. The earliest aerial image available for the project area (1938) indicates that the project area and general area were undeveloped. Main Street to the north and Maple Avenue to the east appear as dirt roads. The next aerial (1952) shows that the project and surrounding area remain vacant. By 1959 several more streets and a few sporadic developments litter the general area while the project area itself remains undeveloped. Yucca Street and Primrose Avenue have been established by 1959. By 1968, Interstate 15 appears to have been expanded to its current extent. The project area remained undeveloped despite the progressive development of the surrounding area in the 1980s and 1990s. Throughout the 2020s residential development within the general area has continued, although the project area has remained vacant throughout this time.

SWCA reviewed USGS quadrangles, available via the USGS Historical Topographic Map Explorer (USGS 2025) and NETROnline Historic Aerials (2025), dating from 1902 to 2021. Generally speaking, these maps correspond with the information depicted in the above-referenced aerials; however, they add little additional information that would help characterize the history of the project area. As shown on these topographic maps, the project area has never been developed and the surrounding area was sparsely developed throughout much of the twentieth century.

Cultural Resource Survey

The results of the field survey indicate that the project area consists of a flat parcel that has been recently cleared of vegetation and shallowly graded. The cleared soils have been grouped in piles around the project area. Ground surface visibility was good throughout the project area at approximately 60% to 85%. The parcel is bisected by a chain-link fence that runs east-west through the property. There is a gate on the eastern side along Primrose Avenue. Additionally, a concrete pathway was noted in the northeast corner of the property. The pathway is in very poor condition and mostly obscured by surface sediment. A review of historical aerial images indicates the pathway was constructed sometime during the 1980s as part of the adjacent property. No cultural resources were identified in the project area during the field survey.

Archaeological Sensitivity Assessment

The project area has never been developed as indicated by historical aerial images and topographic maps. The project is in an area of Hesperia that was sparsely developed until the early 2000s. The nearest development includes a residential property adjacent to the project area to the west. This property was developed sometime between 1952 and 1959 and then appears to have been expanded in the 1960s and again in the 1980s. Due to the development history of the project area and vicinity, it is expected that historic period archaeological remains would be limited to sparse, surface refuse scatters from opportunistic dumping episodes, particularly from the development associated with the adjacent property. This is further supported by the presence of refuse scatters and isolated refuse items identified by the record search within 1 mile of the project area. These types of archaeological deposits generally contain surficial evidence. As stated previously, the project area has been recently shallowly graded, which would have disturbed any surface or shallowly buried archaeological deposits or materials and none were identified. As such, SWCA finds the project area likely has a low sensitivity for containing historic period archaeological resources.

The project area is located within territory that was once occupied by the Serrano, and although there are seasonal water sources near the area that may have provided important natural resources to Native American groups during parts of the year, there is a lack of permanent and reliable sources of water or other resources. There are no known prehistoric resources within 1 mile of the project area or within the project area. Although, as discussed in the prehistoric context section, there is some evidence for Pleistocene age occupation of the Mojave Desert, specifically in the China Lake region, no such evidence has yet been found in the vicinity of the project area (Davis 1975). In addition, the project area has been recently shallowly graded which would have disturbed any surface or shallowly buried archaeological deposits or materials and none were identified. Therefore, SWCA finds the project area likely has a low sensitivity for containing prehistoric archaeological resources.

CONCLUSIONS AND MANAGEMENT RECOMMENDATIONS

The cultural resource assessment included an examination of CHRIS records, communication with Native American tribal representatives, archival and background research, a buried site sensitivity assessment, and a pedestrian survey. No archaeological resources were identified within the project area as a result of the assessment. Additionally, SWCA considers the sensitivity for unidentified prehistoric and historic-era Native American-affiliated archaeological resources to be low and the sensitivity for historic period (non-Native American) archaeological resources to be low. However, the possibility of encountering as-yet unidentified archaeological resources within the project area cannot be completely ruled out.

In the event that potentially significant archaeological materials are encountered during construction, all work must be halted in the vicinity of the discovery until a cultural resources specialist meeting the Secretary of Interior's Professional Qualification Standards for archaeology (National Park Service 1983) can evaluate the find. If the discovery proves to be eligible for the CRHR, then additional work, such as data recovery excavations, may be warranted to reduce the impacts under CEQA. Additionally, Health and Safety Code Section 7050.5, CEQA Guidelines Section 14 CCR 15064.5(e), and PRC Section 5097.98 mandate the process to be followed in the unlikely event of the discovery of human remains. Finally, if the project area is expanded to include areas not covered by this study or other recent cultural resource investigations, additional studies may be required.

