

Wells W9 and W10 PFAS Groundwater Treatment Improvements Project

Draft Initial Study-Mitigated Negative Declaration

prepared by

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RINCON CONSULTANTS

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Initial Study

1. Project Title

Wells W9 and W10 PFAS Groundwater Treatment Improvements Project

2. Lead Agency Name and Address

Santa Clarita Valley Water Agency
26515 Summit Circle
Santa Clarita, California 91350

3. Contact Person and Phone Number

Yoganathan Thierumaran, PE, Engineer
(661) 259-2117

4. Project Location

The project site is comprised of an approximately 36 acre maximum project area and a 1.6-acre impact area spanning the following properties and public rights-of-way in Santa Clarita, California:

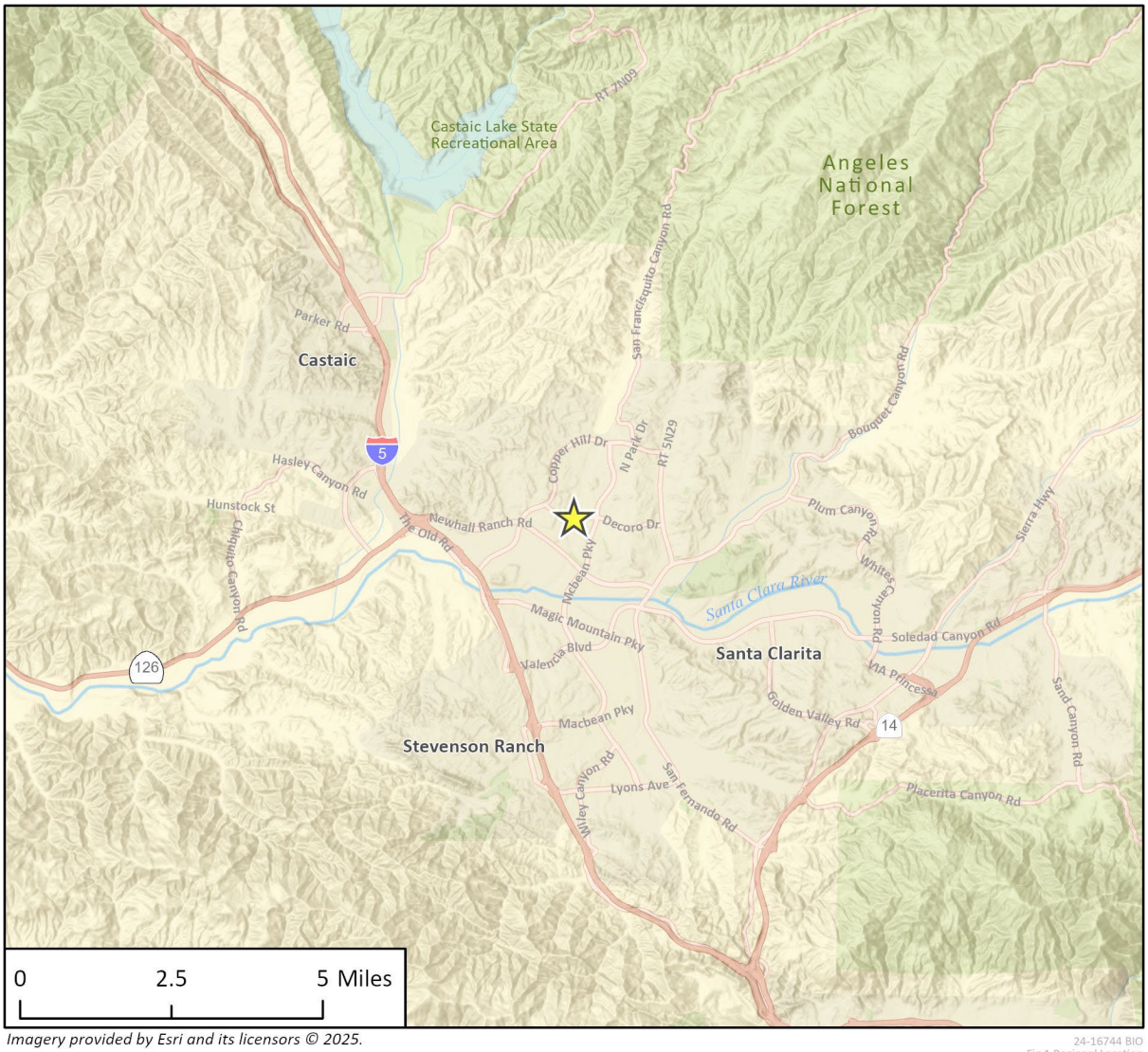
- **Assessor's Parcel Number (APN) 2810-002-101:** Within this parcel is the existing Well W9 site, which encompasses approximately 0.2 acre (8,700 square feet). The Well W9 site is immediately west of San Francisquito Creek and approximately 0.5 mile north of Decoro Drive, 0.8 mile south of Copper Hill Drive, and 200 feet east of the San Francisquito Creek Trail. San Francisquito Creek traverses the parcel north to south.
- **APN 2810-067-008:** Within this parcel is the existing Well W10 site, which encompasses approximately 0.03 acre (1,300 square feet). The Well W10 site is located within a parking lot immediately north of Newhall Ranch Road, 150 feet west of San Francisquito Creek, and 0.6 mile south of Decoro Drive.
- **Public Right-of-Way of San Francisquito Creek Trail.** The project site includes approximately 11,000 linear feet of the San Francisquito Creek Trail, which travels generally north-south on the west side of San Francisquito Creek through Santa Clarita.

See Figure 1 for a map of the regional project location, and Figure 2 and Figure 3 for a map of the project site location in a local context. Figure 4 shows photographs of the existing site and facilities. Access to the Well W9 site is provided via the San Francisquito Creek Trail via Copper Hill Drive, and access to the Well W10 site is provided via Newhall Ranch Road.

5. Project Sponsor's Name and Address

Santa Clarita Valley Water Agency
26515 Summit Circle
Santa Clarita, California 91350

Figure 1 Regional Project Location



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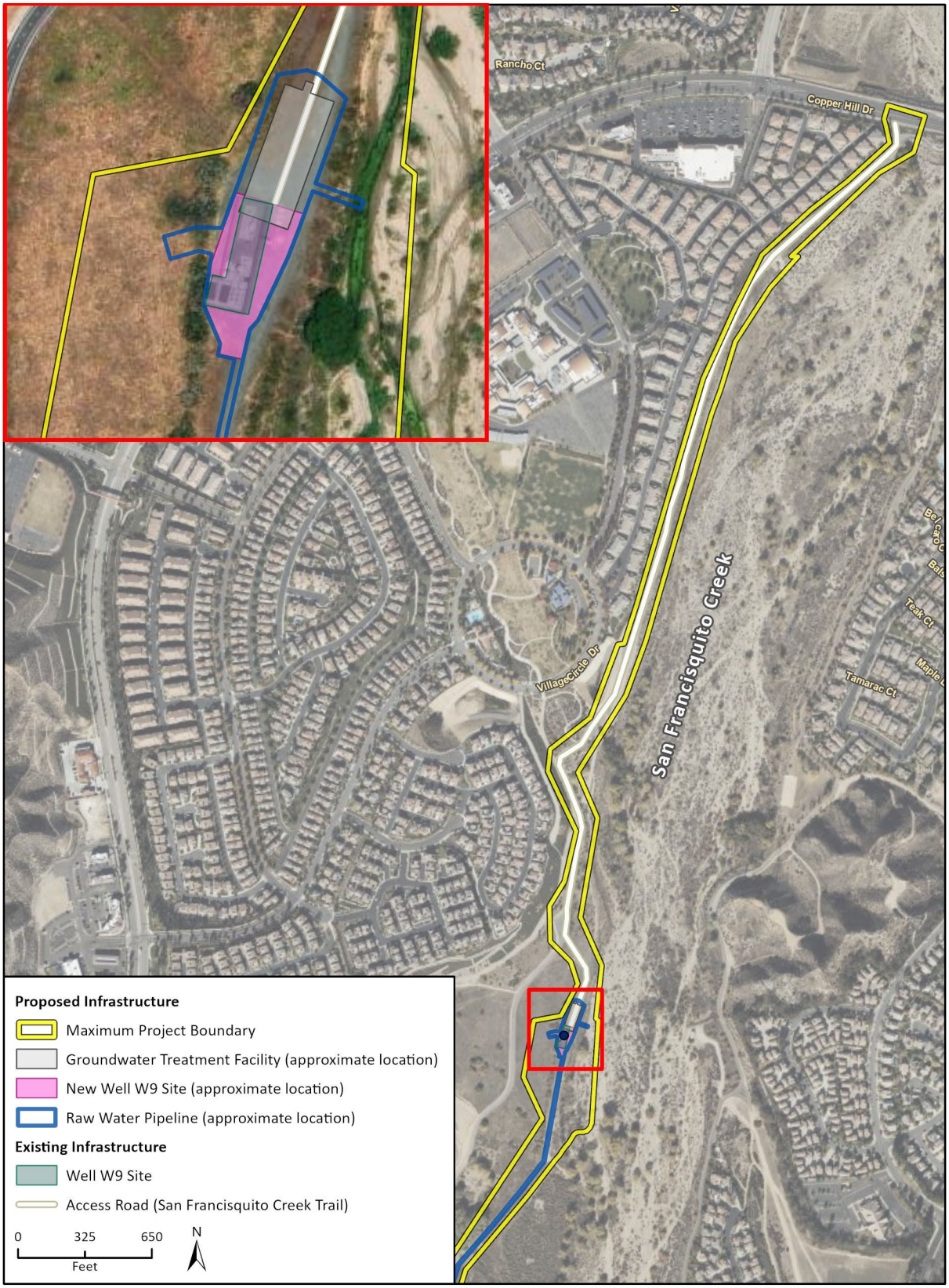
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Fig 1 Regional Location

★ Project Location

N



Figure 2 Project Site Location – Northern Extent



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Fig 2 Project Location - Top

Figure 3 Project Site Location – Southern Extent



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24-16744 BIO
Fig 2 Project Location - Bottom

Figure 4 Representative Site Photographs



Photograph 1. San Francisquito Creek Trail south of Copper Hill Drive facing southwest, with San Francisquito Creek on the left and single-family residences on the right.



Photograph 2. San Francisquito Creek Trail approximately 450 feet south of Copper Hill Drive, facing south.



Photograph 3. Existing access road to the Well W9 site southwest of the San Francisquito Creek Trail, approximately 400 feet north of Well W9, facing south.



Photograph 4. Well W9 from the existing access road, facing southwest.



Photograph 5. San Francisquito Creek Trail underpass north of Decoro Drive, with San Francisquito Creek on the right. Facing northwest.



Photograph 6. San Francisquito Creek Traill approximately 700 feet northeast of the intersection of Smyth Drive and Dickason Drive, facing south.



Photograph 7. The Well W10 site from a driveway north of Newhall Ranch Road, facing south.



Photograph 8. Well W10 immediately north of Newhall Ranch Road, facing south.

6. General Plan Designation

APN 2810-002-101 has a land use designation of Open Space (City of Santa Clarita 2025). APN 2810-067-008 is located within the North Valencia II Specific Plan and has a land use designation of Mixed Use (City of Santa Clarita 1999).

7. Zoning

APN 2810-002-101 is zoned Open Space. APN 2810-067-008 is zoned as North Valencia II Commercial (City of Santa Clarita 2025).

8. Description of Project

Background

Santa Clara River Valley East Groundwater Subbasin Groundwater Sustainability Plan

The Santa Clarita Valley Water Agency (SCV Water) operates numerous groundwater extraction wells in the Upper Santa Clara River Groundwater Basin (Basin). The Basin is roughly 100 square miles in size and contains a shallow alluvial aquifer and the deeper Saugus Formation with groundwater extracted from both aquifers. For decades, SCV Water's Groundwater Management Plan and Urban Water Management Plans described the planned approach to pump groundwater from the Basin to provide groundwater supply as part of an overall conjunctive use strategy that includes use of imported supplies (SCV Water 2021). More recently, due to statewide regulatory efforts, State-required Groundwater Sustainability Agencies were formed to develop Groundwater Sustainability Plans.

The Santa Clarita Valley Groundwater Sustainability Agency (SCV GSA) is operated via a Joint Powers Agreement between the following member agencies: the City of Santa Clarita, Los Angeles County Regional Planning, Los Angeles County Waterworks District No. 36, and SCV Water. SCV Water provides administrative services to the SCV GSA, which include the Basin monitoring called for in the Santa Clara River Valley East Groundwater Subbasin Groundwater Sustainability Plan (GSP), preparation of regular reports on Basin conditions, and preparation of an annual report.

After a robust public process, the SCV GSA adopted the GSP in 2022. The GSP adheres to the pumping plan approaches in the Urban Water Management Plan and determined the Basin can be operated sustainably over the long-term in conjunction with specialized monitoring. The GSP concludes, with the evaluated groundwater pumping plan, any changes to future non-storm surface water flows out of the Basin would not be substantially different from historical non-storm flows (SCV GSA 2022). Groundwater pumping conducted in a manner consistent with GSP modeling assumptions would not be expected to result in any significant direct or indirect changes to streamflow. In the event GSP sustainable management criteria (e.g., groundwater elevations) are not met due to groundwater extraction, the GPS contains management actions that must be implemented to address the issue.

Project Background

SCV Water currently provides water services to approximately 278,000 residents via approximately 75,000 service connections. On average, about 50 percent of SCV Water's water supply comes from the State Water Project, with the remainder sourced from groundwater wells tapping into the alluvial aquifer beneath the Santa Clara River and the Saugus Formation under the Upper Santa Clara River.

On April 10, 2024, the United States Environmental Protection Agency issued the final National Primary Drinking Water Regulation (NPDWR) for six per- and polyfluorinated alkyl substances (PFAS) compounds. These include perfluorooctanoic acid, perfluorooctanesulfonic acid, perfluorohexanesulfonic acid, perfluorononanoic acid, and hexafluoropropylene oxide dimer acid, with each assigned specific Maximum Contaminant Levels. In addition, a hazard index Maximum Contaminant Level was established for mixtures containing two or more of perfluorohexanesulfonic acid, perfluorononanoic acid, hexafluoropropylene oxide dimer acid, and perfluorobutanesulfonic acid to address their combined presence in drinking water (Woodard and Curran 2025).

SCV Water has two existing wells, W9 and W10, located along the west side of San Francisquito Creek near Newhall Ranch Road and Decoro Drive in the Rancho Santa Clarita community in the city of Santa Clarita. The two wells can generate up to a total of 2,700 gallons per minute (gpm) of potable water. Due to elevated PFAS concentrations, the wells were taken offline in 2023. To make up for the loss of groundwater production, SCV Water has relied on the purchase of additional imported water supplies to meet local demand.

Project Description

The Wells W9 and W10 Groundwater Treatment Improvements Project (herein referred to as "proposed project" or "project") involves the construction of a groundwater treatment facility and associated pipelines to treat PFAS in pumped groundwater to levels below the federal Maximum Contaminant Level, restore the use of Wells W9 and W10, and reduce SCV Water's dependency on imported water.

The project is currently under design. Proposed locations of the groundwater treatment facility, the new Well W9 site, and the raw water pipeline are shown in Figure 2 and Figure 3; however, the final location of project components may change. To provide a complete analysis of all potential environmental impacts associated with the project, it is assumed that all project features would ultimately be located within the Maximum Project Boundary shown in Figure 2 and Figure 3.

The following sections describe the individual project components.

Well W9 Site

The following project components would occur at the existing Well W9 site, shown in Figure 2.

WELL W9 REHABILITATION

Well W9 would be rehabilitated. Rehabilitation would involve removal of existing well equipment and installation of a new vertical turbine, 12-inch well pump, a 250-horsepower motor, and electrical equipment. The rehabilitated Well W9 would have a design flow capacity of 1,200 gallons per minute (gpm). The currently proposed location of the modified Well W9 site is shown in Figure 2; the final well location would be generally located in this area within the Maximum Project Boundary.

CENTRALIZED GROUNDWATER TREATMENT FACILITY

The proposed project includes construction of a centralized groundwater treatment facility within APN 2810-002-101 near the existing Well W9 site. The currently proposed location of the groundwater treatment facility is shown in Figure 2; the final location would be generally located in this area within the Maximum Project Boundary. The facility would include two cartridge filters, one set of ion-exchange vessels (or equivalent technology), yard piping, and a building to house chemical feed and storage, controls, and electrical equipment. Each of the cartridge filters (including aboveground piping) would be approximately 30 square feet and seven feet in height. The ion-exchange vessels (including appurtenances) would be approximately 12 feet in diameter and 14 feet in height. Together, the filters and vessels would handle a maximum flow rate of 2,000 gpm. See Figure 5 for an illustration of the conceptual layout of the proposed groundwater treatment facility.

The proposed project also involves installation of several chemical feed systems. The project includes converting the existing tablet chlorination system at Well W9 to a chloramine-based disinfection system consisting of disinfection with liquid sodium hypochlorite followed by chloramine formation utilizing liquid ammonium sulfate. This disinfection system may include water softeners, a brine tank, a skid-mounted electrolytic cell, a sodium hypochlorite storage tank, and two skid-mounted metering pumps, all situated on an equipment pad with a concrete containment curb and/or chemical containment trench with fiberglass-reinforced plastic grating. In addition, a bulk storage tank for liquid ammonium sulfate would be installed with a concrete containment curb and/or chemical containment trenches with fiberglass-reinforced plastic grating and two skid-mounted metering pumps. To dechlorinate water used for rinsing each new set of resin media for the proposed ion-exchange vessels, sodium bisulfite would be used. The facility would include a sodium bisulfite bulk storage tank and an approximately 200-foot groundwater discharge pipeline between the facility and San Francisquito Creek.