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APPENDIX A

Figures

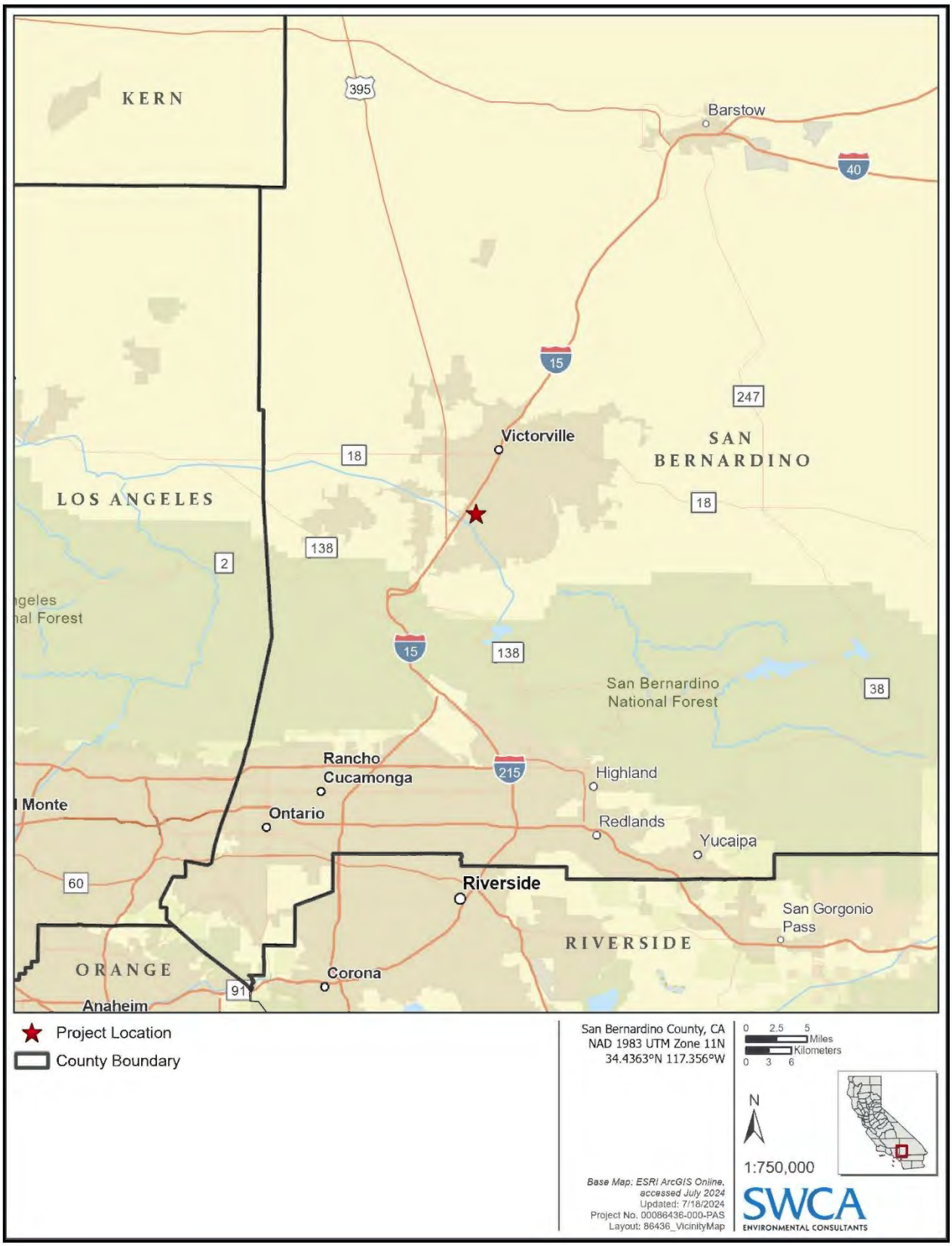


Figure A-1. Project vicinity map.

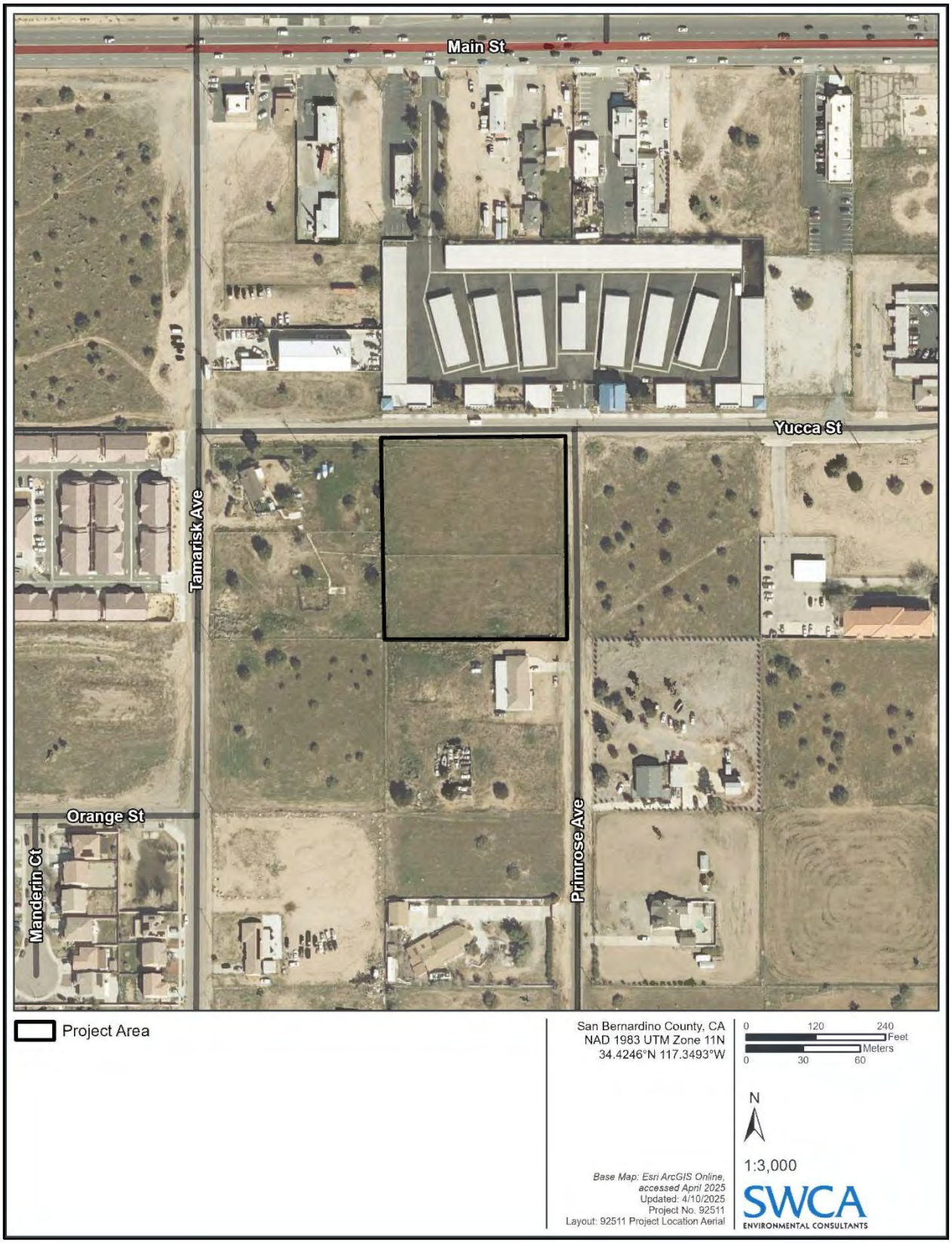


Figure A-2. Project area shown on aerial map.