The proposed cartridge filters and ion-exchange vessels would be installed within the treatment facility. The chemical feed systems would be installed within an uncovered concrete masonry unit treatment building approximately 80 feet by 60 feet in area and 30 feet in height. Emergency shower and eyewash stations would be installed outside the building. All elements of the treatment facility would be enclosed within a concrete masonry unit wall with two sliding gates for vehicle access and one gate for pedestrian access. New lighting would be installed around the treatment facility building and site ingress/egress; lighting would be downcast to minimize glare. Lighting would remain off at night and would only be turned on for operations and repairs. The facility would also include a new supervisory control and data acquisition system. The treatment facility would result in the addition of approximately 10,000 square feet of impervious surfaces to the project site. Demolition and reconstruction of the wells and construction of the treatment facility would occur over approximately 20 weeks.

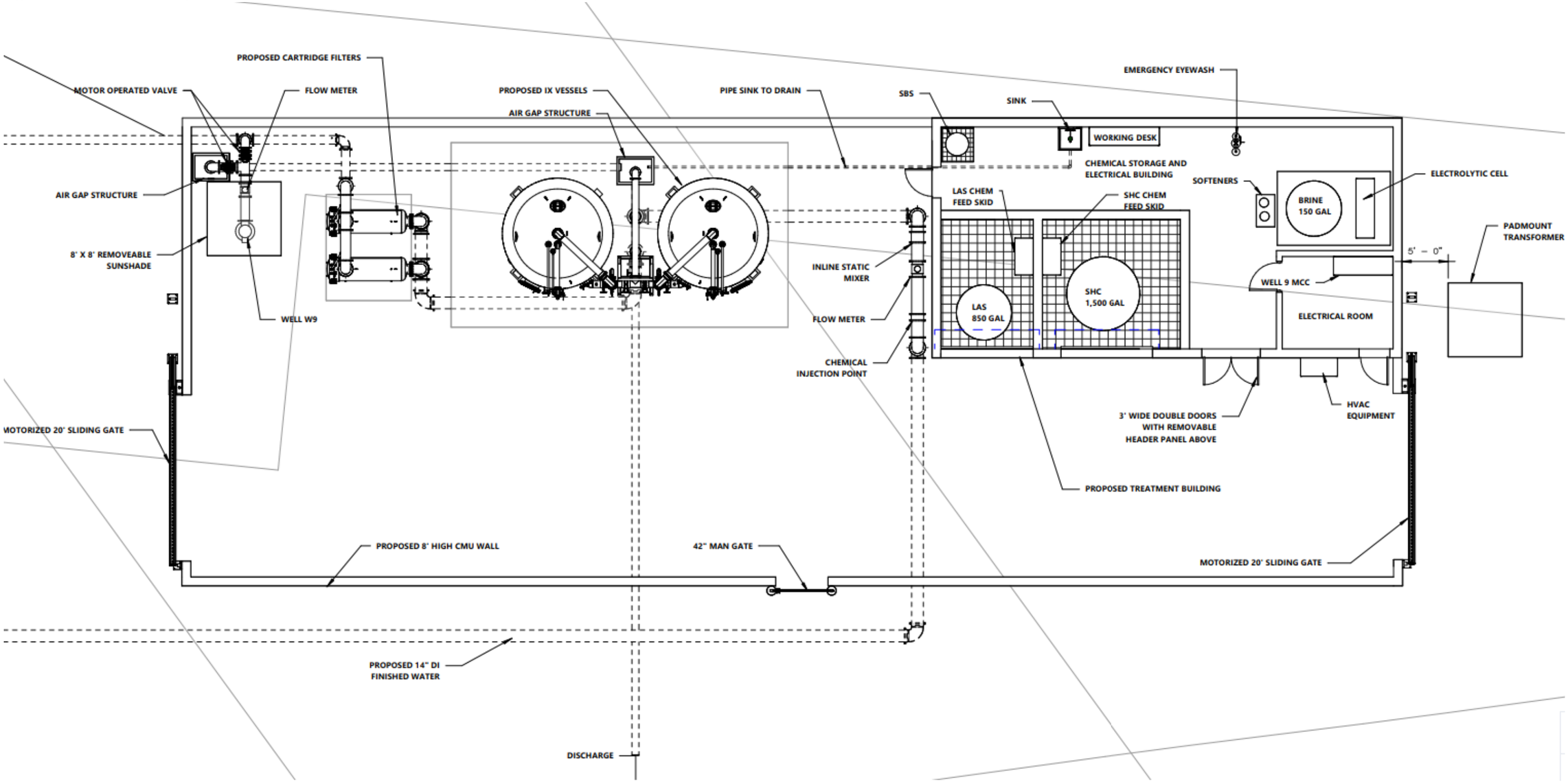
The project would also involve installation of an approximately 200-foot discharge pipeline, which would convey treated, discharged groundwater from the treatment facility to San Francisquito Creek. The project may include the installation of rip-rap or other energy-dissipating features at the terminus of the discharge pipeline, which would not exceed an area of 50 by 50 feet.

ELECTRICAL UPGRADES

To accommodate increased load demand for the new well pump and PFAS treatment equipment, existing pole-mounted transformers would be replaced with a pad-mounted transformer located adjacent to the treatment facility. In addition, new underground conduits and wires would be routed to the existing Well W9 site from existing underground utilities in nearby roadways.

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Figure 5 Conceptual Layout of Proposed Groundwater Treatment Facility



Source: Woodard and Curran 2025

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Well W10 Site

The following project components would occur at the existing Well W10 site, shown in Figure 3.

WELL W10 REHABILITATION

Well W10 would be rehabilitated. Rehabilitation would involve removal of existing well equipment and installation of a new vertical turbine, 12-inch well pump, a 300 horsepower motor, and electrical equipment. The rehabilitated Well W10 would have a design flow capacity of 1,500 gpm.

As described above under "Well W9 Rehabilitation," the project includes converting the existing tablet chlorination system at Well W10 to a chloramine-based disinfection system consisting of disinfection with liquid sodium hypochlorite followed by chloramine formation utilizing liquid ammonium sulfate.

ELECTRICAL UPGRADES

To accommodate increased load demand for the new well pump, existing pole-mounted transformers would be replaced with a pad-mounted transformer located adjacent to the treatment facility. In addition, new underground conduits and wires would be routed to the existing Well W10 site from existing underground utilities in nearby roadways.

Pipeline and Access Road

The following project components would generally occur along the raw water pipeline and access road alignment, as shown in Figure 2 and Figure 3.

RAW WATER PIPELINE INSTALLATION

The project involves installation of a raw water pipeline between Well W10 and W9 to convey groundwater extracted via Well W10 to the proposed treatment facility at the Well W9 site. The pipeline would be 12 inches in diameter and would consist of approximately 8,000 linear feet of ductile iron pipe. The pipeline alignment is currently proposed to be within the San Francisquito Creek Trail and would follow the trail's alignment from the Well W10 site to the Well W9 site and the proposed treatment facility. The pipeline's ultimate alignment may vary slightly but would be located within the Maximum Project Boundary. The pipeline would be primarily installed via open-cut excavation along the San Francisquito Creek Trail; the segment of the pipeline that crosses the Decoro Drive bridge would be installed via trenchless technology methods (jack-and-bore, horizontal directional drilling, etc.). Trenchless installation entry and exit pits would be located north and south of Decoro Drive, respectively, and would be located within the Maximum Project Boundary. Pits would be approximately 40 feet by 40 feet in area with a maximum depth of 20 feet.

Installation of the raw water pipeline would occur over approximately 12 weeks. If the pipeline alignment is within the San Francisquito Creek Trail, pipeline installation would require partial or full closure of the trail. For a conservative analysis, it is assumed this segment of the San Francisquito Creek Trail would be fully closed for 12 weeks. The trail would be repaved in accordance with the City of Santa Clarita's requirements upon completion of construction.

ACCESS ROUTE IMPROVEMENTS

Maintenance vehicles currently access the Well W9 site using San Francisquito Creek Trail via Copper Hill Drive. The trail is 16 feet wide and relatively straight, which can accommodate light-duty

maintenance vehicles. However, the treatment facility would require resin change outs once or twice per year, which would require a slurry truck 55-feet in length to travel to the treatment facility. There are several places along the trail that would not accommodate a slurry truck's length, and there is not currently a feasible area for a truck to turn around at the Well W9 site. To allow for truck access to the treatment facility, the existing access easement would be expanded in three locations: near the access road entrance off Copper Hill Drive, along the trail near Village Circle Drive, and at the Well W9 site. Trucks would drive along the San Francisquito Creek Trail and adjacent gravel areas. Minor grading work may be required to expand the easement and allow truck travel.

Construction

Construction of the proposed project would occur over approximately 30 months. Construction of the proposed project would typically take place between 7:00 a.m. to 4:00 p.m. on Monday to Friday. Nighttime construction may be required between 8:30 p.m. and 4:30 a.m. on Mondays through Saturdays. Temporary lighting may be used during nighttime construction of the pipeline, and lighting would be directed downward towards the working area.

The maximum depth of excavation for construction for the proposed project would be 12 feet, except for the trenchless installation pits which would have a maximum depth of 20 feet. Soil excavated from the site would be used as fill, where feasible, and excess soil would be transported using haul trucks with a capacity of 16 cubic yards and disposed of at the Sunshine Canyon Landfill or another local landfill. The project could require temporary closure of the San Francisquito Creek Trail during pipeline installation. Project construction would not require temporary roadway lane closures. Construction access to the Well W9 site would be provided by Copper Hill Drive and the San Francisquito Creek Trail. Construction materials would be staged on existing gravel areas at the Well W9 site.

Project construction is not anticipated to require groundwater dewatering. However, if groundwater is unexpectedly encountered during excavations, SCV Water would obtain coverage under the appropriate National Pollutant Discharge Elimination System (NPDES) Permit for discharge to surface water bodies (i.e., San Francisquito Creek) and would comply with the water quality requirements outlined in the permit, which may necessitate treatment prior to discharge to be protective of surface water quality.

Following completion of project construction, Wells W9 and W10 and the treatment facility would be flushed, and water produced during flushing would be treated, as necessary, and discharged to San Francisquito Creek. This discharge would be subject to compliance with SCV Water's existing coverage under Waste Discharge Requirements Order WQ 2014-0194-DWQ/General Order No. CAG140001 (ID: 4DW0430), which is the Statewide NPDES Permit for Drinking Water System Discharges to Waters of the United States.

Operation and Maintenance

Under the proposed project, Wells W9 and W10 would be reactivated, and the proposed groundwater treatment facility would be brought online. The treatment facility would operate 24 hours a day, seven days a week, 365 days a year with a maximum flow rate of 2,000 gpm. The two well pumps would be individually controlled and monitored through the supervisory control and data acquisition system, allowing SCV Water to turn on one or both well pumps at the same time. It is anticipated that up to approximately 3,230 acre-feet per year of groundwater would be pumped, depending on hydrologic year type and in consideration of GSP implementation constraints. Annual groundwater pumping rates under this project for the two wells would be consistent with historical pumping rates for Wells W9 and W10 and would not exceed the pumping quantities provided in the groundwater level simulations used in the GSP. Routine flushing of the wells would be required. When the well starts up, water would be flushed for approximately 10 minutes. If the well has been offline for an extended period of time, water would be flushed for approximately two hours. Water used for routine flushing would be treated, as necessary, and discharged to San Francisquito Creek and would be subject to compliance with SCV Water's existing coverage under Waste Discharge Requirements Order WQ 2014-0194-DWQ/General Order No. CAG140001 (ID: 4DW0430), which is the Statewide NPDES Permit for Drinking Water System Discharges to Waters of the United States.

Project operation would require daily site visits by SCV Water staff, which would be integrated into existing staff rounds, and weekly chemical deliveries, which would be integrated into routine chemical deliveries. Resin change-outs would occur approximately every nine to 12 months. No new employees would be needed to operate the project.

The project would result in a net increase in electricity consumption due to the additional energy required to pump groundwater through the groundwater treatment facility. Southern California Edison would be the electricity provider. Operation of the proposed project would require approximately 770 to 900 kilowatt-hours (kWh) of electricity daily, or approximately 280 to 330 megawatt-hours (MWh) annually.[1]

Sodium hypochlorite (chlorine) and liquid ammonium sulfate would be stored at the proposed facility in a completely enclosed structure with proper containment and venting. Sodium hypochlorite is a liquid disinfection agent added to the water and is commonly referred to as "bleach." Sodium hypochlorite is not the equivalent of chlorine gas, and chlorine gas would not be used or released during project operation. The chemicals stored on site would not be classified as hazardous due to low concentrations of ammonia and chlorine. In accordance with standard operating practice, SCV Water would submit an emergency response/contingency plan as part of a Hazardous Materials Business Plan to the California Environmental Reporting System for the proposed facility.

9. Surrounding Land Uses and Setting

Surrounding land uses in the project site vicinity include the following:

- **APN 2810-002-101:** The portion of the project site within this property is surrounded by San Francisquito Creek to the north and east; Decoro Drive to the south; and the San Francisquito Creek Trail and single family residences to the west. The nearest residences are located approximately 500 feet northwest of the Well W9 site.

[1] Electricity estimate based on 12-month billing period for a similar SCV Water groundwater treatment and disinfection facility for Lost Canyon Wells.

- **APN 2810-067-008:** The portion of the project site within this property is in a commercial area. Restaurants are located to the north and west, and tennis courts are located further to the north; the San Francisquito Creek Trail and San Francisquito Creek are located to the east and Newhall Ranch Road is to the south.
- **Public Right-of-Way of San Francisquito Creek Trail.** The trail is surrounded by San Francisquito Creek to the east and primarily single family residences to the west. South of Decoro Drive, Valencia High School is located to the west of the trail; near the terminus of the project alignment, tennis courts and commercial areas are located to the west of the trail.

10. Other Public Agencies Whose Approval is Required

SCV Water is the lead agency for this project. According to Government Code Section 53091, building and zoning ordinances of a county or city shall not apply to the location or construction of facilities for the production, generation, storage, treatment, or transmission of water. As such, the project would not be subject to the City of Santa Clarita's building and zoning ordinances (Santa Clarita Municipal Code Titles 17 and 18).

Permits/approvals would be required for the proposed project from the following agencies:

- City of Santa Clarita Encroachment Permit
- State Water Resources Control Board Division of Drinking Water Domestic Water Supply Permit
- Coverage under the State Water Resources Control Board NPDES Construction General Permit (Order No. 2022-0057-DWQ)
- California Occupational Safety and Health Administration Excavation Permit

Depending on the ultimate location of rip-rap or other energy-dissipating features at the terminus of the discharge pipeline, the project may also require the following permits:

- Lake and Streambed Alteration Agreement from the California Department of Fish and Wildlife
- Section 401 Water Quality Certification from the Los Angeles Regional Water Quality Control Board

11. Have California Native American Tribes Traditionally and Culturally Affiliated with the Project Area Requested Consultation Pursuant to Public Resources Code Section 21080.3.1?

On June 23, 2025, SCV Water distributed Assembly Bill (AB) 52 consultation letters for the proposed project, including project information, map, and contact information, to four Native American tribes locally and culturally affiliated with the project area. SCV Water received a request for consultation from the Fernandeño Tataviam Band of Mission Indians (FTBMI) on July 17, 2025. No other responses were received from other tribes, and the consultation window closed on July 23, 2025. Section 18, *Tribal Cultural Resources*, provides further information regarding the tribal consultation process.

Environmental Factors Potentially Affected

This project would potentially affect the environmental factors checked below, involving at least one impact that is "Potentially Significant" or "Less than Significant with Mitigation Incorporated" as indicated by the checklist on the following pages.

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

Determination

Based on 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 to 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 "less than significant with mitigation incorporated" impact on the environment, but at least one effect (1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and (2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.

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☐ I find that although the proposed project could have a significant effect on the environment, because all potential 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.

Signed by: Yoganathan Thierumaran 119EEAA0BA024BC...	9/30/2025
Signature	Date
Yoganathan Thierumaran	Senior Engineer
Printed Name	Title

Environmental Checklist

1 Aesthetics

	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 a 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 that would adversely affect daytime or nighttime views in the area?	☐	☐	■	☐

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

According to the City's General Plan Conservation and Open Space Element, scenic vistas (termed "viewsheds") are defined by physical features that frame the boundaries or context of one or more scenic resources and may include views of both natural and built environments. The City defines "scenic resources" as natural open spaces, topographic formations, and landscapes that contribute to a high level of visual quality, including lakes, rivers and streams, mountain meadows, oak woodlands, parks, trails, nature preserves, sculpture gardens, and similar features (City of Santa Clarita 2011). The project site is adjacent to San Francisquito Creek, which may be considered a scenic vista under the City's General Plan. In addition, the project site is within and is visible from the San Francisquito Creek Trail, which offers views of the adjacent creek to the east and rolling hills and mountains which surround the city. The surrounding mountains include the Santa Susana Mountains to the south and west, the San Gabriel Mountains to the southeast, and the Sierra Pelona Mountains to the north, all of which are part of the Transverse Ranges (City of Santa Clarita 2011).

The project would rehabilitate the existing Well W9 and W10 sites, and all proposed aboveground project components would be enclosed within concrete masonry units in the same general footprint and approximately the same height as existing structures. As a result, the project components would not block middle or background views from viewers on San Francisquito Trail or in the surround area. In addition, the proposed water treatment facility would be adjacent to the existing Well W9 structure in a disturbed area. The treatment facility would be visually consistent with the existing well structure, although the concrete masonry unit treatment building would be approximately 80 feet by 60 feet in area and 30 feet in height. While this is larger than existing infrastructure in the vicinity, it would not substantially affect publicly-accessible views from San Francisquito Creek Trail. Short-range views of San Francisquito Creek and long-range views of mountain ranges would remain available from other points along the trail. In addition, long-range views available from the trail are currently interrupted by commercial and residential development east of the creek and trail. Therefore, the wells and treatment facility would not substantially affect publicly-accessible views of San Francisquito Creek and mountain ranges from the San Francisquito Creek Trail. The proposed pipeline would be completely belowground, and would have no potential to affect scenic resources. Therefore, the project would not have a substantial adverse effect on a scenic vista, and impacts would be less than significant.

LESS-THAN-SIGNIFICANT IMPACT

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

According to the California Department of Transportation (Caltrans), there are no officially designated State scenic highways within the vicinity of the project site (Caltrans 2018). The nearest eligible State scenic highway is State Route (SR) 2 (Angeles Crest Highway), approximately 24 miles southeast of the project site. Due to the distance and intervening topography between SR 2 and the project site, the project would not be visible from this highway. Therefore, no impact to scenic resources within view of a state scenic highway would occur.

NO IMPACT

c. Would the project, 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 a 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?

According to Public Resources Code Section 21071(a), Santa Clarita is classified as an urbanized area because its population is more than 100,000 persons. The project site includes areas zoned as Open Space and North Valencia II Commercial (City of Santa Clarita 2011). According to Government Code Section 53091, building and zoning ordinances of a county or city shall not apply to the location or construction of facilities for the production, generation, storage, treatment, or transmission of water. As such, the project would not be subject to the City's building and zoning ordinances (Santa Clarita Municipal Code Titles 17 and 18). Although the project would be required to obtain a permit from the Santa Clarita City Manager prior to any vegetation removal (Santa Clarita Municipal Code Section 14.10.060), this permit does not specifically relate to scenic quality. Therefore, the primary regulations governing scenic quality applicable to the project site are contained in the City's General Plan Conservation and Open Space Element.

The project would not alter the scenic character of local topographic features, view corridors, major water bodies, oak woodlands, coastal sage, or views from designated routes, gateways, and vista points along roadways because none are present at or near the project site. Therefore, the project would be potentially consistent with Objectives CO 6.1 through 6.6 in the City's General Plan Conservation and Open Space Element. Furthermore, pursuant to Objective CO 6.6 and its related policies in the City's General Plan Conservation and Open Space Element, the project would not result in significant adverse impacts to the scenic environment related to lighting (discussed under threshold [d] below), air pollution (discussed in Section 3, *Air Quality*), billboards, scenic viewpoints or viewsheds (discussed under threshold [a] above), and aboveground utility lines (City of Santa Clarita 2011). Therefore, the project would not conflict with applicable zoning and other regulations governing scenic quality. There would be no impact.

NO IMPACT

d. Would the project create a new source of substantial light or glare that would adversely affect daytime or nighttime views in the area?

Construction of the proposed project would occur over approximately 24 months. Construction of the proposed project would typically take place Monday to Friday between 7:00 a.m. to 4:00 p.m. Nighttime construction may be required to install the proposed pipeline along San Francisquito Creek Trail between 8:30 p.m. and 4:30 a.m. on Mondays through Saturdays. Project construction would generally occur during daytime hours and would generally not require the use of lighting. As described under "Construction" in the Project Description, nighttime lighting would be temporary and would be directed downward to avoid light spilling outside of the working area. Consequently, temporary and short-term construction lighting would not constitute a substantial new light source with the potential to adversely affect nighttime views in the area. Therefore, construction activities would not create a new source of substantial light or glare that would adversely affect daytime or nighttime views in the vicinity of the project site. Impacts would be less than significant.

Upon completion of construction, none of the proposed project components would produce glare. Exterior lighting fixtures would need to comply with the City's Outdoor Lighting Standards within Section 17.51.050 of the Municipal Code. These standards include ensuring all lighting fixtures are directed downward and designed so the luminary and/or lens does not protrude below the luminary housing and is not visible from a public right-of-way. The facility would primarily be accessed during daytime hours and would rarely be accessed at night (typically only during emergency situations), at which time the lighting would be utilized. Therefore, project operation would not create a new source of substantial light or glare that would adversely affect daytime or nighttime views. Impacts would be less than significant.

LESS-THAN-SIGNIFICANT IMPACT

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2 Agriculture and Forestry Resources

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than - Significant Impact	No Impact
Would the project:				
a. Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on 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?	☐	☐	☐	■

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

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

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))?

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

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 includes areas zoned as Open Space and North Valencia II Commercial (City of Santa Clarita 2011). According to the California Department of Conservation's (DOC) Farmland Mapping and Monitoring Program, the project site is designated as Urban and Built-Up Land and Grazing Land (DOC 2025). The project site is surrounded by commercial, public and quasi-public and residential development to the west including Valencia High School, San Francisquito Creek to the east, Newhall Ranch Road to the south, and West Creek Park to the north. As such, the project would not convert land designated as Prime Farmland, Unique Farmland, or Farmland of Statewide Importance to non-agricultural use. The project site is not zoned for agricultural use, timberland or forest land; is not under a Williamson Act Contract; and does not contain forest land. The project site is not located adjacent to farmland or forestland; therefore, the project would not lead to the conversion of these types of land to non-agricultural or non-forest uses, respectively. Therefore, no impact to agriculture and forestry resources would occur.

NO IMPACT

3 Air Quality

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than - Significant Impact	No Impact
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?	☐	☐	■	☐

Overview of Air Pollution

The federal and State Clean Air Acts (CAA) mandate the control and reduction of certain air pollutants. Under these laws, the United States Environmental Protection Agency (USEPA) and the California Air Resources Board (CARB) have established the National Ambient Air Quality Standards (NAAQS) and the California Ambient Air Quality Standards (CAAQS) for "criteria pollutants" and other pollutants. Some pollutants are emitted directly from a source (e.g., vehicle tailpipe, an exhaust stack of a factory) into the atmosphere, including carbon monoxide, volatile organic compounds (VOC)/reactive organic gases (ROG),[2] nitrogen oxides (NO_X), particulate matter with diameters of ten microns or less (PM_{10}) and 2.5 microns or less ($PM_{2.5}$), sulfur dioxide, and lead. Other pollutants are created indirectly through chemical reactions in the atmosphere, such as ozone, which is created by atmospheric chemical and photochemical reactions primarily between ROG and NO_X. Air pollutants can also be generated by the natural environment, such as when high winds suspend fine dust particles. Secondary pollutants include oxidants, ozone, and sulfate and nitrate particulates (smog).

Air pollutant emissions are generated primarily by stationary and mobile sources. Stationary sources can be divided into two major subcategories:

- Point sources occur at a specific location and are often identified by an exhaust vent or stack. Examples include boilers or combustion equipment that produce electricity or generate heat.

[2] CARB defines VOC and ROG similarly as, "any compound of carbon excluding carbon monoxide, carbon dioxide, carbonic acid, metallic carbides or carbonates, and ammonium carbonate," with the exception that VOC are compounds that participate in atmospheric photochemical reactions. For the purposes of this analysis, ROG and VOC are considered comparable in terms of mass emissions, and the term VOC is used in this IS-MND.

- Area sources are widely distributed and include such sources as residential and commercial water heaters, painting operations, lawn mowers, agricultural fields, landfills, and some consumer products.

Mobile sources refer to emissions from motor vehicles, including tailpipe and evaporative emissions, and can also be divided into two major subcategories:

- On-road sources that may be legally operated on roadways and highways.
- Off-road sources include aircraft, ships, trains, and self-propelled construction equipment.

Air Quality Standards and Attainment

The project site is located in the South Coast Air Basin (SCAB), which includes the non-desert portions of Los Angeles, Riverside, and San Bernardino Counties, and all of Orange County. The SCAB is under the jurisdiction of the South Coast Air Quality Management District (SCAQMD). As the local air quality management agency, SCAQMD must monitor air pollutant levels to ensure that the NAAQS and CAAQS are met, and if they are not met, to develop strategies to meet the standards.

Depending on whether the standards are met or exceeded, the SCAB is classified as being in "attainment" or "nonattainment." In areas designated as nonattainment for one or more air pollutants, a cumulative air quality impact exists for those air pollutants. The human health effects associated with these criteria pollutants, presented in Table 1, are already occurring in those areas as part of the environmental baseline condition. Under state law, air districts are required to prepare a plan for air quality improvement for pollutants for which the district is in non-compliance. The SCAB is in nonattainment for the ozone and $PM_{2.5}$ federal standards. Also, the SCAB is in nonattainment for the state standard for PM_{10} and designated unclassifiable or in attainment for all other federal and state standards (CARB 2023). The nonattainment statuses result from several factors. These factors include the combination of emissions from a large urban area, the regional meteorological conditions adverse to the dispersion of air pollution emissions, and the mountainous terrain surrounding the SCAB that traps pollutants (SCAQMD 2022).

Table 1 Health Effects Associated with Criteria Pollutants

Pollutant	Adverse Effects
Ozone	(1) Short-term exposures: (a) pulmonary function decrements and localized lung edema in humans and animals and (b) risk to public health implied by alterations in pulmonary morphology and host defense in animals; (2) long-term exposures: risk to public health implied by altered connective tissue metabolism and altered pulmonary morphology in animals after long-term exposures and pulmonary function decrements in chronically exposed humans; (3) vegetation damage; and (4) property damage.
Carbon monoxide (CO)	Reduces oxygen delivery leading to: (1) aggravation of chest pain (angina pectoris) and other aspects of coronary heart disease; (2) decreased exercise tolerance in persons with peripheral vascular disease and lung disease; (3) impairment of central nervous system functions; and (4) possible increased risk to fetuses.
Nitrogen dioxide (NO_2)	(1) Potential to aggravate chronic respiratory disease and respiratory symptoms in sensitive groups; (2) risk to public health implied by pulmonary and extra-pulmonary biochemical and cellular changes and pulmonary structural changes; and (3) contribution to atmospheric discoloration.
Sulfur dioxide (SO_2)	(1) Bronchoconstriction accompanied by symptoms that may include wheezing, shortness of breath, and chest tightness during exercise or physical activity in persons with asthma.
Suspended particulate matter (PM_{10})	(1) Excess deaths from short-term and long-term exposures; (2) excess seasonal declines in pulmonary function, especially in children; (3) asthma exacerbation and possibly induction; (4) adverse birth outcomes including low birth weight; (5) increased infant mortality; (6) increased respiratory symptoms in children such as cough and bronchitis; and (7) increased hospitalization for both cardiovascular and respiratory disease (including asthma).[1]
Suspended particulate matter ($PM_{2.5}$)	(1) Excess deaths from short- and long-term exposures; (2) excess seasonal declines in pulmonary function, especially in children; (3) asthma exacerbation and possibly induction; (4) adverse birth outcomes, including low birth weight; (5) increased infant mortality; (6) increased respiratory symptoms in children, such as cough and bronchitis; and (7) increased hospitalization for both cardiovascular and respiratory disease, including asthma.
Lead	(1) Short-term overexposures: lead poisoning can cause (a) anemia, (b) weakness, (c) kidney damage, and (d) brain damage; (2) long-term exposures: long-term exposure to lead increases risk for (a) high blood pressure, (b) heart disease, (c) kidney failure, and (d) reduced fertility.

Source: United States Environmental Protection Agency (US EPA) 2024

Air Quality Management

Since the SCAB currently exceeds the ozone and $PM_{2.5}$ NAAQS standard, the SCAQMD is required to implement strategies to reduce pollutant levels to achieve attainment of the NAAQS. The SCAQMD 2022 Air Quality Management Plan (2022 AQMP) is a regional blueprint designed to meet the NAAQS and demonstrate how attainment will be reached. The 2022 AQMP represents a thorough analysis of existing and potential regulatory control options, includes available, proven, and cost-effective strategies, and seeks to achieve multiple goals in partnership with other entities promoting reductions in greenhouse gases and toxic risk, as well as efficiencies in energy use, transportation, and goods movement. The prior AQMP, published in 2016, determined that, with implementation of the proposed control strategy, the SCAB could expect to reach attainment of the 1997 8-hour ozone standard by July 15, 2024, and the 2012 annual $PM_{2.5}$ standard by 2025. The 2006 24-hour $PM_{2.5}$ did not meet the attainment date of December 31, 2019, which required SCAQMD to revise the plan to meet the standard as early as possible. SCAQMD's 2022 AQMP, an update to the 2016 AQMP, was developed to identify and implement strategies and control measures to meet the 2015 8-hour ozone NAAQS as expeditiously as practicable, but no later than the statutory attainment deadline of August 3, 2038 for the SCAB (SCAQMD 2022).

Air Emission Thresholds

The SCAQMD approved the *CEQA Air Quality Handbook* in 1993. Since then, the SCAQMD has provided supplemental guidance on its website to address changes to the methodology and nature of CEQA since the publication of the Handbook. Some of these changes include recommended thresholds for emissions associated with both construction and operation of a project and are used to evaluate a project's potential regional and localized air quality impacts (SCAQMD 2023).

Regional Thresholds

Table 2 presents the SCAQMD significance thresholds for regional construction and operational-related criteria air pollutant and precursor emissions being used for the purposes of this analysis.

Table 2 Air Quality Thresholds of Significance

Pollutant	Construction (pounds per day)	Operation (pounds per day)
NO_x	100	55
VOC	75	55
PM_{10}	150	150
$PM_{2.5}$	55	55
SO_x	150	150
CO	550	550

NO_x = Nitrogen Oxides; VOC = Volatile Organic Compounds; PM_{10} = Particulate Matter with a diameter no more than 10 microns; $PM_{2.5}$ = Particulate Matter with a diameter no more than 2.5 microns; SO_x = Sulfur Oxide; CO = Carbon Monoxide

Source: SCAQMD 2023

Localized Significance Thresholds

In addition to the above regional thresholds, the SCAQMD has developed Localized Significance Thresholds (LSTs) in response to the Governing Board's Environmental Justice Enhancement Initiative (1-4). LSTs were devised in response to concern regarding exposure of individuals to criteria pollutants in local communities and have been developed for NO_X, CO, PM_{10}, and $PM_{2.5}$. LSTs represent the maximum emissions from a project that will not cause or contribute to an air quality exceedance of the most stringent applicable federal or State ambient air quality standard at the nearest sensitive receptor by taking into consideration ambient concentrations in each SRA, distance to the sensitive receptor, and project size. LSTs have been developed for emissions generated in construction areas up to five acres in size. However, LSTs only apply to emissions in a fixed stationary location and are not applicable to mobile sources, such as cars on a roadway (SCAQMD 2009).

The project site is located within SRA 13 (Santa Clarita Valley). SCAQMD provides LST lookup tables for project sites that measure one, two, or five acres. The construction area of the project site is approximately 1.6 acres. Therefore, the LST analysis conservatively uses one-acre LSTs. LSTs are provided for receptors at a distance of 82 feet (25 meters), 164 feet (50 meters), 328 feet (100 meters), 656 (200 meters), and 1,640 feet (500 meters) from the project disturbance boundary to the sensitive receptors. The border of construction activity would occur approximately 35 feet from single-family residences located west of the project site along Cherry Blossom Court near Decoro Drive. According to the SCAQMD's publication, *Final LST Methodology*, projects with boundaries located closer than 82 feet to the nearest receptor should use the LSTs for receptors located at 82 feet (SCAQMD 2009). LSTs for construction and operation in SRA 13 on a one-acre site with a receptor 82 feet away are shown in Table 3.

Table 3 SCAQMD LSTs for Construction/Operation (SRA-13)

Pollutant	Allowable Emissions from a One-acre Site in SRA-13 for a Receptor 82 Feet Away (lbs/day)
Gradual conversion of NO_X to NO_2	114/114
CO	590/590
PM_{10}	4/1
$PM_{2.5}$	3/1

lbs/day = pounds per day; NO_X = nitrogen oxides; NO_2 = nitrogen dioxide; PM_{10} = particulate matter measuring 10 microns or less in diameter; $PM_{2.5}$ = particulate matter measuring 2.5 microns or less in diameter; SCAQMD = South Coast Air Quality Management District

Allowable Emissions for a 1-acre Site in SRA-13 for a Receptor 82 Feet Away

Source: SCAQMD 2009

Toxic Air Contaminants

SCAQMD has developed significance thresholds for the emissions of toxic air contaminants (TACs) based on health risks associated with elevated exposure to such compounds. For carcinogenic compounds, cancer risk is assessed in terms of incremental excess cancer risk. A project would result in a potentially significant impact if it would generate an incremental excess cancer risk of 10 in 1 million (1×10^{-6}) or a cancer burden of 0.5 excess cancer cases in areas exceeding a one-in-one-million risk. In addition, non-carcinogenic health risks are assessed in terms of a hazard index. A project would result in a potentially significant impact if it would result in a chronic and acute hazard index greater than 1.0 (SCAQMD 2023).

Methodology

Air pollutant emissions generated by project construction and operation were estimated using the California Emissions Estimator Model (CalEEMod), version 2022.1.1. CalEEMod uses project-specific information, including the project's land uses, square footage for different uses (e.g., warehouse, office and parking), and location, to model a project's construction and operational emissions. The analysis reflects the construction and operation of the project as described under Section 8 of the Project Description.

Construction emissions modeled include emissions generated by construction equipment used on-site and vehicle trips associated with construction, such as worker and vendor trips. CalEEMod estimates construction emissions by multiplying the time equipment is in operation by emission factors. CalEEMod defaults were used to estimate quantities and hours of operation for each construction phase. Construction of the proposed project was analyzed based on the estimated construction schedule, equipment lists, and site plans. As discussed in the Project Description, construction activity would occur for approximately 24 months. For modeling purposes, construction was assumed to begin in January 2026.

During the grading phase, the majority of excavated soil would be used as fill on site. Although the quantity of material to be exported is unknown at this time, this analysis conservatively assumes that half (2,972 cubic yards) of all excavated material would be exported to a local landfill. The project assumes construction equipment used would be diesel-powered and would comply with applicable regulatory standards. In particular, the project would comply with SCAQMD Rule 403 for dust control measures and Rule 1113 for architectural coating VOC limits.

The proposed uses were assigned the following land uses based on the *CalEEMod User Guide*: new impervious surfaces were assumed as "Parking – Non-Asphalt Surfaces", and the chemical feed system building was assumed as "Industrial – General Light Industry".