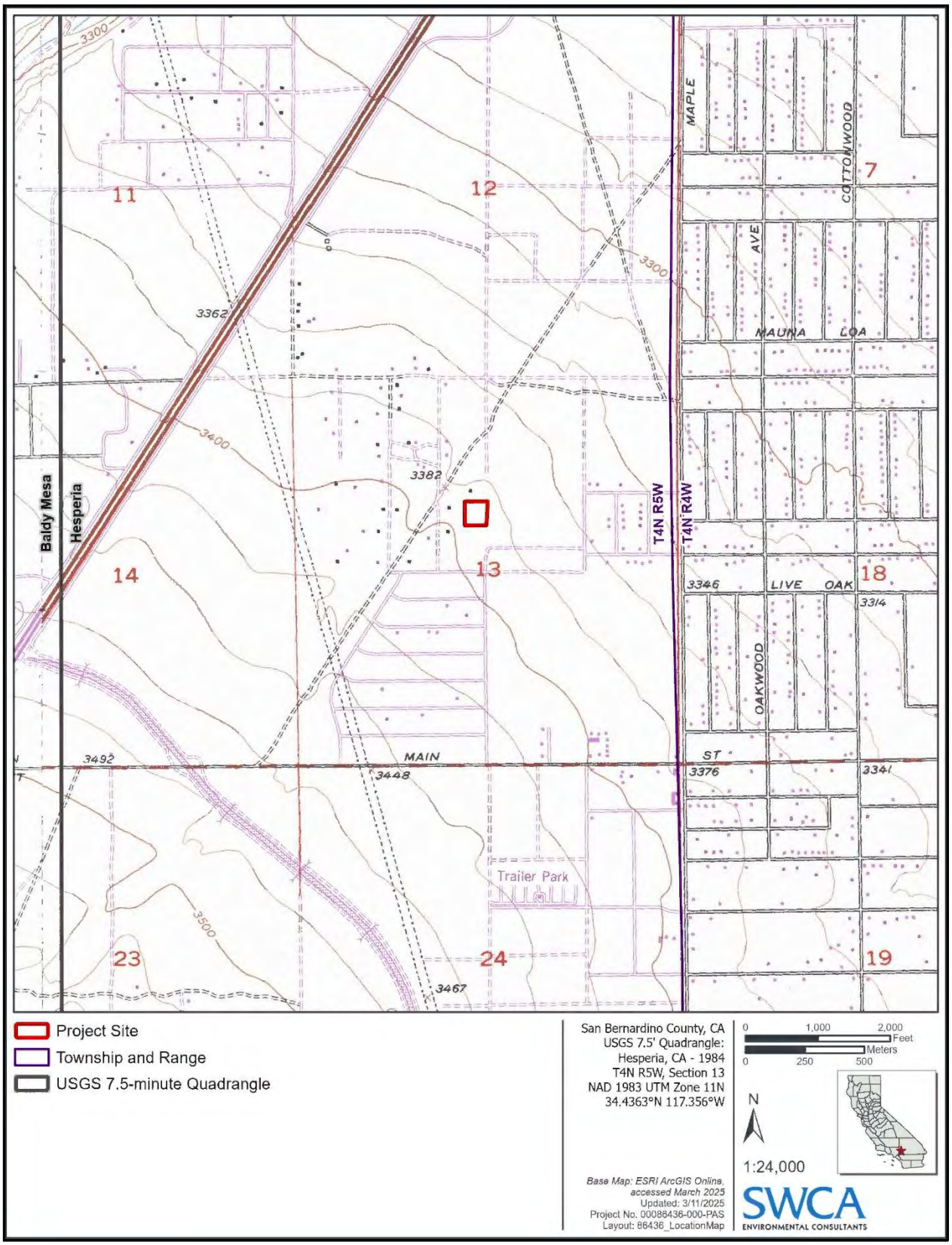


Figure A-3. Project area mapped on the USGS Hesperia, California, 7.5-minute quadrangle.

APPENDIX D

Responses to AB25 Tribal Consultation Letters

From: Kristen Tuosto
To: Edgar Gonzalez
Subject: AB52: SPR22-00016 to Construct 36-Unit Apartment Complex, APN: 3057-131-33, City of Hesperia [CIT-HESP-2025-6]

Dear Edgar,

Thank you for contacting the Yuhaaviatam of San Manuel Nation (formerly the San Manuel Band of Mission Indians) regarding the above referenced project. YSMN appreciates the opportunity to review the project documentation, which was received by our Cultural Resources Management Department on April 24, 2025, pursuant to CEQA (AB 52) and CA PRC 21080.3.1. The proposed project area exists within Serrano ancestral territory and, therefore, is of interest to the Tribe. However, due to the nature and location of the proposed project, and given the CRM Department's present state of knowledge, YSMN does not have any concerns with the project's implementation, as planned, at this time. As a result, YSMN requests that the following language be made a part of the project/permit/plan conditions:

CUL MMs

1. In the event that cultural resources are discovered during project activities, all work in the immediate vicinity of the find (within a 60-foot buffer) shall cease and a qualified archaeologist meeting Secretary of Interior standards shall be hired to assess the find. Work on the other portions of the project outside of the buffered area may continue during this assessment period. Additionally, the Yuhaaviatam of San Manuel Nation Cultural Resources Department (YSMN) shall be contacted, as detailed within TCR-1, regarding any pre-contact finds and be provided information after the archaeologist makes his/her initial assessment of the nature of the find, so as to provide Tribal input with regards to significance and treatment.

2. If significant pre-contact cultural resources, as defined by CEQA (as amended, 2015), are discovered and avoidance cannot be ensured, the archaeologist shall develop a Monitoring and Treatment Plan, the drafts of which shall be provided to YSMN for review and comment, as detailed within TCR-1. The archaeologist shall monitor the remainder of the project and implement the Plan accordingly.

3. 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.

TCR MMs

1. The Yuhaaviatam of San Manuel Nation Cultural Resources Management Department (YSMN) shall be contacted, as detailed in CUL-1, of any pre-contact cultural

resources discovered during project implementation, and be provided information regarding the nature of the find, so as to provide Tribal input with regards to significance and treatment. Should the find be deemed significant, as defined by CEQA (as amended, 2015), a Cultural Resources Monitoring and Treatment Plan shall be created by the archaeologist, in coordination with YSMN, and all subsequent finds shall be subject to this Plan. This Plan shall allow for a monitor to be present that represents YSMN for the remainder of the project, should YSMN elect to place a monitor on-site.

2. Any and all archaeological/cultural documents created as a part of the project (isolate records, site records, survey reports, testing reports, etc.) shall be supplied to the applicant and Lead Agency for dissemination to YSMN. The Lead Agency and/or applicant shall, in good faith, consult with YSMN throughout the life of the project.

Note: Yuhaaviatam of San Manuel Nation realizes that there may be additional tribes claiming cultural affiliation to the area; however, Yuhaaviatam of San Manuel Nation can only speak for itself. The Tribe has no objection if the agency, developer, and/or archaeologist wishes to consult with other tribes in addition to YSMN and if the Lead Agency wishes to revise the conditions to recognize additional tribes.

Please provide a draft and the final copy of the project/permit/plan conditions so that YSMN may review the included language. If you should have any further questions with regard to this matter, please do not hesitate to contact me at your convenience, as I will be your Point of Contact (POC) for YSMN with respect to this project.