Operational emissions modeled typically include mobile source emissions (i.e., vehicle emissions), energy emissions, and area source emissions. Mobile source emissions are generated by vehicle trips to and from the project site. However, as discussed in Section 8 of the Project Description, maintenance and operations trips to the site would be integrated into SCV's regular maintenance routine and would not constitute an increase in vehicle trips. Nonetheless, modeling accounts for up to two heavy-duty truck trips per year for the treatment facility resin change-outs. Emissions attributed to energy use would not occur on site because the project would not include natural gas connections. Electricity consumed by the project would be generated off-site and would not directly result in air pollutant emissions. Area source emissions are generated by landscape maintenance equipment, consumer products, and architectural coatings.

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

A project may be inconsistent with the AQMP if it would generate population, housing, or employment growth exceeding forecasts used in the development of the AQMP. The 2022 AQMP, the most recent AQMP adopted by the SCAQMD, incorporates local city general plans and the Southern California Association of Governments (SCAG) 2020 RTP/SCS socioeconomic forecast projections of regional population, housing, and employment growth (SCAQMD 2022; SCAG 2020).

The proposed project would involve the construction and operation of a groundwater treatment facility and associated pipelines. The purpose of the project is to offset imported water use by bringing local water supply facilities back online; the project would not increase overall groundwater supply. Therefore, the proposed project would not directly increase the city's population since it does not involve the construction of housing and would not indirectly facilitate growth since it would not increase water supplies. Additionally, no new employees would be needed to operate the project. Therefore, potential indirect population and employment growth generated by the project would be within the respective SCAG growth forecasts for the City of Santa Clarita. The project would be consistent with the 2022 AQMP and there would be no impact.

NO IMPACT

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 SCAB has been designated as a federal nonattainment area for ozone and $PM_{2.5}$ and a state nonattainment area for ozone, PM_{10}, and $PM_{2.5}$. The SCAB is designated unclassifiable or in attainment for all other federal and state standards.

Construction Emissions

Project construction would generate temporary air pollutant emissions associated with fugitive dust (PM_{10} and $PM_{2.5}$) and exhaust emissions from heavy construction equipment and construction vehicles in addition to VOC emissions that would be released during the drying of architectural coating and paving phases. Table 4 summarizes the estimated maximum daily emissions of pollutants during project construction. As shown therein, construction-related emissions would not exceed SCAQMD thresholds. Therefore, project construction would not result in a cumulatively considerable

net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or State ambient air quality standard. Impacts would be less than significant.

Table 4 Project Construction Emissions

	Maximum Daily Emissions (lbs/day)				
Year	**TOG[1]**	**NO_X**	**CO**	**PM_{10}**	**$PM_{2.5}$**
2026	4	18	19	1	1
2027	3	14	17	1	1
SCAQMD Threshold	75	100	550	150	55
Exceed SCAQMD Threshold?	**No**	**No**	**No**	**No**	**No**

[1] Total Organic Gases (TOG) were conservatively compared to SCAQMD thresholds for VOC because CalEEMod version 2022.1 does not display VOC emissions.

lbs/day = pounds per day; TOG = total organic gases; NO_x = nitrogen oxide; CO = carbon monoxide; PM_{10} = particulate matter with a diameter no more than 10 microns; $PM_{2.5}$ = particulate matter with a diameter no more than 2.5 microns

Note: Some numbers may not add up precisely due to rounding. See Appendix A for complete modeling results.

For a conservative estimate of project emissions, construction and operational emissions were modeled during winter and summer, then reported for the maximum day during the winter or summer, whichever was highest. Maximum daily emission estimates were then compared to the SCAQMD thresholds measured in pounds-per-day.

Operational Emissions

Operation of the project would generate criteria air pollutant emissions associated with area sources (e.g., architectural coatings, consumer products, and landscaping equipment) and mobile sources (i.e., vehicle trips to and from the project site). Table 5 summarizes the project's maximum daily operational emissions by emission source. As shown therein, operational emissions would not exceed SCAQMD regional thresholds for criteria pollutants. Therefore, project operation would not result in a cumulatively considerable net increase of any criteria pollutant for which the project region is in non-attainment, and impacts would be less than significant.

Table 5 Project Operational Emissions

	Maximum Daily Emissions (lbs/day)					
Emission Source	**TOG[1]**	**NO_X**	**CO**	**SO_2**	**PM_{10}**	**$PM_{2.5}$**
Mobile	<1	<1	<1	<1	<1	<1
Area	<1	<1	<1	<1	<1	<1
Project Emissions	<1	<1	<1	<1	<1	<1
SCAQMD Regional Thresholds	55	55	550	150	150	55
Threshold Exceeded?	**No**	**No**	**No**	**No**	**No**	**No**

[1] Total Organic Gases (TOG) were conservatively compared to SCAQMD thresholds for VOC because CalEEMod version 2022.1 does not display VOC emissions.

lbs/day = pounds per day; TOG = total organic gases; NO_x = nitrogen oxide; CO = carbon monoxide; PM_{10} = particulate matter with a diameter no more than 10 microns; $PM_{2.5}$ = particulate matter with a diameter no more than 2.5 microns; SO_2 = sulfur oxide

Notes: Some numbers may not add up precisely due to rounding considerations. See Appendix A for complete modeling results.

LESS-THAN-SIGNIFICANT IMPACT

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

Carbon Monoxide Hotspots

A CO hotspot is a localized concentration of CO that is above a CO ambient air quality standard. The SCAB has been attaining federal CO standards since 2007, and most air quality monitoring stations no longer report CO levels (SCAQMD 2017). The nearest monitoring station from the project site measured maximum 1-hour and 8-hour CO concentrations of 1.3 parts per million (ppm) and 0.7 ppm, respectively, in 2023 (SCAQMD 2024). These concentrations are well below the respective 1-hour and 8-hour standards of 20 ppm and 9 ppm. Typical water treatment projects, such as the project, do not emit the levels of CO necessary to result in a localized hot spot.

As discussed in Section 8 of the Project Description, maintenance and operations trips to the site would be integrated into SCV's regular maintenance routine and would not constitute an increase in vehicle trips. Nonetheless, modeling accounts for up to two heavy-duty truck trips per year for the treatment facility resin change-outs. The addition of two heavy-duty truck trips per year would represent a negligible increase in traffic volumes near the project site. Therefore, the project would not expose sensitive receptors to substantial CO pollutant concentrations and impacts would be less than significant.

Localized Significance Thresholds

Sensitive receptors in the project vicinity include single-family residences located west of the project site, ranging from 35 to 300 feet from the project site boundary. The project would not include the siting of new sensitive receptors. Localized air quality impacts to sensitive receptors typically result from localized criteria air pollutants and TACs. SCAQMD has developed LSTs to estimate exposure of individuals to criteria pollutants in local communities. Table 6 and Table 7 show the estimates of the on-site construction and operational emissions compared to the applicable LSTs. As shown therein, localized construction and operational emissions would not exceed SCAQMD LST thresholds for criteria pollutants. Therefore, project construction and operation would not result in a local air quality impact, and potential impacts would be less than significant.

Table 6 Project LST Construction Emissions

	Maximum Daily Emissions (lbs/day)					
Year	**VOC**	**NO_X**	**CO**	**SO_2**	**PM_{10}**	**$PM_{2.5}$**
Maximum On-site Emissions	4	18	19	<1	1	1
SCAQMD LST (82 feet away)	N/A	114	590	N/A	4	3
Threshold Exceeded?	**N/A**	**No**	**No**	**N/A**	**No**	**No**

lbs/day = pounds per day; VOC = volatile organic compounds; NO_x = nitrogen oxide; CO = carbon monoxide; PM_{10} = particulate matter with a diameter no more than 10 microns; $PM_{2.5}$ = particulate matter with a diameter no more than 2.5 microns; SO_2= sulfur oxide

Notes: Maximum on-site emissions are the highest emissions that would occur on the project site from on-site sources, such as heavy construction equipment and architectural coatings, and excludes off-site emissions from sources such as construction worker vehicle trips. Some numbers may not add up precisely due to rounding considerations.

Source: See CalEEMod worksheets in Appendix A

Table 7 Project LST Operational Emissions

Emission Source	Maximum Daily Emissions (lbs/day)					
	VOC	NO_X	CO	SO_2	PM_{10}	$PM_{2.5}$
Maximum On-site Emissions	<1	<1	<1	<1	<1	<1
SCAQMD LST	N/A	114	590	N/A	1	1
Threshold Exceeded?	**N/A**	**No**	**No**	**N/A**	**No**	**No**

lbs/day = pounds per day; VOC = volatile organic compounds; NO_x = nitrogen oxide; CO = carbon monoxide; PM_{10} = particulate matter with a diameter no more than 10 microns; $PM_{2.5}$ = particulate matter with a diameter no more than 2.5 microns; SO_2 = sulfur oxide

Source: See CalEEMod worksheets in Appendix A

Toxic Air Contaminants

Construction

Construction-related activities would result in temporary project-generated diesel particulate matter exhaust emissions from off-road, heavy-duty diesel equipment for site preparation, grading, building construction, and other construction activities. Generation of diesel particulate matter, which was identified as a TAC by CARB in 1998, from construction projects typically occurs in a single area for a short period. The proposed project's construction would occur in phases over less than 10 months with sensitive receptors approximately 35 feet from the project site. The dose to which the receptors are exposed is the primary factor used to determine health risk. Dose is a function of the concentration of a substance or substances in the environment and the extent of exposure that person has to the substance. Dose is positively correlated with time, and a more extended exposure period would result in a higher exposure level for the maximally exposed individual. The risks estimated for a Maximally Exposed Individual are higher if a fixed exposure occurs over a more extended period. According to the California Office of Environmental Health Hazard Assessment (OEHHA), health risk assessments, which determine the exposure of sensitive receptors to toxic emissions, should be based on a 30-year exposure period (assumed to be the approximate time that a person spends in a household). OEHHA recommends this risk be bracketed with 9-year and 70-year exposure periods. Health risk assessments should be limited to the period/duration of activities associated with the project (OEHHA 2019).

The maximum $PM_{2.5}$ emissions, which are used to represent DPM emissions for this analysis, would occur during infrastructure installation. While infrastructure installation emissions represent the worst-case condition, such activities would only occur for approximately 4.5 months, which is less than 4 percent, 1.2 and 0.6 percent of the typical health risk calculation period of 9 years, 30 years, and 70 years, respectively. $PM_{2.5}$ emissions would decrease for the remaining construction period because construction activities such as building construction and paving would require less construction equipment.

The proposed project would also be consistent with the applicable AQMP requirements and control strategies intended to reduce emissions from construction equipment and activities. The proposed project would comply with the CARB Air Toxics Control Measure that limits diesel powered equipment and vehicle idling to no more than five minutes at a location, and the CARB In-Use Off-Road Diesel Vehicle Regulation; compliance with these would minimize emissions of TACs during construction.

Given the above, DPM generated by project construction is not expected to create conditions where the probability that the Maximally Exposed Individual would contract cancer is greater than 10 in one million or to generate ground-level concentrations of noncarcinogenic TACs that exceed a Hazard Index greater than one in one million for the Maximally Exposed Individual. Construction impacts to sensitive receptors would be less than significant.

Operation

CARB's (2005) *Air Quality and Land Use Handbook: A Community Health Perspective* provides recommendations regarding the siting of new sensitive land uses near potential sources of air toxic emissions (e.g., freeways, distribution centers, rail yards, ports, refineries, chrome plating facilities, dry cleaners, and gasoline dispensing facilities). SCAQMD adopted similar recommendations in its *Guidance Document for Addressing Air Quality Issues in General Plans and Local Planning* (2005). The proposed project includes water treatment facilities, which are not identified as a land use emitting substantial TAC concentrations. The project does not include any stationary sources of TAC emissions, such as back-up generators. Although project operation would require resin replacement media up to two times a year, the use of diesel-fueled trucks for these activities would not represent a source of substantial TAC emissions given the limited and infrequent nature of these vehicle trips. Furthermore, truck drivers would be required to comply with the provisions of California Code of Regulations Title 13 Section 2485, which prohibits diesel-fueled commercial motor vehicles from idling for more than five minutes and would minimize on-site TAC emissions. Therefore, project operation would not expose sensitive receptors to substantial concentrations of TACs, and operational impacts would be less than significant.

LESS THAN SIGNIFICANT IMPACT

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

During construction activities, heavy equipment and vehicles would emit odors associated with vehicle and engine exhaust and during idling. However, these odors would be intermittent and temporary and would cease upon completion, and odors disperse with distance. In addition, project construction would be required to comply with SCAQMD Rule 402, which specifies that a person shall not discharge from any source whatsoever such quantities of air contaminants or other material which cause injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public. Overall, project construction would not generate other emissions, such as those leading to odors, affecting a substantial number of people. Construction-related impacts would be less than significant.

With respect to operation, the SCAQMD's *CEQA Air Quality Handbook* (1993) identifies land uses associated with odor complaints as agricultural uses, wastewater treatment plants, chemical and food processing plants, composting, refineries, landfills, dairies, and fiberglass molding. The project would not include any of the land uses that have been identified by the SCAQMD as odor sources. Therefore, the proposed project would not generate other emissions such as those leading to odors affecting a substantial number of people, and no operational impact would occur.

LESS THAN SIGNIFICANT IMPACT

4 Biological Resources

	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 Wildlife 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, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?	☐	■	☐	☐
c. Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	☐	■	☐	☐
d. Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	☐	■	☐	☐
e. Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	☐	■	☐
f. Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	☐	☐	☐	■

Regulatory authority over biological resources is shared by federal, State, and local authorities under a variety of statutes and guidelines. Primary authority for general biological resources lies within the land use control and planning authority of local jurisdictions (in this instance, the City of Santa Clarita). The California Department of Fish and Wildlife (CDFW) is a trustee agency for biological resources throughout the State under CEQA and also has direct jurisdiction under the California Fish and Game Code (CFGC). Under the California and federal Endangered Species Acts, CDFW and the United States Fish and Wildlife Service also have direct regulatory authority over species formally listed as threatened or endangered and species protected by the Migratory Bird Treaty Act.

The following analysis is based on the Biological Resources Assessment prepared for the project, which is included as Appendix B. For the purposes of this analysis, the Biological Study Area is comprised of project site plus a 200-foot buffer around the project boundary to capture potential direct and indirect impacts to biological resources. As part of the Biological Resources Assessment, Rincon conducted a field reconnaissance survey of the Study Area in April 2025.

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 Wildlife or U.S. Fish and Wildlife Service?

Special-status species are defined as those plants and animals that are:

- Species listed as threatened or endangered under the Federal Endangered Species Act; species that are under review may be included if there is a reasonable expectation of listing within the life of the project;
- Species listed as candidate, rare, threatened, or endangered under the California Endangered Species Act or Native Plant Protection Act;
- Species designated as Fully Protected, Species of Special Concern, or Watch List by the CFGC or CDFW;
- Species designated as locally important by the City and/or otherwise protected through ordinance or local policy; and/or
- Plants occurring on lists 1 through 4 of the California Native Plant Society California Rare Plant Rank system.

Special-Status Plant Species

The BRA evaluated the potential for 34 special-status plant species tracked by CDFW's California Natural Diversity Database (CNDDB) and California Native Plant Society to occur within the Survey Area. The assessment is based on the presence of suitable habitat as identified during the reconnaissance survey and existing knowledge of species occurrences and distributions in the region. Species that are not expected or have a low potential to occur in the Survey Aea are omitted from further discussion based on incompatible habitat conditions (e.g., vegetation assemblage, soils, topography, hydrology, and prior disturbances), or the absence of observations of readily-identifiable species (e.g., perennial herbs, shrubs, and/or trees) during the field reconnaissance survey. No special-status plant species were detected within the Study Area during the reconnaissance survey. Due to the lack of suitable habitat to support special status plant species, impacts to special status plants are not anticipated.

Special-Status Wildlife Species

45 special-status wildlife species, as tracked by the CNDDB and California Native Plant Society, have the potential to occur within the Study Area. This assessment was based on the presence of suitable habitat observed during the field survey, as well as existing data on species distributions and regional occurrences. Of the species evaluated, coastal whiptail (*Aspidoscelis tigris stejnegeri*, CDFW Species of Special Concern [SSC]) and coast horned lizard (*Phrynosoma blainvillii*, SSC) were determined to have a high potential to occur within the Study Area. Additionally, San Diego desert woodrat (*Neotoma lepida intermedia*, SSC), California legless lizard (*Anniella* spp., SSC), coastal California gnatcatcher *(Polioptila californica californica*, Federally Threatened [FT]), and least Bell's vireo (*Vireo bellii pusillus*, Federally Endangered [FE], State Endangered [SE]) were assessed as having a moderate potential to occur.

Suitable habitat for coastal whiptail, coast horned lizard, California legless lizard, and San Diego desert woodrat occurs within the bed and banks of San Francisquito Creek, as well as California sagebrush scrub, California buckwheat scrub, and chamise chaparral located beyond the creek's top of bank. These vegetation communities occur within the project site and could be directly impacted by project activities. As a result, direct impacts to these special-status species could occur if their habitat is removed or disturbed. In addition, if individuals are present during construction, indirect impacts may result from increased noise, vibrations, and dust. These disturbances could cause individuals to flush from cover, increasing their vulnerability to predation or vehicle strikes. Accordingly, impacts to special-status wildlife species are potentially significant and mitigation is required. With the implementation of Mitigation Measures BIO-1 through BIO-3, potential direct and indirect impacts to special-status wildlife species would be reduced to a less-than-significant level.

Nesting Birds

Within the Study Area, there is suitable nesting habitat for coastal California gnatcatcher in the California sagebrush scrub and California buckwheat scrub vegetation communities located along San Francisquito Creek. In addition, there is suitable nesting habitat for least Bell's vireo in the Study Area in the Fremont cottonwood woodland, red willow riparian woodland, and mulefat thickets vegetation communities. Direct impacts to these species could occur if nesting habitat is disturbed or removed during project activities. Additionally, indirect impacts may result from construction-related noise, dust, and human activity, which could lead to nest abandonment or failure. Impacts to nesting birds would be potentially significant. Potential impacts associated with the removal or disturbance of foraging or dispersal habitat would be less than significant, as there is an abundance of suitable foraging and dispersal habitat for both species along the San Francisquito Creek corridor.