Regards,
Kristen

APPENDIX E

Mitigation Monitoring and Reporting Program

1 MITIGATION MONITORING AND REPORTING PROGRAM

This Mitigation Monitoring and Reporting Program (MMRP) has been prepared for the Primrose Residential Project (project) based on the findings of the Initial Study/Mitigation Negative Declaration (IS/MND) prepared for the project.

1.1 STATUTORY REQUIREMENTS

When a Lead Agency makes findings on significant environmental effects identified in an Mitigated Negative Declaration (MND), the agency must also adopt a "reporting or monitoring program for the changes to the project which it has adopted or made a condition of approval in order to mitigate or avoid significant effects on the environment" (Public Resources Code [PRC] Section 21081.6(a) and California Environmental Quality Act [CEQA] Guidelines Sections 15091(d) and 15097). The Mitigation Monitoring and Reporting Program (MMRP) is implemented to ensure that the mitigation measures and project revisions identified in the IS/MND are implemented. Therefore, the MMRP must include all changes in the project either adopted by the project proponent or made conditions of approval by the Lead or Responsible Agency.

1.2 ADMINISTRATION OF THE MITIGATION MONITORING AND REPORTING PROGRAM

The City of Hesperia (City) is the Lead Agency responsible for the adoption of the MMRP. The San Luis Concrete Corp. (Applicant), is responsible for implementation of the MMRP, in coordination with the City and other identified entities. According to State CEQA Guidelines Section 15097(a), a public agency may delegate reporting or monitoring responsibilities to another public agency or to a private entity that accepts the delegation. The City may delegate responsibility for verifying and documenting compliance with the MMRP to the Applicant as coordinator of the project and its construction, and the Applicant will be responsible for compliance. However, until mitigation measures have been completed, the City, as the Lead Agency, remains responsible for ensuring that the implementation of the measures occurs in accordance with the program.

1.3 MITIGATION MEASURES

The MMRP table below is structured to enable quick reference to mitigation measures and the associated monitoring program based on the environmental resource. The numbering of mitigation measures correlates with the numbering of measures found in the corresponding environmental analysis provided in the project's IS/MND. The table also describes the timing for mitigation measure implementation (e.g.., when the measure shall be implemented) and the responsible parties—such as the Construction Contractor, Applicant, and/or City of Hesperia—that are responsible for ensuring implementation of all aspects of each measure.

Table 1. Mitigation Monitoring and Reporting Program

Mitigation Measure	Requirements of Measure	Compliance Method	Verification Timing	Responsible Parties
BIO-1	**Project Biological Monitor.** At the time of application for grading permits, the project applicant shall retain a qualified biological monitor(s) and include the monitor's credentials with grading permit application materials submitted to the City. Biological monitoring shall be performed during initial laydown and ground disturbance of any new portion of the project area, including vegetation removal and grading, during project construction activities. The biological monitor(s) shall have sufficient education and field experience to understand resident wildlife species biology and have experience conducting botanical and wildlife surveys in desert ecosystems. To avoid and minimize effects on biological resources, the biological monitor(s) shall be responsible for the following: a. Be present during initial laydown and ground disturbance of any new portion of the project area, including vegetation removal and grading, that take place in suitable habitat for burrowing owl, desert kit fox, American badger or other protected species to prevent or minimize harm or injury to these species. b. Activities of the biological monitor(s) include, but are not limited to, ensuring compliance with all avoidance and minimization measures; halting construction activity in the area if a special-status species is found; and verifying that disturbance areas are marked with staking or flagging and that construction activities stay within the staked/flagged limits. c. If burrowing owl, desert kit fox, American badger, or other protected species are found within a work area, the biological monitor(s) shall halt work in the vicinity; if impacts to a special-status species cannot be avoided, the biological monitor(s) will immediately notify the City and the relevant agency(ies), who shall determine measures to be taken to ensure that impacts to special status species are avoided. d. Inspect the study area for any special-status wildlife species and active bird nests. e. In the event of the discovery of a non-listed, special-status ground-dwelling animal, recover and relocate the animal to adjacent suitable habitat at least 200 feet from the limits of construction activities. f. At the end of each work day, inspect all potential wildlife pitfalls (e.g., trenches, bores, other excavations) for wildlife and remove wildlife as necessary. If the potential pitfalls will not be immediately backfilled following inspection, the	Retain a City-approved project biologist to ensure compliance with biological resource mitigation measures	Prior to issuance of grading permits	**Implementation:** Applicant **Verification:** City of Hesperia