The project site also contains habitat that may support special-status avian species, including resident and migratory passerine and raptors protected under the CFGC and the Migratory Bird Treaty Act. Although no nests were observed during the field reconnaissance survey, suitable nesting habitat is present in the trees and shrubs within and adjacent to the project site. Raptors may also nest within the taller trees in the area.

As such, the project could result in direct or indirect impacts to nesting avian species. Direct impacts may include mortality from vehicle or equipment strikes and physical disturbance to active nests. Indirect impacts from construction noise, vibrations, and dust could cause birds to flush from cover, increasing their exposure to predators or vehicle strikes. These disturbances may also lead to nest abandonment, egg or chick predation, or egg loss due to vibrations. Impacts to nesting birds and

special-status avian species are potentially significant, and Mitigation Measures BIO-4 and BIO-5 are required.

Mitigation Measures

BIO-1 Worker Environmental Awareness Program

Prior to initiation of all construction activities (including staging and mobilization), all personnel associated with project construction shall attend a Worker Environmental Awareness Program (WEAP) training, conducted by a qualified biologist, to assist workers in recognizing special status species with the potential to occur within the project site, which include coastal whiptail, coast horned lizard, California legless lizard, San Diego desert woodrat, coastal California gnatcatcher, and least Bell's vireo. The training shall also address protected nesting avian species and sensitive natural communities present within the project site (red willow riparian woodland and Fremont cottonwood woodland).

The specifics of this program shall include identification of special status species and habitats, a description of the regulatory status and general ecological characteristics of special status resources, and a review of the limits of construction and measures required to avoid and minimize impacts to biological resources within the project site. A fact sheet conveying this information shall also be prepared for distribution to all contractors, their employees, and other personnel involved with construction of the project. All employees shall sign a form provided by the trainer documenting they attended the WEAP and understand the information presented. The crew foreman shall be responsible for ensuring crew members adhere to the guidelines and restrictions designed to avoid impacts to special status species. If new construction personnel are added to the project, the crew foreman shall ensure the new personnel receive the WEAP training before starting work.

BIO-2 General Best Management Practices

Construction personnel shall adhere to the following general best management practice (BMP) requirements:

- Other than construction of the discharge pipeline, no project construction, activities, and equipment staging shall occur within bed and banks of San Francisquito Creek. The contractor shall advise all workers of the intent of the protection measures prior to the start of project construction and activities. Other than as part of the construction of the discharge pipeline, no vegetation shall be removed from the channel, bed, or banks of San Francisquito Creek.
- Project-related vehicles shall observe a five-mile-per-hour speed limit within the unpaved limits of construction.
- All open trenches shall be fenced and sloped to prevent entrapment of wildlife species.
- Excavated material from trenching shall be side cast away from San Francisquito Creek to prevent sediment deposition within the river.
- All hollow posts and pipes shall be capped, and metal fence stakes shall be plugged with bolts or other plugging materials to prevent wildlife entrapment and mortality.
- All food-related trash items such as wrappers, cans, bottles, and food scraps generated during project construction shall be disposed of in closed containers only and removed daily from the project site.

- All night-time lighting shall be shielded and downcast to avoid potential impacts to wildlife migration.
- No deliberate feeding of wildlife shall be allowed.
- No pets shall be allowed on the project site.
- No firearms shall be allowed on the project site.
- If vehicle or equipment maintenance is necessary, it shall be performed in the designated staging areas.
- During construction, heavy equipment shall be operated in accordance with standard BMPs. All equipment used on-site shall be properly maintained to avoid leaks of oil, fuel, or residues. The contractor shall prevent oil, petroleum products, or any other pollutants from contaminating the soil or entering a watercourse (dry or otherwise). When vehicles or equipment are stationary, mats or drip pans shall be placed below vehicles to contain fluid leaks. Provisions shall be in place to remediate any accidental spills.
- Materials shall be stored on impervious surfaces or plastic ground covers to prevent any spills or leakage and shall be at least 50 feet from drainage features.
- Construction materials and spoils shall be protected from stormwater runoff using temporary perimeter sediment barriers such as berms, silt fences, fiber rolls, covers, sand/gravel bags, and straw bale barriers, as appropriate.
- While encounters with special-status species are not likely or anticipated, any worker who inadvertently injures or kills a special status species or finds one dead, injured, or entrapped shall immediately report the incident to the construction foreman or biological monitor. The construction foreman or biological monitor shall immediately notify SCV Water. SCV Water shall follow up with written notification to USFWS and/or CDFW within five working days of the incident. All observations of special status species shall be recorded on CNDDB field sheets and sent to CDFW by SCV Water or a qualified biological monitor.
- Before starting or moving construction vehicles, especially after a few days of non-operation, operators shall inspect under all vehicles to avoid impacts to any wildlife that may have sought refuge under equipment. All large building materials and pieces with crevices where wildlife can potentially hide shall be inspected before moving. If wildlife is detected, a qualified biologist shall move wildlife out of harm's way or temporarily stop activities until the animal leaves the area.

BIO-3 Pre-Construction Surveys for Special-Status Species

Prior to commencement of ground or vegetation disturbing activities within the delineated work area, a qualified biologist shall conduct two surveys for special-status wildlife species. The first survey shall be conducted no more than 14 days prior to commencement of project activities, and the second survey shall be conducted no more than three days prior to the commencement of project activities. The surveys shall incorporate methods to detect the special-status wildlife species that could potentially occur at the site, including coast horned lizard, coastal whiptail, California legless lizard, and San Diego desert woodrat.

If the aforementioned special-status species are encountered, a qualified biologist shall capture and transfer the individual(s), as feasible, to a suitable habitat location outside of the delineated work area where they would not be harmed by project activities. The biologist shall hold the requisite permits for the capture and handling of the species, if applicable. The biologist shall provide SCV Water with an email summary of the survey results within 24 hours of the survey. Furthermore, the

biologist shall submit a letter report to SCV Water within two weeks of the survey, documenting the survey methods, results, and any measures to avoid impacts to special-status species, if observed. Furthermore, during the pre-construction surveys, the qualified biologist should flag all woodrat middens within the Survey Area. Woodrat middens should be avoided to the greatest extent feasible.

BIO-4 Protection of Nesting Avian Species

All vegetation removal, ground disturbance, and construction taking place within portions of the Survey Area where there is suitable habitat for coastal California gnatcatcher and least Bell's vireo shall be conducted from September 16 through February 14, as feasible, which is outside the coastal California gnatcatcher and least Bell's vireo breeding season (approximately February 15 to September 15, combined).

If construction activities must occur during the coastal California gnatcatcher breeding season of February 15 through August 30, and within 500-feet of California sagebrush scrub or California buckwheat scrub habitat, a permitted biologist shall conduct focused surveys in accordance with the USFWS survey protocol for coastal California gnatcatcher prior to the start of construction. From February 15 through June 30, a minimum of six protocol surveys shall be conducted at least one week apart by a permitted biologist. Any survey methodology that deviates from these protocols will be approved by the USFWS prior to initiation of the first survey. Surveys will focus on coastal scrub habitat within the project site and adjacent suitable habitat out to 500-feet. If coastal California gnatcatcher are absent, the project may proceed as planned. If nesting coastal California gnatcatcher are present, a 500-foot avoidance buffer shall be set around the nest. No construction shall take place within the 500-foot buffer and the buffer shall remain in place until the end of the nesting season or until a qualified biologist has determined the nest is no longer active. If the 500-foot avoidance buffer is not feasible, SCV Water shall consult with regulatory agencies on additional avoidance/minimization measures to avoid incidental take (e.g., establishment of a reduced avoidance buffer with biological monitoring), or the need for state and/or federal take permits for the species.

If construction must occur within the least Bell's vireo breeding season of March 15 through September 15, and within 500-feet of suitable riparian habitat, a qualified biologist shall conduct focused surveys in accordance with the USFWS survey protocol for least Bell's vireo prior to the start of construction. From April 10 through July 31, at least six protocol surveys shall be conducted at least 10 days apart by a qualified biologist. Surveys will focus on suitable riparian habitat within the project site and adjacent suitable habitat out to 500-feet. If least Bell's vireo are absent, the project may proceed as planned. If breeding least Bell's vireo are present, the biologist shall determine the breeding territory and set a 500-foot avoidance buffer. No construction shall take place within the 500-foot buffer and the buffer shall remain in place until the end of the nesting season or until the qualified biologist has determined the nest is no longer active. If the 500-foot avoidance buffer is not feasible, SCV Water shall consult with regulatory agencies on additional avoidance/minimization measures to avoid incidental take (e.g., establishment of a reduced avoidance buffer with biological monitoring), or the need for state and/or federal take permits for the species.

BIO-5 Protection of Nesting Avian Species

If construction must occur within the avian breeding season (generally January 1 – August 31), unless otherwise noted for special-status species, no more than three days prior to initiation of ground-disturbing activities (including, but not limited to vegetation removal, site preparation, grading, excavation, and trenching) within the project site, a nesting avian pre-construction survey shall be conducted by a qualified biologist within the disturbance footprint plus a 100-foot buffer (300-foot for raptors), where feasible. If the proposed project is phased or construction activities stop for more than one week, a subsequent pre-construction nesting avian survey shall be required within three days prior to each phase of construction.

Pre-construction nesting avian surveys shall be conducted during the time of day when birds and raptors are active and shall factor in sufficient time to perform this survey adequately and completely. A report of the nesting avian survey results, if applicable, shall be submitted to SCV Water for review and approval.

If no nesting avian species are observed during pre-construction surveys, no further actions are necessary. If nests are found, an appropriate avoidance buffer ranging in size from 25 to 50 feet for passerines, and up to 300 feet for raptors depending upon the species and the proposed work activity, shall be determined and demarcated by a qualified biologist with bright orange construction fencing or other suitable material. Active nests shall be monitored at a minimum of once per week until it has been determined the young have fledged the nest. No ground disturbance or vegetation removal shall occur within this buffer until the qualified biologist confirms breeding/nesting has ended, and all the young have fledged.

Significance After Mitigation

Implementation of Mitigation Measure BIO-1 would require training all construction personnel in identifying special-status wildlife species, and Mitigation Measure BIO-2 would involve implementation of general best management practices (BMPs) that are protective of special-status wildlife species. Mitigation Measure BIO-3 would minimize the potential for project construction activities to impact special-status wildlife species by conducting pre-activity surveys and re-locating any species detected outside the disturbance footprint. In addition, Mitigation Measures BIO-4 and BIO-5 would reduce the potential for project construction activities to directly or indirectly impact active bird nests through a pre-construction nesting bird survey and establishment of avoidance buffers around active nests, if present. Implementation of these measures would reduce project impacts to special-status wildlife species to a less-than-significant level.

LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED

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, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?

Three riparian vegetation communities occur within the Study Area – Fremont cottonwood woodland, red willow riparian woodland, and mulefat thickets. Of these, Fremont cottonwood woodland and red willow riparian woodland are sensitive natural communities, and occur in several areas within the Study Area. Direct impacts to these plant communities could include permanent or temporary habitat removal/disturbance associated with the construction of new infrastructure or the expansion or the access road.

The project also has the potential to indirectly impact riparian and sensitive vegetation communities as a result of groundwater extraction via the rehabilitated Wells W9 and W10. Reactivated operation of existing Wells W9 and W10 could deplete local groundwater levels beyond the minimum thresholds for depletion of interconnected surface waters established in the Santa Clara River Valley East Groundwater Subbasin Groundwater Sustainability Plan (GSP) and could thus impact riparian and sensitive plant communities occurring within the Study Area, if they are dependent upon groundwater.

Groundwater pumping from Wells W9 and W10 would be consistent with historical pumping rates and would not exceed the pumping quantities provided in the groundwater level simulations used in the GSP. The project would be conducted in accordance with the procedures outlined in Section 9.5.5 of the GSP, which outlines actions to take if GDE triggers are exceeded. These include enhanced monitoring, identifying causes, and implementing management actions to protect ecosystems. Conducting the project in accordance with this section helps maintain riparian habitats, which supports species like the Least Bell's vireo by ensuring the groundwater levels needed for their nesting and foraging areas are preserved. Furthermore, SCV Water would operate these two wells in conformance with the monitoring and management actions of the GSP such that groundwater levels would not be lowered beyond the criteria established by the GSP for depletion of interconnected surface waters and undesirable results to groundwater-dependent ecosystems, thereby avoiding indirect impacts to potential groundwater-dependent resources.

Although potential indirect impacts to groundwater dependent ecosystems would be less than significant, the project would have potential to result in significant direct impacts riparian sensitive natural communities during construction and mitigation is required. Implementation of Mitigation Measure BIO-1 (outlined under threshold 4[a]), BIO-2 (outlined under threshold 4[a]), BIO-6, and BIO-7 would reduce potentially significant impacts to riparian habitat and sensitive natural communities to less-than-significant levels.

Mitigation Measure

BIO-6 Riparian Habitat and Sensitive Natural Communities Protection

Riparian habitat and sensitive natural communities (i.e., Fremont cottonwood woodland, red willow riparian woodland, and mulefat thickets) found within the final project limits, shall be avoided to the extent feasible. At a minimum, SCV Water shall implement the following measures to avoid and minimize impacts to riparian vegetation or sensitive natural communities, where feasible.

- Protect sensitive habitat areas from harmful exposure to light. If a project component is within or adjacent to sensitive habitat areas or habitat for sensitive species, and lighting is proposed, then the project component shall be designed to protect such areas from harmful exposure to light by shielding light sources, redirecting light sources, or using low intensity lighting.
- Delineate sensitive habitat areas. Sensitive habitat areas to be avoided, including appropriate buffers (determined by a qualified biologist), shall be flagged by a qualified biologist prior to the onset of construction activities. Where indicated by the biologist, these areas shall be fenced or otherwise protected from direct and indirect impacts. All such areas to be avoided shall be clearly marked on construction plans and designated as "no construction" zones.
- Slope stabilization. Where construction would occur on bare soil or on slopes, the contractor shall stabilize exposed soil/slopes immediately upon completion of construction activities. On highly erodible soils/slopes, the contractor shall use a non-vegetative material that binds the soil initially and breaks down within a few years. If more intensive erosion control treatments

are needed, geotextile mats, excelsior blankets, or other soil stabilization products shall be used.

- Install signage and fencing, vegetation, or other natural barriers to prevent impacts on adjacent areas during operation. Fencing, vegetation, or other natural barriers shall be constructed to prevent impacts on sensitive habitat areas adjacent to the Facilities during operation. Signs shall be erected in appropriate locations to inform users of the need to stay within designated bike paths, lanes, routes, or boulevards.
- If avoidance of riparian habitat or sensitive natural communities is not feasible, Mitigation Measure BIO-7 shall apply.

BIO-7 Compensatory Mitigation

If riparian habitat, sensitive natural communities, and/or state or federally protected wetlands and waters are disturbed, SCV Water shall compensate for the disturbance to ensure no net loss of habitat functions and values. Compensatory mitigation for permanent impacts can be accomplished either through purchase of credits through an approved Mitigation Bank or through SCV Water sponsored mitigation (e.g., on-site restoration). The compensation shall be at a minimum ratio of 1 acre restored, created, and/or preserved for every 1 acre permanently disturbed. If on-site restoration would occur, SCV Water shall develop and implement a Habitat Revegetation, Restoration, and Monitoring Program that describes how the habitat shall be created and/or restored, and monitored over a minimum period of time. Temporary impacts to these habitats shall be restored on site, where feasible, at a ratio of 1 acre restored for every 1 acre temporarily impacted, and addressed in the Plan.

In broad terms, the Plan shall at a minimum include:

- A description of the purpose and goals of the restoration
- Identification of success criteria and performance standards
- Methods of site preparation
- Irrigation plan and schedule
- BMPs
- Maintenance and monitoring program
- Adaptive management strategies
- Key interested and responsible parties
- Funding
- Contingencies

Significance After Mitigation

Implementation of Mitigation Measure BIO-6 would require identification and delineation of sensitive habitat areas and would involve avoiding work in such areas to the extent feasible. If avoidance of riparian habitat or sensitive natural communities is not feasible, Mitigation Measure BIO-7 would require compensatory mitigation prior to impacts to state- or federally-regulated waters. With implementation of these measures, impacts to riparian habitat or other sensitive natural communities would be less than significant.

LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED

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?

The project has the potential to result in direct impacts to jurisdictional waters and/or wetlands within the Study Area. For example, the installation of the approximately 200-foot discharge pipeline from the treatment facility to San Francisquito Creek may result in temporary and/or permanent impacts to San Francisquito Creek. This installation may also include the placement of riprap or other energy-dissipating structures at the pipeline's discharge point, further contributing to habitat impacts. Other potentially jurisdictional features are also located within the maximum project boundary; therefore, direct impacts to these features may occur depending on the final project design. Mitigation Measure BIO-8 would be required and involve delineation of jurisdictional features within the Study Area. In addition, Mitigation Measure BIO-7 (outlined under threshold 4[b]) requires compensatory mitigation for any unavoidable impacts to jurisdictional waters and wetlands resulting from project activities.

If project construction occurs during the rainy season, jurisdictional waters and wetlands may be indirectly impacted after a rain event should stormwater runoff result in effects such as increased turbidity, altered pH, and/or decreased dissolved oxygen levels. Therefore, implementation of the stormwater control BMPs (e.g., berms, silt fences, fiber rolls) described in Measure BIO-2 (outlined under threshold 4[a]) is recommended to reduce potential indirect impacts to jurisdictional waters and wetlands during construction to a less-than-significant level.

During operation, the project may indirectly affect the hydrology of San Francisquito Creek due to groundwater extraction from Wells W9 and W10. However, the project will be conducted in accordance with the procedures outlined in Section 9.5.5 of the GSP, as discussed under threshold 4(b). During project operation, groundwater pumping from Wells W9 and W10 would be consistent with historical pumping rates and would not exceed the pumping quantities provided in the groundwater level simulations used in the GSP, and impacts to groundwater-dependent ecosystems would be less than significant.

Therefore, with incorporation of Mitigation Measures BIO-2, BIO-7 and BIO-8, the proposed project would not have a substantial adverse effect on state or federally protected wetlands, and impacts would be less than significant.

Mitigation Measure

BIO-8 Jurisdictional Delineation Survey and Report

Prior to ground disturbance, SCV Water shall retain a qualified biologist to conduct a field delineation within the Survey Area. During the field survey, sample points shall be established to document wetland and non-wetland aquatic resources, using the appropriate agency-approved methodology and data forms. The sample points shall focus on identifying indicators of an OHWM, wetland hydrology, hydric soils, and hydrophytic vegetation. Using this information, a "wetland edge" shall be discerned between the wetland and non-wetland points, and the boundary of the aquatic resources shall be mapped with a sub-meter GPS unit.

The survey shall be conducted in accordance with USACE Wetlands Delineation Manual (1987) and Arid West Regional Supplement to the manual, as well as the latest guidance from the CDFW and Los Angeles RWQCB. This methodology is the acceptable methodology for delineating the boundaries of federal and state jurisdictions.

A delineation report shall be prepared in accordance with the USACE Los Angeles District's 2017 Minimum Standards for Acceptance of Aquatic Resources Delineation Reports and shall be used to support necessary permit applications. The report shall include a discussion of methodologies and results that detail the background information; field observations and data collected; and a summary of findings. The report shall contain narrative descriptions of all aquatic features identified, including jurisdictional resources and their boundaries within the project component's work area. The report shall quantify lengths and acreages of each aquatic feature, provide high-quality figures, site photographs, and completed data forms, and geographic information system (GIS) data.

Jurisdictional wetlands and waters identified in the delineation report shall be avoided wherever feasible. The report shall be prepared once the project's final design is determined, and the report shall be submitted to SCV Water for review and approval prior to the initiation of necessary permit applications. The report shall be used to support any necessary permitting requirements, such as the requirements discussed in Measures BIO-6 and BIO-7.

Significance After Mitigation

Mitigation Measure BIO-8 requires a qualified biologist to conduct a jurisdictional delineation survey before any ground disturbance to identify and map potential wetlands and aquatic resources. A report based on approved federal and state methodologies will document the findings and guide necessary permitting. Wherever feasible, impacts to jurisdictional features must be avoided. Mitigation Measure BIO-7 requires SCV Water to offset impacts to sensitive habitats such as wetlands or riparian areas through restoration, preservation, or in-lieu fees to ensure no net loss of ecological function. Implementation of these measures would reduce project impacts to regulated waters and wetlands to a less-than-significant level.

LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED

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?

San Francisquito Creek may serve as a movement corridor for species such as mule deer and coyote. Pipeline improvements, which will occur parallel to the creek, are not expected to interfere with wildlife movement. Construction areas will be fenced, pipelines will be installed in segments, and any open trenches will be covered with steel plates when not actively under construction. Upon project completion, the pipelines will be buried below the soil surface, further minimizing long-term disruption.

Installation of the discharge pipeline within San Francisquito Creek may include the installation of rip-rap or other energy-dissipating features at the terminus of the discharge pipeline, which could impact wildlife movement in this area. However, animals using the riparian corridor for movement (e.g., bobcats, raccoons, reptiles) would still have access along the main creek channel and the eastern creek banks, as the structure would not form a physical barrier across their path. The footprint for the energy-dissipating structure would be small enough so that animals could still utilize the western bank as well. Therefore, direct impacts to terrestrial wildlife movement are not anticipated as part of the proposed discharge pipeline installation.

Potential indirect impacts to wildlife movement could result from construction lighting, which may deter nocturnal wildlife from using the corridor. Therefore, implementation of Mitigation Measure

BIO-2 (outlined under threshold 4[a]), would be required to reduce potential direct and indirect impacts to wildlife movement to a less-than-significant level.

LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED

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

The project is subject to consideration of local plans, policies, and ordinances related to biological resources, including those outlined in the City of Santa Clarita's General Plan and Municipal Code. The following sections evaluate the project's potential consistency with applicable local regulations and voluntary compliance measures relevant to habitat conservation, tree protection, and land use planning.

City of Santa Clarita General Plan

The City's General Plan contains objectives and policies for biological resources relevant to the project given its location and/or proposed activities. As identified above, these objectives and policies focus on conservation of existing natural areas; restoration of damaged natural vegetation; protection of wetlands, oak trees and other indigenous woodlands and endangered or threatened species and habitat; and protection of biological resources in Significant Ecological Areas and significant wildlife corridors. Mitigation Measure BIO-1 through BIO-8 will avoid or mitigate potential impacts to special status species and protected habitats to a less-than-significant level.

No Significant Ecological Areas overlap with the Study Area and the project is not subject to the City's building and zoning ordinances, including Titles 17 and 18 of the Santa Clarita Municipal Code, pursuant to Government Code Section 53091. As such, SCV Water is not required to comply with the provisions of Section 17.38.080, and the project would not conflict with this plan.

North Valencia II Specific Plan

The project is located in the North Valencia II Specific Plan area, which establishes additional zoning regulations for the area including oak tree preservation requirements. Pursuant to Government Code Section 53091, city and county building and zoning ordinances do not apply to the location or construction of facilities involved in the production, generation, storage, treatment, or transmission of water. However, SCV Water has elected to voluntarily comply with the City's oak tree preservation requirements during project implementation.

No tree removal is currently proposed as part of the project. Therefore, the project would not conflict with the North Valencia II Specific Plan. If oak tree removal becomes necessary, SCV Water would voluntarily obtain a permit from the City of Santa Clarita as described below.

Oak Tree Preservation Ordinance, and Parkway Tree Ordinance

No tree removal is currently proposed as part of the project. However, if the removal of protected oak trees becomes necessary, SCV Water would voluntarily obtain an Oak Tree Removal Permit from the City of Santa Clarita. Similarly, if any trees protected under the Parkway Tree Ordinance require removal, a Parkway Tree Permit would be obtained. With adherence to these regulatory procedures, the project would not result in any significant impacts related to local policies and ordinances protecting biological resources.

LESS-THAN-SIGNIFICANT IMPACT

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?

The Study Area is not located within any Habitat Conservation Plans, Natural Community Conservation Plans, or other approved local, regional, or state habitat conservation plan area. Therefore, no impact would occur.

NO IMPACT

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5 Cultural Resources

	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 formal cemeteries?	☐	☐	■	☐

CEQA requires a lead agency to determine whether a project may have a significant effect on historical resources (Public Resources Code [PRC] Section 21084.1). A historical resource is a resource listed in, or determined to be eligible for listing in, the California Register of Historical Resources (CRHR); a resource included in a local register of historical resources; or any object, building, structure, site, area, place, record, or manuscript a lead agency determines to be historically significant (CEQA Guidelines Section 15064.5[a][1-3]).

A resource shall be considered historically significant if it:

1. Is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage;
2. Is associated with the lives of persons important in our past;
3. Embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values; or
4. Has yielded, or may be likely to yield, information important in prehistory or history.

In addition, if it can be demonstrated that a project would cause damage to a unique archaeological resource, the lead agency may require 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 resources cannot be left undisturbed, mitigation measures are required (PRC Section 21083.2[a-b]). 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:

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

The impact analysis below is organized based on the cultural resources thresholds included in CEQA Guidelines Appendix G: Environmental Checklist Form. Threshold A broadly refers to historical resources. To more clearly differentiate between archaeological and built environment resources, the analysis under threshold (a) is limited to built environment resources. Archaeological resources, including those that may be considered historical resources pursuant to CEQA Guidelines Section 15064.5 and those that may be considered unique archaeological resources pursuant to PRC Section 21083.2, are considered under threshold (b).

Methodology and Results of Cultural Resources Assessment Report

In July 2025, Rincon Consultants conducted a cultural resources investigation and analysis of the project site, which is included as Appendix C. This analysis included a cultural resources records search of the California Historical Resources Information System (CHRIS) at the South Central Coastal Information Center (SCCIC) located at California State University, Fullerton. The SCCIC is the official state repository for cultural resources records and reports for Los Angeles County, where the project site is located. The records search included a review of all previously conducted cultural resources studies and previously recorded cultural resources within the project site and a 0.5-mile radius. The report also included a review of the National Register of Historic Places, the California Register of Historical Resources (CRHR), the California Historical Landmarks list, the Built Environment Resources Directory and the Archaeological Determination of Eligibility list.

The CHRIS records search results indicate 19 cultural resources studies have been previously conducted within the 0.5-mile records search radius between the years 1974 and 2006. Of the 19 studies, six partially overlap the project site or include areas within the project site (LA-00054, LA-01317, LA-02106, LA-003690, LA-03904, and LA-10210) and two are adjacent to the project site (LA-02718 and LA-03093). The records search results identified two cultural resources previously recorded within the 0.5-mile records search radius. No cultural resources were identified within or immediately adjacent to the project site.

A geoarchaeological review was conducted to assess the potential for subsurface archaeological resources to be present within the project site. Sources reviewed as part of this assessment include historical topographic maps, historical aerial photographs, geologic maps, and soil survey maps. The intent of the review was to provide a land use history of the project site and its vicinity, as well as to assess the likelihood for the project site to contain subsurface archaeological deposits.

The geoarchaeological review indicates the project site has been subject to previous disturbances associated with road, recreational trail, and urban development and the construction of the existing W9 and W10 wells, pipelines, and infrastructure within the project site. The CHRIS records search, background search, and field survey did not identify pre-contact or historic period cultural resources within or immediately adjacent to the project site. Two historic-period resources were identified within the 0.5-mile radius of the project site. The project site is located near the eastern bank of the San Francisquito Creek active wash; the geoarchaeological research indicates Holocene-age (11,650 years ago to present) gravel, sand, and clay of valley areas are present on the eastern bank of San Francisquito Creek and gravel sand of major stream channels within the creek bed. While Holocene-age sediments dating to the period of human occupation of the region may bury and preserve archaeological deposits, the project site is located adjacent to an active river wash. The southern and western portions of the project site are completely developed with roadways, the San Francisquito Creek Trail, and Well W10, while the eastern portion of the project area is located along the river and the northern portion of the project site is contained within existing paved roads. Review of historical topographic maps and aerial imagery indicates the project site and the

surrounding areas have been subject to a high degree of natural disturbances as well as developmental disturbances including agricultural and residential, and construction of the existing pipeline and well infrastructure by the late 1960s. Given the degree of previous disturbances, it is unlikely intact subsurface archaeological resources are present within the project site.

Rincon Archaeologist, Andrea Ogaz, MA, Registered Professional Archaeologist (RPA), conducted a pedestrian survey of the project site on May 16, 2025. The project site is partially hardscaped and includes areas with low visibility due to dense vegetation; therefore, an intensive archaeological survey was not possible. Instead, an opportunistic survey approach was employed, selectively examining areas of exposed ground surface, which were limited to areas within and adjacent to the existing bike trail. Exposed ground surfaces were examined for artifacts (e.g., flaked stone tools, tool-making debris, stone milling tools), ecofacts (marine shell and bone), soil discoloration that might indicate the presence of a cultural midden, historical debris (e.g., metal, glass, ceramics), and features indicative of the former presence of structures or buildings (e.g., standing exterior walls, foundations). No cultural resources were identified during the field survey.

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

No built environment resources were identified within or immediately adjacent to the project site based on the results of the CHRIS records search and a field survey. The existing W9 and W10 wells were constructed in the 1990s and do not meet the 45-year threshold for consideration as potential historical resources under CEQA. Additionally, the two built environment resources identified in the CHRIS records search are located approximately 0.5 mile from the project site and are outside the area of potential effect. As a result, the proposed project would not result in a substantial adverse change to built environment resources that may qualify as historical resources under CEQA Guidelines Section 15064.5(b). Therefore, the project would result in no impact to built environment resources.

NO IMPACT

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

No precontact or historic-period archaeological resources were identified within the project site as a result of the CHRIS records search, background research, or pedestrian survey. Therefore, no impacts to known archaeological resources qualifying as historical resources or unique archaeological resources as defined by CEQA are anticipated. The site is located along the east bank of a creek bed characterized by recent river wash deposits consisting of sands and gravels in a frequently flooded drainage area. Additionally, the site has experienced previous ground disturbance from road construction, recreational trail installation, urban development, and the construction of existing wells W9 and W10. Most project activities would occur within these already disturbed areas or within the active wash.

Given these conditions, the likelihood of encountering intact archaeological resources that may qualify as historical resources or unique archaeological resources under CEQA is low. However, ground disturbing activities always have the potential to result in unanticipated discovery. In the event that archaeological materials are encountered, such materials could be considered significant under CEQA and potentially significant impacts could occur if materials are disturbed or destroyed. Further, as discussed in Section 18, *Tribal Cultural Resources,* the Fernandeño Tataviam Band of

Mission Indians (FTBMI) requested the inclusion of several mitigation measures during tribal consultation, which are included below.

Mitigation Measure

CR-1 Unanticipated Discovery of Cultural Resources

In the event an archaeological resource is unexpectedly encountered during ground-disturbing activities, work within 60 feet of the find shall halt and an archaeologist meeting the Secretary of the Interior's Professional Qualifications Standards for Archaeology (National Park Service 1983) shall be contacted immediately to evaluate the resource. Work on the portions of the project outside of the buffered area may continue during this assessment period. If the resource is determined by the qualified archaeologist to be prehistoric, then a Native American representative and/or a tribal monitor from the Fernandeño Tataviam Band of Mission Indians shall also be contacted to participate in the evaluation of the resource. If the resource cannot be avoided by project redesign, and if the qualified archaeologist and/or Native American representative determines it to be appropriate, the archaeological resource shall be evaluated for listing in the CRHR or determined to be a unique archaeological resource for those recommended ineligible for the CRHR. If the resource proves to be eligible for the CRHR or a unique archaeological resource and significant impacts to the resource cannot be avoided via project redesign, a qualified archaeologist shall prepare a data recovery plan, in consultation with the locally affiliated tribe (e.g., Fernandeño Tataviam Band of Mission Indians [FTBMI]), tailored to the physical nature and characteristics of the resource, pursuant to the requirements of the *CEQA Guidelines* Section 15126.4(b)(3)(C). The data recovery plan shall identify data recovery excavation methods, measurable objectives, and data thresholds to reduce any significant impacts to the cultural resource. Pursuant to the data recovery plan, the qualified archaeologist and Native American representative, as appropriate, shall recover and document the scientifically consequential information that justifies the resource's significance. SCV Water or its Consultant or its Contractor shall review and approve the treatment plan and archaeological testing as appropriate, and the resulting documentation shall be submitted to the SCCIC, pursuant to *CEQA Guidelines* Section 15126.4(b)(3)(C).

CR-2 Worker's Environmental Sensitivity (WEAP) Training

SCV Water or its Consultant or its Contractor shall retain an archaeologist who meets or exceeds the Secretary of Interior's Professional Qualification Standards for archaeology (National Park Service 1983) (Qualified Archaeologist) to prepare a WEAP training to be presented for all construction personnel prior to the start of construction. The WEAP shall be conducted by the Qualified Archaeologist , or their qualified designee, and the locally affiliated Native American Monitor or representative (e.g., Fernandeño Tataviam Band of Mission Indians [FTBMI]), The sensitivity training should include a description of archaeological and tribal cultural resources that may be encountered during ground-disturbing activities, cultural sensitivity of the area, regulatory context, and the proper protocol for treatment of the materials in the event of a discovery.

CR-3 Treatment and Disposition Plan

A Treatment and Disposition Plan (TDP) shall be established, in consultation with the Fernandeño Tataviam Band of Mission Indians, prior to the commencement of ground-disturbing activities for the project, including clearing, grubbing, grading, and trench excavation, and any archaeological testing. The TDP will provide details regarding the process for in-field treatment of inadvertent discoveries and the disposition of inadvertently discovered non-funerary resources.

CR-4 Cultural Resources Monitoring and Mitigation Plan

The Qualified Archaeologist shall develop a Cultural Resources Monitoring and Mitigation Plan (CRMMP). The plan will be prepared in consultation with the locally affiliated tribe (e.g., Fernandeño Tataviam Band of Mission Indians [FTBMI]), prior to the commencement of ground-disturbing activities for the project, including clearing, grubbing, grading, and trench excavation. The CRMMP will provide details regarding the process for discovery response, .communication protocols, contact information, and treatment protocols including the disposition of recovered materials.

Significance After Mitigation

Mitigation Measures CR-1through CR-4 would minimize the potential for impacts related to unexpected discoveries of archaeological resources to occur through the implementation of a worker awareness training, appropriate procedures for evaluation and treatment should any discoveries be made during construction, and a monitoring plan. Therefore, implementation of Mitigation Measures CR-1through CR-4 would reduce impacts to archaeological resources to a less-than-significant level.

LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED

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

No human remains are known to exist within the project site; however, the potential for unanticipated discovery during ground-disturbing activities cannot be ruled out. In accordance with California Health and Safety Code Section 7050.5, if human remains are encountered, all work in the vicinity must cease until the County Coroner determines the origin and disposition of the remains as outlined in Public Resources Code Section 5097.98. Should the remains be identified as Native American, the Coroner shall notify the Native American Heritage Commission (NAHC), which will appoint a Most Likely Descendant (MLD). The MLD has 48 hours from the time of notification to make recommendations regarding the treatment of the remains. If no recommendations are provided within that timeframe, the landowner must ensure that the remains are reinterred in a location protected from future disturbance. With implementation of these existing regulatory procedures, the project would result in a less than significant impact to human remains under CEQA.