	biological monitor(s) will ensure that the construction crew slopes the ends of the excavation (3:1 slope), provides wildlife escape ramps, or completely and securely covers the excavation to prevent wildlife entry. Handling of special-status species will be conducted only if the biologist and the project have all required authorizations from the California Department of Fish and Wildlife (CDFW) and/or the U.S. Fish and Wildlife Service (USFWS). g. Inspect the site to ensure trash and food-related waste are placed in closed-lid containers and that workers do not feed wildlife. Ensure that pets are not allowed on site prior to or during construction to minimize disturbances to wildlife. Also inspect the work area each day to ensure that no microtrash (e.g., bolts, screws, etc.) is left behind.			
BIO-2	**Worker Environmental Awareness Program**. Prior to the onset of construction activities, the project biological monitor shall provide Worker Environmental Awareness Program (WEAP) training. Any employee responsible for the construction, operation, and/or maintenance of the project shall attend the WEAP. The WEAP will be developed by a qualified biologist, and all training materials shall be submitted to the City with a copy of the names of all staff who attended prior to the onset of construction activities. The WEAP shall include the following content: a. The program will include information on the life history of sensitive biological resources that may occur within the project area, including western Joshua tree and other listed or special-status species that could be present on-site. b. The program will discuss each species' legal protection status, the definitions of take under the California Endangered Species Act (CESA) and the federal Endangered Species Act (FESA), measures the project operator is implementing to protect the species, reporting requirements, specific measures that each worker will employ to avoid take of wildlife species, and penalties for violation of the CESA and the FESA. c. An acknowledgement form signed by each worker indicating that environmental training has been completed will be kept on record. d. A sticker will be placed on worker hard hats upon the worker's successful environmental training completion. Construction workers will not be permitted to operate vehicles or equipment within the construction areas unless they have attended the training and are wearing hard hats with the required sticker. e. The WEAP will identify a point of contact if a listed or special-status species is observed on the project site.	Retain a City-approved project biologist to ensure compliance with biological resource mitigation measures	Prior to issuance of grading permits	**Implementation:** Applicant **Verification:** City of Hesperia

BIO-3	**Desert Kit Fox Avoidance and Protection Measures.** To avoid direct impacts to desert kit fox, preconstruction surveys shall be conducted for this species no more than 30 days prior to the start of construction activities. Preconstruction surveys shall include 100% visual coverage of the survey area and shall be conducted as described below: 1. Qualified biologists knowledgeable about desert kit fox ecology and sign identification (e.g., dens) shall perform preconstruction surveys for potential desert kit fox dens in the project disturbance area, including a 50-foot buffer beyond the limits of disturbance, utility corridors, and access roads. All potential dens (i.e., any burrow/den with a diameter of 4 inches or greater) that are identified shall be mapped and assessed for activity using one or both of the following methods: a. Tracking medium shall be applied to the ground surrounding the den and remain in place for 3 days to detect tracks of kit foxes entering and exiting the den. b. An infrared motion-sensing camera shall be installed such that the den entrance may be photographed when triggered by an animal. The camera shall remain in place for 3 nights to determine the status of the den. 2. Potential dens that have shown no sign of kit fox activity (e.g., photos, tracks, or scat) after 3 consecutive nights can be determined as inactive. Inactive dens that would be directly impacted by construction activities shall be carefully excavated under the direction of a qualified biologist and backfilled to prevent reuse by foxes. Excavation shall take place immediately following the 3rd night of monitoring. If an inactive den is left intact and unmonitored for one or more nights, it can become occupied, and the 3 nights of monitoring must be repeated before the den is disturbed. 3. If a non-natal den is observed to be active in an area where it will be directly impacted by construction, a 50-foot no-disturbance buffer shall be installed around the den, and it shall be monitored with an infrared motion-sensing camera to determine when the fox has left the den. After 3 nights of confirmed vacancy, the den shall be carefully excavated and backfilled to prevent reuse by foxes. If the non-natal den will not be directly affected by construction, the 50-foot buffer shall remain until the residents leave and will continue to be monitored for re-occupation. 4. If a non-natal den remains active for more than 5 days and will be directly impacted by construction, the residents can be passively harassed to encourage departure. This is accomplished by partially blocking the den with soil or	Retain a City-approved project biologist to ensure compliance with biological resource mitigation measures	Prior to issuance of grading permits	**Implementation:** Applicant and Construction Contractor **Verification:** CDFW

	vegetation to discourage the foxes from continued use, ensuring foxes can still exit the den and will not be entombed. After 3 nights of verification that the den is unoccupied, it shall then be carefully excavated under the direction of a qualified biologist and backfilled. 5. If an active natal den is detected on the site, the California Department of Fish and Wildlife (CDFW) shall be contacted within 24 hours to determine the appropriate course of action to minimize the potential for harm or mortality. A 500-foot no-disturbance buffer shall be maintained around active natal dens. 6. Desert Kit foxes may use human-made materials, like appropriately sized pipes and crevices in stored materials. These dens are considered atypical dens. Atypical dens shall be treated like natural dens—a 50-foot buffer shall surround active atypical dens. Stored materials used as atypical dens shall not be moved until 3 nights of confirmed absence have been established.			
BIO-4	**American Badger Avoidance and Protection Measures.** To avoid direct impacts to American badger, preconstruction surveys shall be conducted for this species no more than 30 days prior to the start of construction activities. Surveys shall be conducted as described below: a. Biological monitors shall perform preconstruction surveys for badger dens in the project disturbance area, including a 20-foot buffer beyond the disturbed area, utility corridors, and access roads. If dens are detected, each den shall be classified as inactive, potentially active, or definitely active. b. Inactive dens that would be directly impacted by construction activities shall be excavated by hand and backfilled to prevent reuse by badgers. c. Potentially and definitely active dens that would be directly impacted by construction activities shall be monitored by the biological monitor for 3 consecutive nights using a tracking medium (such as diatomaceous earth or fire clay) and/or infrared camera stations at the entrance. d. If no tracks are observed in the tracking medium or no photos of the target species are captured after 3 consecutive nights, the den shall be excavated and backfilled by hand. e. If tracks are observed, the den shall be progressively blocked with natural materials (rocks, dirt, sticks, and vegetation piled in front of the entrance) for the next 3 to 5 nights to discourage the badger from continued use. After verification that the den is unoccupied, it shall then be excavated and backfilled by hand to ensure that no badgers are trapped in the den.	Monitor compliance with measures including setback distances. If necessary, prepare a WJTCA permit.	Prior to issuance of grading permits	**Implementation:** Applicant and Construction Contractor **Verification:** CDFW