LESS-THAN-SIGNIFICANT IMPACT

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6 Energy

	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?	☐	☐	☐	■

California ranks among the lowest per capita energy consumers in the United States, placing third-lowest nationally in 2023, largely due to its mild climate and robust energy efficiency programs (United States Energy Information Administration 2025). Electricity and natural gas are primarily consumed by the built environment for lighting, appliances, heating and cooling systems, and industrial processes, as well as by alternative fuel vehicles. In 2023, California generated approximately 58 percent of its electricity from non–CO_2-emitting sources, including nuclear, large hydroelectric, and renewables, with the remaining 42 percent coming from thermal and unspecified sources (California Energy Commission [CEC] 2024). While most electricity is generated in-state, California continues to rely on out-of-state imports for nearly 90 percent of its natural gas supply, underscoring the importance of regional energy infrastructure (CEC 2022).

In addition, 67 percent of California's retail electricity sales in 2023 came from renewable and zero-carbon sources, including solar, wind, geothermal, biomass, hydroelectric, and nuclear generation (Governor Gavin Newsom 2025). This progress aligns with Senate Bill 100, which mandates electricity providers procure 100 percent of retail electricity sales from eligible renewable and zero-carbon resources by 2045, with interim targets of 33 percent by 2020 and 60 percent by 2030 (CEC 2025a).

Petroleum fuel remains the dominant energy source for transportation, with gasoline used primarily by light-duty vehicles and diesel consumed by heavy-duty trucks, buses, trains, ships, and construction equipment (CEC 2025b). California is one of the top petroleum-consuming states in the nation, although it imports most of its crude oil and refined products (United States Energy Information Administration 2025).

Energy consumption is directly related to environmental quality in that the consumption of nonrenewable energy resources releases criteria air pollutant and greenhouse gas (GHG) emissions into the atmosphere. The environmental impacts of air pollutants and GHG emissions associated with the project's energy consumption are discussed in detail in Section 3, *Air Quality*, and Section 8, *Greenhouse Gas Emissions*, respectively.

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?

Energy use during project construction would be primarily in the form of fuel consumption to operate heavy equipment, light-duty vehicles, machinery, and generators. Temporary grid power may also be provided to construction trailers or electric construction equipment. Table 8 summarizes the anticipated energy consumption from construction equipment and vehicles, including construction worker trips to and from the project site. As shown therein, project construction would require approximately 857 gallons of gasoline fuel and approximately 23,922 gallons of diesel fuel.

Table 8 Energy Use during Project Construction

	Fuel Consumption (Gallons)	
Source	**Gasoline**	**Diesel**
Construction Equipment & Hauling Trips	–	23,922
Construction Worker Vehicle Trips	857	–

See Appendix A for CalEEMod outputs and Appendix D for energy calculation sheets.

Energy use during construction would be temporary in nature, and construction equipment used would be typical of similar-sized construction projects in the region. In addition, construction contractors would be required to comply with the provisions of California Code of Regulations Title 13, Sections 2449 and 2485, which prohibit diesel-fueled commercial motor vehicles and off-road diesel vehicles from idling for more than five minutes, which would minimize unnecessary fuel consumption. Construction equipment would be subject to the USEPA Construction Equipment Fuel Efficiency Standard (40 Code of Federal Regulations Parts 1039, 1065, and 1068), which would minimize inefficient fuel consumption. Furthermore, in the interest of cost efficiency, construction contractors would not utilize fuel in a manner that is wasteful or unnecessary. Therefore, project construction would not result in a potential impact due to wasteful, inefficient, or unnecessary consumption of energy resources, and no construction-related energy impact would occur.

Operational Energy Consumption

Electricity for the proposed project would be supplied by Southern California Edison. Operation of the project would contribute to regional energy demand by consuming electricity and gasoline and diesel fuels. Electricity would be used for groundwater pumping, water treatment, and lighting, among other purposes. Gasoline and diesel consumption would be associated with vehicle trips generated by SCV Water staff, chemical deliveries, and resin replacement. Table 9 summarizes estimated operational energy consumption for the proposed project. As shown therein, project operation would require approximately 689 gallons of gasoline fuel, 11 gallons of diesel fuel, and approximately 280 to 330 megawatt-hours of electricity per year.

Table 9 Estimated Project Annual Operational Energy Consumption

Source	Energy Consumption[1]	
Gasoline Fuel (SCV Water Staff Visits)	689 gallons	75.6 MMBtu
Diesel Fuel (Chemical Deliveries and Resin Replacements)	11 gallons	1.4 MMBtu
Electricity[2]	280 to 330 MWh	955 to 1,125 MMBtu

MMBtu = million metric British thermal units; MWh = megawatt-hours

[1] Energy consumption is converted to MMBtu for each source.

[2] Calculated based on electricity consumption for similar existing groundwater treatment and disinfection facility for the N Wells.

See Appendix D for transportation energy calculation sheets.

The project would be required to comply with all standards set in the latest iteration of the California Building Standards Code (California Code of Regulations Title 24), which would minimize the wasteful, inefficient, or unnecessary consumption of energy resources by the built environment during operation. CALGreen (California Code of Regulations Title 24, Part 11) requires implementation of energy-efficient light fixtures and building materials into the design of new construction projects. Furthermore, the 2022 Building Energy Efficiency Standards (California Code of Regulations Title 24, Part 6) require newly constructed buildings to meet energy performance standards set by the CEC. These standards are specifically crafted for new buildings to result in energy efficient performance so that the buildings do not result in wasteful, inefficient, or unnecessary consumption of energy. Moreover, the groundwater treatment and disinfection facility would be necessary to treat groundwater affected by PFAS contamination, thus enabling SCV Water to continue providing safe, potable water to its service area. Furthermore, in the interest of cost efficiency, SCV Water would not utilize electricity for groundwater pumping or the treatment process in a manner that is wasteful or inefficient. Therefore, project operation would not result in potentially significant environmental effects due to the wasteful, inefficient, or unnecessary consumption of energy, and no impact would occur.

NO IMPACT

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

SCV Water has not adopted specific renewable energy or energy efficiency plans with which the project could comply. As mentioned above, SB 100 mandates 100 percent clean electricity for California by 2045. Because the proposed project would be powered by the existing electricity grid, the project would eventually be powered by renewable energy mandated by SB 100 and would not conflict with this statewide plan. The proposed project would not conflict with or obstruct a state or local plan for renewable energy or energy efficiency, and no impact would occur.

NO IMPACT

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7 Geology and Soils

	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:				
1. 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?	☐	☐	■	☐
2. Strong seismic ground shaking?	☐	☐	■	☐
3. Seismic-related ground failure, including liquefaction?	☐	☐	■	☐
4. 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 wastewater disposal systems where sewers are not available for the disposal of wastewater?	☐	☐	☐	■
f. Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	■	☐	☐

a.1. Would the project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault?

a.2. Would the project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving strong seismic ground shaking?

Like much of California, the project site is located in a seismically active region. The City's Safety Element defines active as faults that have caused soil and strata displacement within the last 11,000 years (the Holocene epoch). Potentially active faults show evidence of surface displacement during the last two million years (the Quaternary period) (City of Santa Clarita 2022). According to the DOC, a portion of the project site is located on the San Gabriel Fault Line, which is identified as an Alquist-Priolo Fault (DOC 2025b).

The project involves construction of water infrastructure and would not involve placement of habitable structures, thereby minimizing the potential to result in loss, injury, or death involving fault rupture and strong seismic ground-shaking. Because most of California is susceptible to strong ground shaking from severe earthquakes and the project's location within an earthquake fault zone, development of the project could expose project structures to strong seismic ground shaking. However, the project would be designed and constructed in accordance with state and local building codes to reduce the potential for exposure of structures to seismic risks to the maximum extent feasible. The project would be required to comply with the seismic safety requirements in the latest iteration of the California Building Code (CBC). Compliance with such requirements would reduce seismic ground shaking impacts to the maximum extent practicable with current engineering practices. In addition, the facility would be unmanned and would not have permanent on-site personnel. The proposed groundwater treatment and disinfection facility would not be located adjacent to any residences, school buildings, or other structures. Therefore, it would not impact those structures or their occupants should seismic ground shaking compromise the structural integrity of these components. The project would not increase or exacerbate fault rupture or seismic ground shaking hazards at adjacent properties. In the event fault rupture or seismic ground shaking compromises the pipelines or facilities during operation, SCV Water would temporarily shut-off processes and conduct emergency repairs as soon as practicable. Therefore, the project would not cause substantial adverse effects including the risk of loss, injury, or death involving rupture of known fault or strong seismic ground shaking, and impacts would be less than significant.

LESS-THAN-SIGNIFICANT IMPACT

a.3. Would the project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving seismic-related ground failure, including liquefaction?

Liquefaction occurs when loose, water-saturated sediments lose strength and fail during strong ground shaking. Liquefaction is defined as the transformation of granular material from a solid state into a liquefied state due to increased pore-water pressure (United States Geological Survey 2025). According to the City's Safety Element, liquefaction usually occurs during or shortly after a large earthquake (City of Santa Clarita 2022). The project site is located in a liquefaction zone (DOC 2025b). Soils therefore have the potential to liquefy during a seismic event, and seismically induced liquefaction could potentially damage the proposed water treatment plant in the event of an earthquake, resulting in joint failure or leakage from the pipeline. As discussed under thresholds 7(a.1) and 7(a.2), the project would be constructed in accordance with the current seismic design provisions of the CBC. In the event seismically induced liquefaction compromises the pipelines or

facilities during operation, SCV Water would temporarily shut-off water pumping, treatment, and conveyance processes and conduct emergency repairs as soon as practicable. In addition, the project involves construction of water infrastructure and would not involve placement of habitable structures within a liquefaction-prone area, thereby minimizing the potential to result in loss, injury, or death involving seismic-related ground failure due to liquefaction. Furthermore, the project would not involve groundwater injection or other activities that could exacerbate the existing liquefaction hazard. As a result, with adherence to existing regulatory requirements, the proposed project would not directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving seismic-related ground failure, including liquefaction. Impacts would be less than significant.

LESS-THAN-SIGNIFICANT IMPACT

a.4. Would the project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving landslides?

The proposed project is located in a relatively flat area that is not within or near a landslide hazard zone (DOC 2025b). Therefore, the project would not directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving landslides. No impact would occur.

NO IMPACT

b. Would the project result in substantial soil erosion or the loss of topsoil?

Ground-disturbing activities associated with project construction may result in the removal of some topsoil. Construction activities would be subject to the National Pollutant Discharge Elimination System (NPDES) Construction General Permit which requires the development of a Storm Water Pollution Prevention Plan (SWPPP) developed by a certified Qualified SWPPP Developer. The SWPPP includes project-specific BMPs to control erosion, sediment release, and otherwise reduce the potential for discharge of pollutants from construction into stormwater. Typical BMPs would include, but would not be limited to, use of silt fences, fiber rolls, stabilized construction entrances/exists, storm drain inlet protection, wind erosion control, stockpile management, materials storage, vehicle and equipment cleaning, fueling, and maintenance procedures that minimize the discharge of spills and leaks. Erosion from construction activities would thus be controlled through implementation of BMPs outlined in the SWPPP required by the NPDES Construction General Permit. Therefore, construction impacts related to soil erosion would be less than significant.

Project operation would have minimal potential to result in erosion because no ground-disturbing activities would occur. The project includes installation of an underground raw water pipeline from the existing well W10 location to the existing well W9 location. The project would also involve installation of a 200-foot long discharge pipeline, which would convey treated, discharged groundwater from the treatment facility to San Francisquito Creek. Routine flushing of the wells would be required; when the well starts up, water would be flushed for approximately 10 minutes. If the well has been offline for an extended period of time, water would be flushed for approximately two hours. Water used for routine flushing would be treated, as necessary, and discharged to San Francisquito Creek and would be subject to compliance with SCV Water's existing coverage under Waste Discharge Requirements Order WQ 2014-0194-DWQ/General Order No. CAG140001 (ID: 4DW0430), which is the Statewide NPDES Permit for Drinking Water System Discharges to Waters of the United States. As required under this permit, SCV Water would be

required to implement BMPs that would minimize sediment discharge via use of erosion control measures. The BMPs required by this NPDES permit would thus minimize potential erosion associated with stormwater discharges during project operation. As such, operational impacts related to soil erosion would be less than significant.

LESS-THAN-SIGNIFICANT IMPACT

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?

Subsidence is the gradual, local settling or sinking of the earth's surface with little or no horizontal motion. Subsidence usually occurs as a result of the extraction of subsurface gas, oil, or water, or from hydro-compaction (City of Santa Clarita 2022). The proposed project would restore the use of the W10 and W9 wells. SCV Water would manage its pumping regime at Wells W10 and W9 in accordance with the provisions of the Santa Clara River Valley East Groundwater Subbasin GSP, which includes metrics for monitoring and addressing subsidence issues (SCV GSA 2022). Therefore, the proposed project would not result in soil instability such that subsidence would occur. In addition, as described in threshold 7(a.3), the proposed project would not result in soil instability related to liquefaction. Consequently, impacts related to the instability of soil or geologic units would be less than significant.

LESS-THAN-SIGNIFICANT IMPACT

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 soils that shrink or swell as the moisture content decreases or increases. Structures built on these soils may experience shifting, cracking, and breaking damage as soils shrink and subside or expand (United States Geological Survey [USGS] 2025b). Expansive soils can result in structural damage when foundations are not designed to account for soil expansion potential. The project site is composed of Hanford sandy loam, 0 to 2 percent slopes (6-8 percent clay), Metz loamy sand, 2 to 9 percent slopes (18-35 percent clay), Sandy alluvial land (18-27 percent clay) and Saugus loam, 30 to 50 percent slopes, eroded (less than 18 percent clay) (United States Department of Agriculture 2025). Due to the lack of clay content of the on-site soils, the potential for expansive soils to occur is low. In addition, the project does not include construction of habitable structures. Therefore, the proposed project would not create substantial direct or indirect risks to life or property as a result of expansive soils, and there would be no impact.

NO IMPACT

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

The proposed project would not include the use of septic tanks or alternative wastewater disposal systems. Therefore, no impact would occur.

NO IMPACT

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

Paleontological resources, or fossils, are the evidence of once-living organisms preserved in the rock record. They include both the fossilized remains of ancient plants and animals and the traces thereof (e.g., trackways, imprints, burrows). Paleontological resources are not found in "soil" but are contained within the geologic deposits or bedrock that underlies the soil layer. Typically, fossils are greater than 5,000 years old (i.e., older than middle Holocene in age) and are typically preserved in sedimentary rocks. Although rare, fossils can also be preserved in volcanic rocks and low-grade metamorphic rocks under certain conditions (Society of Vertebrate Paleontology [SVP] 2010). Fossils occur in a non-continuous and often unpredictable distribution within some sedimentary units, and the potential for fossils to occur within sedimentary units depends on several factors. It is possible to evaluate the potential for geologic units to contain scientifically important paleontological resources, and therefore evaluate the potential for impacts to those resources and provide mitigation for paleontological resources if they are discovered during construction of a development project.

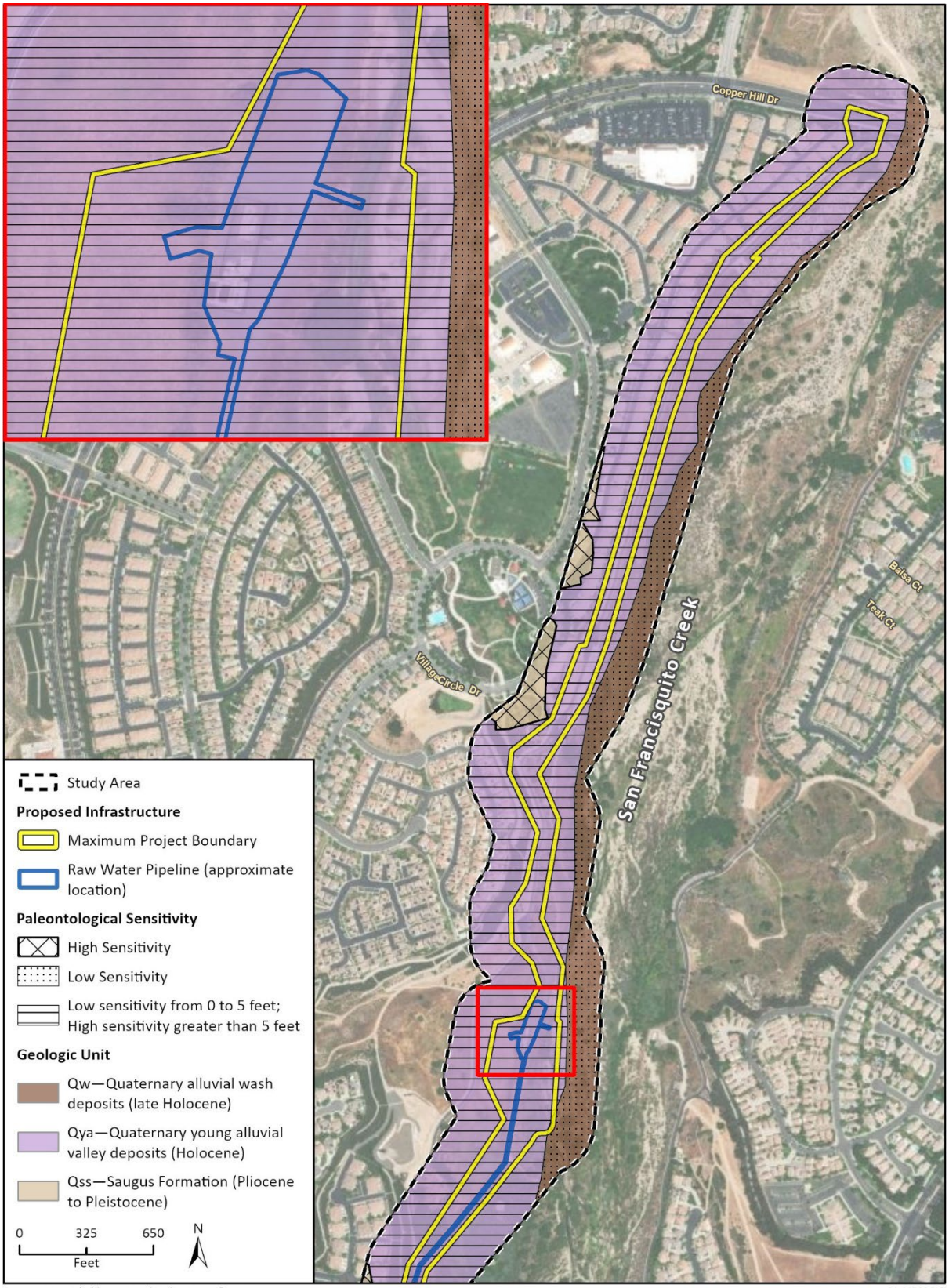
Rincon evaluated the paleontological sensitivity of the geologic units that underlie the project site to assess the project's potential for significant impacts to scientifically-important paleontological resources. The analysis was based on the results of a paleontological locality search and a review of scientific literature regarding known fossils within geologic units mapped at the project site. According to the SVP (2010) classification system, geologic units can be assigned a high, low, undetermined, or no potential for containing scientifically-significant, nonrenewable paleontological resources. Following the literature review, a paleontological sensitivity classification was assigned to each geologic unit mapped within the project site. This criterion is based on rock units that previous studies have determined the presence or potential presence of fossils. The potential for impacts to paleontological resources is based on the potential for ground disturbance to directly impact paleontologically sensitive geologic units.