	f. If an active natal den is detected on the site, the California Department of Fish and Wildlife (CDFW) shall be contacted within 24 hours to determine the appropriate course of action to minimize the potential for harm or mortality. The course of action would depend on the age of the cubs, location of the den on the site (e.g., is the den in a central area or in a perimeter location), status of the perimeter site fence (completed or not), and the pending construction activities proposed near the den. A 500-foot no-disturbance buffer shall be maintained around active natal dens.			
BIO-5	**Burrowing Owl Avoidance, Minimization, and Mitigation.** No more than 14 days prior to the start of ground disturbance, a preconstruction survey for burrowing owls in conformance with the California Department of Fish and Wildlife (CDFW) Staff Report on Burrowing Owl Mitigation (CDFW 2012) shall be completed within suitable habitat at every work area and within a 150-m buffer zone of each work area. Work areas shall be resurveyed following periods of inactivity of 2 weeks or more. The project applicant/owner shall submit the results of the preconstruction survey to the City of Hesperia and CDFW. If occupied burrows are identified on-site or within the 150-meter buffer, the following measures shall be implemented: a. No disturbance shall occur within 160 feet (50 m) of occupied burrows during the non-breeding season (September 1–January 31) or within 650 feet (200 m) during the breeding season (February 1–August 31); b. Occupied burrows shall not be disturbed during the nesting season (February 1–August 31); c. Unless otherwise authorized by CDFW, a 650-foot buffer within which no activity shall be maintained between project activities and nesting burrowing owls during the nesting season. This protected area shall remain in effect until August 31 or at CDFW's discretion and, based on monitoring evidence, until the young owls are foraging independently. If it is determined that impacts to burrowing owl cannot be avoided and may result in incidental take of the species, the biological monitor(s) shall immediately halt work. The project applicant shall be required to complete consultation with CDFW to apply for an ITP pursuant to CESA. Additional mitigation measures may be required as part of the ITP process.	Retain a City-approved project biologist to ensure compliance with biological resource mitigation measures	Prior to issuance of grading permits	**Implementation:** Construction Contractor **Verification:** CDFW
BIO-6	**Dust Control.** Control of dust will be implemented during construction activities. The primary mechanism for dust control will be the use of water trucks with a spray bar and hose(s). Proactive controls will be instituted to reduce the amount of dust generated during site activities, including enforcement of low speed limits (below 15 mph) for vehicular traffic, decontamination of trucks	Monitor compliance with Construction General Best Practices.	During construction activities on the project site	**Implementation:** Applicant and Construction Contractor **Verification:** City of Hesperia

	leaving the remediation work areas, and a 5-foot height limit for temporarily stockpiled material.			
BIO-7	**Refuse Removal.** Upon completion of each project component, all remaining materials and equipment will be removed from the site.	Monitor compliance with Construction General Best Practices.	During construction activities on the project site	**Implementation:** Construction Contractor **Verification:** City of Hesperia
BIO-8	**Invasive Plants.** To prevent the spread of invasive plants that have the potential to outcompete native plant species, all vehicles and any ground- or vegetation-disturbing equipment and tools will be cleaned free of mud, soil, and plant material before entering the project site for the first time, and any time after driving off pavement outside the project site. Cleaning can be through car washes, compressed air, pressure washes, brushes, or similar equipment.	Prevent spread of invasive plant species to ensure compliance with biological resource mitigation measures	Prior to issuance of grading permits, during construction	**Implementation:** Construction Contractor **Verification:** City of Hesperia
CR-1	**Retain a Qualified Archaeologist.** At the time of application for grading or construction permits, whichever occurs first, the project applicant shall submit evidence of retaining a qualified archaeologist for the development and implementation of the worker environmental awareness training to be conducted for all construction personnel as described under Mitigation Measure CR-2, below.	Retain a qualified archaeologist	Prior to issuance of grading or construction permits	**Implementation:** Applicant **Verification:** City of Hesperia
CR-2	**Worker Environmental Awareness Training.** Prior to initial ground-disturbing activities, the project archaeologist shall conduct a brief construction worker awareness training for all construction personnel. This training shall include, but not be limited to, the following information: a. Review the types of archaeological artifacts that may be uncovered; b. Provide examples of common archaeological artifacts to examine; c. Review what makes an archaeological resource significant to archaeologists and local Native Americans; d. Review reporting requirements, relevant environmental laws, and penalties; e. Describe procedures that would be followed in the event of a new discovery; f. Best management practices; g. Responsibilities of project personnel; and h. Who to contact in the event of an inadvertent discovery, inclusive of local Native American tribes. The name and qualifications of the archaeologist who provided the training and a list of all construction personnel who completed the training shall be provided to the City prior to initiation of construction activities.	Retain a qualified archaeologist to create a Worker Environmental Awareness Program	Prior to commencement of construction	**Implementation:** Applicant **Verification:** City of Hesperia
CR-3	**Inadvertent Discovery of Archaeological Resources Protocol.** If cultural resources are encountered during subsurface earthwork	Immediately cease work in the vicinity of an	During ground-disturbing activities	**Implementation:** Applicant

	activities, all ground-disturbing activities within a 2560-foot radius of the find shall cease and the City shall be notified immediately, and a qualified archaeologist meeting Secretary of Interior standards shall be hired to assess the find. Work shall not continue until the project archaeologist assesses the find and determines the need for further study. If the find includes Native American-affiliated materials, a local Native American tribal representative will be contacted to work in conjunction with the project archaeologist to determine the need for further study. Additionally, the Yuhaaviatam of San Manuel Nation Cultural Resources Department (YSMN) shall be contacted, as detailed within TCR-1, regarding any pre-contact finds and be provided information after the archaeologist makes his/her initial assessment of the nature of the find, so as to provide Tribal input with regards to significance and treatment. A standard inadvertent discovery clause shall be included in every grading and construction contract to inform contractors of this requirement. Any previously unidentified resources found during construction shall be recorded on appropriate California Department of Parks and Recreation forms and evaluated for significance in terms of the California Environmental Quality Act (CEQA) criteria by a qualified archaeologist. If the resource is determined significant under CEQA, the qualified archaeologist shall prepare and implement a research design and archaeological data recovery plan, in conjunction with locally affiliated Native American representative(s) as necessary, that will capture those categories of data for which the site is significant. The archaeologist shall also perform appropriate technical analysis, prepare a comprehensive report, and file it with the South Central Coastal Information Center and the City of Hesperia Planning Department, and provide for the permanent curation of the recovered materials. In addition, if significant pre-contact cultural resources, as defined by CEQA, are discovered and avoidance cannot be ensured, the archaeologist shall develop a Monitoring and Treatment Plan, the drafts of which shall be provided to YSMN for review and comment, as detailed within TCR-1. The archaeologist shall monitor the remainder of the project and implement the Plan accordingly.	archaeological resource find and retain a qualified archaeologist to assess the find.		**Verification:** City of Hesperia
CR-4	**Discovery of Human Remains Protocol.** In the event that human remains are exposed during earth-disturbing activities associated with the project, an immediate halt work order shall be issued, and the City of Hesperia shall be notified. California Health and Safety Code Section 7050.5 requires that no further disturbance of the site or any nearby area reasonably suspected to overlie adjacent human remains shall occur until the County Coroner has made the necessary findings as to origin and disposition pursuant to California Public Resources Code Section 5097.98. If the remains are determined to be of Native American descent, the coroner shall notify the Native American Heritage Commission within 24 hours.	Immediately cease work in the vicinity the area suspected to overlie adjacent human remains and retain a qualified archaeologist to assess the find.	During ground-disturbing activities	**Implementation:** Applicant **Verification:** City of Hesperia

	These requirements shall be printed on all relevant sheets of building and grading plans.			
TCR-1	**Discovery of cultural resources.** The Yuhaaviatam of San Manuel Nation Cultural Resources Management Department (YSMN) shall be contacted if any pre-contact cultural resources are discovered during project implementation, and provided information regarding the nature of the find, to provide Tribal input with regards to significance and treatment. Should the find be deemed significant, as defined by CEQA, a Cultural Resources Monitoring and Treatment Plan shall be created by the archaeologist, in coordination with YSMN, and all subsequent finds shall be subject to this Plan. This Plan shall allow for a monitor to be present that represents YSMN for the remainder of the project, should YSMN elect to place a monitor on-site.	Contact YSMN if any pre-contact cultural resources are discovered	Prior to commencement of construction	**Implementation:** Applicant **Verification:** City of Hesperia
TCR-2	**Archaeological/cultural documents created as a part of the project.** All archaeological/cultural documents created as a part of the project (isolate records, site records, survey reports, testing reports, etc.) shall be supplied to the City for dissemination to YSMN. The City shall, in good faith, consult with YSMN throughout the life of the project.	Document and submit records and reports to the City and YSMN if pre-contact cultural resources are discovered	Prior to commencement of construction	**Implementation:** Applicant **Verification:** City of Hesperia

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