Rincon requested a paleontological records search of the Natural History Museum of Los Angeles County (NHMLA) on April 9, 2025, which indicated there are no known fossil localities within the project site (NHMLA 2025). However, NHMLA (2025) did report several fossil localities in the region from the Saugus Formation, including one less than 1.5 miles from the project site, preserving horse (Equidae) and rodent fossils.

The project site is situated in the Transverse Ranges geomorphic province, one of the eleven geomorphic provinces in California (California Geological Survey 2002). The Transverse Ranges extend approximately 275 miles west-east from Point Arguello in Santa Barbara County, east to the San Bernardino Mountains, and south to the Anacapa-Santa Monica-Hollywood-Raymond-Cucamonga fault zone (Yerkes and Campbell 2005). The Transverse Ranges are composed of Proterozoic to Mesozoic intrusive crystalline igneous and metamorphic rocks overlain by Cenozoic marine and terrestrial sedimentary deposits and volcanic rock (Norris and Webb 1976). Locally, the project site is located in the southern portion of San Francisquito Canyon at the southern edge of the San Emigidio Mountains.

The project is located in the *Newhall, California* United States Geological Survey 7.5-minute topographic quadrangle. The geology of the region surrounding the project site was mapped by Dibblee and Ehrenspeck (1996) and Bedrossian and Roffers (2012) who identified three geologic units within 200 feet of the project site: Quaternary wash deposits, Quaternary young alluvial valley deposits, and Saugus Formation (Figure 6a and 6b).

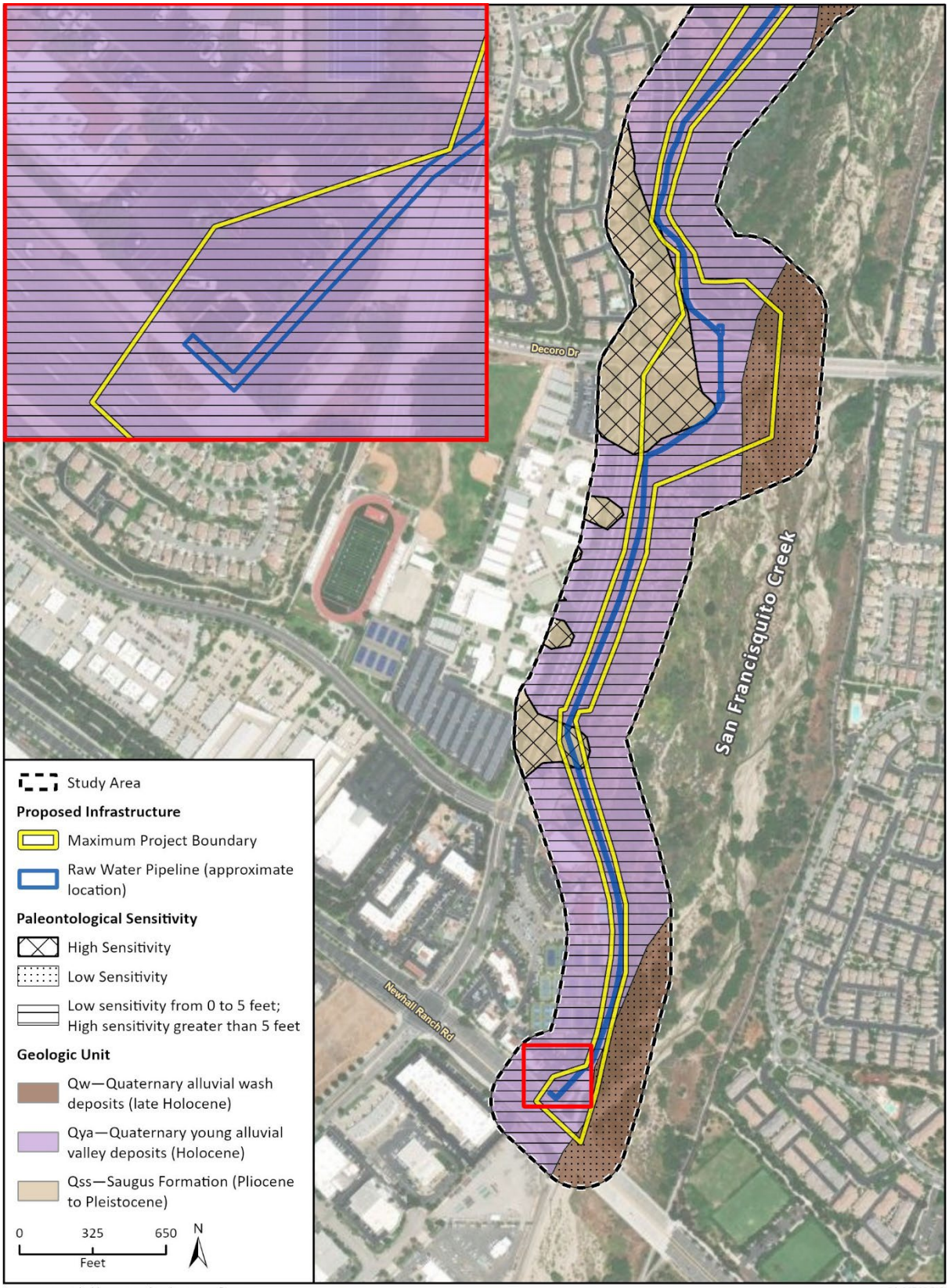
Figure 6a Geologic Map of the Project Site



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Fig X Geologic Map and Paleontological Sensitivity of Project Area_2

Figure 6b Geologic Map of the Project Site



Quaternary wash deposits underlie small portions of the project site and are found east of the project site throughout the alignment (Figure 6a and 6b). Quaternary wash deposits consist of unconsolidated sand and gravel deposited by active streams and rivers, in this case, San Francisquito Creek (Bedrossian and Roffers 2012). These deposits are being actively deposited, so they are considered too young (i.e., less than 5,000 years old; SVP 2010) to preserve paleontological resources. Therefore, Quaternary wash deposits have low paleontological sensitivity.

Quaternary young alluvial valley deposits underlie the majority of the project site (Figure 6a and 6b). They are Holocene in age and consist of unconsolidated or slightly consolidated, poorly sorted, silt, sand and gravel that were deposited in relatively wide stream valleys and floodplains of large rivers (Bedrossian and Roffers 2012). Given their Holocene age, Quaternary young alluvial valley deposits are generally considered too young (i.e., less than 5,000 years old; SVP 2010) to preserve paleontological resources. However, alluvial sediments, such as Quaternary young alluvial valley deposits, increase in age with depth. Additionally, the proximity of surficial exposures of the Saugus Formation, as mapped by Dibblee and Ehrenspeck (1996), suggests the Saugus Formation likely underlies Quaternary young alluvial valley deposits at depths as shallow as five feet. Therefore, areas mapped as Quaternary young alluvial valley deposits have low paleontological sensitivity from zero to five feet below the surface and high paleontological sensitivity greater than five feet below the surface.

The Saugus Formation is mapped at the surface in portions of the project site and likely underlies Quaternary young alluvial valley deposits at relatively shallow depths throughout the project site (Figure 6a and 6b). This geologic unit is Pliocene to Pleistocene in age and consists of light gray or light reddish-brown, pebble- to cobble-conglomerate, sandstone, and small amounts of siltstone (Dibblee and Ehrenspeck 1996). The Saugus Formation is known to produce significant paleontological localities in Los Angeles and Ventura Counties (NHMLA 2025; Paleobiology Database 2025). Therefore, the Saugus Formation has high paleontological sensitivity.

Ground-disturbing activities within previously undisturbed sediments with high paleontological sensitivity could result in significant impacts to paleontological resources. Impacts would be significant if construction activities result in the destruction, damage, or loss of scientifically important paleontological resources and associated stratigraphic and paleontological data. Trenching activities for the raw water pipeline would reach five feet below the surface. Therefore, trenching may encounter paleontological resources in areas mapped as Saugus Formation (Figure 6a and 6b). Further, excavations for jack and bore pits for the pipeline's trenchless installation under Decoro Drive would reach up to 20 feet below the surface. These excavations, which will occur in areas mapped as Quaternary young alluvial valley deposits, may also encounter paleontological resources. Rehabilitation of the existing Well W9 and W10 facilities and construction of the centralized groundwater treatment facility would only involve minor amounts of ground disturbance in areas of previously disturbed sediments; accordingly, these activities are unlikely to encounter paleontological resources. The proposed access route improvements would involve minor amounts of grading of previously disturbed sediments; therefore, these improvements are also not anticipated to encounter paleontological resources.

As discussed above, trenching activities associated with project construction have the potential to encounter paleontological resources and potentially result in the destruction, damage, or loss of these resources resulting in a potentially significant impact. Mitigation is required. Implementation of Mitigation Measure GEO-1 would reduce potential impacts to paleontological resources to a less-than-significant level and would mitigate impacts to these resources through the recovery, identification, and curation of previously unrecovered fossils.

Mitigation Measure

GEO-1 Paleontological Resources Monitoring and Mitigation

- **Qualified Professional Paleontologist.** Prior to excavation, SCV Water shall retain a Qualified Professional Paleontologist, as defined by the Society of Vertebrate Paleontology (SVP 2010), who shall direct all mitigation measures related to paleontological resources.
- **Paleontological Worker Environmental Awareness Program.** Prior to the start of construction, the Qualified Professional Paleontologist or their designee shall conduct a paleontological Worker Environmental Awareness Program (WEAP) training for construction personnel regarding the appearance of fossils and the procedures for notifying paleontological staff should fossils be discovered by construction personnel.
- **Paleontological Monitoring and Salvage.** Full-time paleontological monitoring shall be conducted during ground-disturbing construction activities within previously undisturbed sediments assigned high or undetermined paleontological sensitivity. Paleontological monitoring shall be conducted by a paleontological monitor with experience with collection and salvage of paleontological resources and who meets the minimum standards of the SVP (2010) for a Paleontological Resources Monitor.

The Qualified Professional Paleontologist may recommend monitoring be reduced in frequency or ceased entirely based on geologic observations. Such decisions shall be subject to review and approval by SCV Water. In the event of a fossil discovery by the paleontological monitor or construction personnel, all construction activity within 50 feet of the find shall cease, and the Qualified Professional Paleontologist shall evaluate the find. If the fossil(s) is (are) not scientifically significant, then construction activity may resume. If it is determined that the fossil(s) is (are) scientifically significant, the following shall be completed:

- **Fossil Salvage.** The paleontological monitor shall salvage (excavate and recover) the fossil to protect it from damage/destruction. Typically, fossils can be safely salvaged quickly by a single paleontological monitor with minimal disruption to construction activity. In some cases, larger fossils (such as complete skeletons or large mammal fossils) require more extensive excavation and longer salvage periods. Bulk matrix sampling may be necessary to recover small invertebrates or microvertebrates from within paleontologically sensitive deposits. After the fossil(s) is (are) salvaged, construction activity may resume.
- **Fossil Preparation and Curation**. Fossils shall be identified to the lowest (most-specific) possible taxonomic level, prepared to a curation-ready condition, and curated in a scientific institution with a permanent paleontological collection along with all pertinent field notes, photos, data, and maps. Fossils of undetermined significance at the time of collection may also warrant curation at the discretion of the Qualified Professional Paleontologist.
- **Final Paleontological Mitigation Report.** Upon completion of ground-disturbing activities (or laboratory preparation and curation of fossils, if necessary), the Qualified Professional Paleontologist shall prepare a final report describing the results of the paleontological monitoring efforts. The report shall include a summary of the field and laboratory methods employed; an overview of project geology; and, if fossils were discovered, an analysis of the fossils, including physical description, taxonomic identification, and scientific significance. The report shall be submitted to SCV Water and, if fossil curation occurred, the designated scientific institution.

Significance After Mitigation

Implementation of Mitigation Measure GEO-1 would require preparation of a paleontological resources awareness program and monitoring for paleontological resources, which would facilitate identification and avoidance of paleontological resources within the project site. Mitigation Measure GEO-1 also requires salvage and curation of any fossils encountered during project construction, and documentation of any recovered and scientifically significant fossils. With implementation of Mitigation Measure GEO-1, destruction, damage, or loss of scientifically important fossils would be avoided and impacts would be less than significant.

LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED

8 Greenhouse Gas Emissions

	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?	☐	☐	■	☐

Climate Change and Greenhouse Gases

Climate change is the observed increase in the average temperature of the Earth's atmosphere and oceans along with other substantial changes in climate (such as wind patterns, precipitation, and storms) over an extended period of time. Climate change is the result of numerous, cumulative sources of GHGs. GHGs contribute to the "greenhouse effect," which is a natural occurrence that helps regulate the temperature of the planet. The majority of radiation from the Sun hits the Earth's surface and warms it. The surface in turn radiates heat back towards the atmosphere, known as infrared radiation. Gases and clouds in the atmosphere trap and prevent some of this heat from escaping back into space and re-radiate it in all directions. This process is essential to supporting life on Earth because it warms the planet by approximately 60 degrees Fahrenheit. Emissions from human activities since the beginning of the industrial revolution (approximately 250 years ago) are adding to the natural greenhouse effect by increasing the gases in the atmosphere that trap heat, thereby contributing to an average increase in the Earth's temperature.

Greenhouse gases occur naturally and from human activities. Human activities that produce GHGs include the burning of fossil fuels (coal, oil and natural gas for heating and electricity, gasoline and diesel for transportation); methane from landfill wastes and raising livestock, deforestation activities; and some agricultural practices. GHGs produced by human activities include carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), hydrofluorocarbons (HFC), perfluorocarbons (PFC), and sulfur hexafluoride (SF_6). Emissions of GHGs affect the atmosphere directly by changing its chemical composition while changes to the land surface indirectly affect the atmosphere by changing the way in which the Earth absorbs gases from the atmosphere. Potential impacts of climate change in California may include loss in snowpack, sea level rise, more extreme heat days per year, more high ozone days, more large forest fires, and more drought years (California Natural Resources Agency 2019).

Significance Thresholds

Based on Appendix G of the CEQA Guidelines, impacts related to GHG emissions from the proposed project would be significant if the project would:

- Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment; and/or
- Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases.

The vast majority of individual projects do not generate sufficient GHG emissions to directly influence climate change. However, physical changes caused by a project can contribute incrementally to significant cumulative effects, even if individual changes resulting from a project are limited. As a result, the issue of climate change typically involves an analysis of whether a project's contribution towards an impact would be cumulatively considerable. "Cumulatively considerable" means that the incremental effects of an individual project are significant when viewed in connection with the effects of past projects, other current projects, and probable future projects (CEQA Guidelines Section 15064[h][1]).

To determine a project-specific threshold, guidance on GHG significance thresholds in the region from SCAQMD, the air district in which the project site is located, was used. The SCAQMD's GHG CEQA Significance Threshold Working Group considered a tiered approach to determine the significance of residential and commercial projects. The draft tiered approach is outlined in meeting minutes dated September 29, 2010 (SCAQMD 2010):

- **Tier 1.** If the project is exempt from further environmental analysis under existing statutory or categorical exemptions, there is a presumption of less than significant impacts with respect to climate change. If not, then the Tier 2 threshold should be considered.
- **Tier 2.** Consists of determining whether the project is consistent with a GHG reduction plan that may be part of a local general plan, for example. The concept embodied in this tier is equivalent to the existing concept of consistency in CEQA Guidelines Section 15064(h)(3), 15125(d) or 15152(a). Under this Tier, if the proposed project is consistent with the qualifying local GHG reduction plan, it is not significant for GHG emissions. If there is not an adopted plan, then a Tier 3 approach would be appropriate.
- **Tier 3.** Establishes a screening significance threshold level to determine significance. The Working Group has provided a recommendation of 10,000 MT CO_2e per year for industrial projects and 3,000 MT CO_2e per year for nonindustrial projects.
- **Tier 4.** Establishes a service population threshold to determine significance. The Working Group has provided a recommendation of 4.8 MT CO_2e per year for land use projects.

Tier 1 would not apply to the project as it is not exempt from environmental analysis. For Tier 2, the City of Santa Clarita does not have a qualified GHG reduction plan in its general plan or climate action plan. As described above, when the tiered approach is applied to a proposed project, and the project is found not to comply with Tier 1 or Tier 2, the project's emissions are compared against a screening threshold, as described above, for Tier 3. The screening threshold formally adopted by SCAQMD is an "interim" screening threshold for stationary source industrial projects where the SCAQMD is the lead agency under CEQA. The threshold was termed "interim" because, at the time, SCAQMD anticipated that CARB would be adopting a statewide significance threshold that would inform and provide guidance to SCAQMD in its adoption of a final threshold. However, a statewide

threshold was not adopted, and the interim threshold remains in effect. For projects for which SCAQMD is not a lead agency, no screening thresholds have been formally adopted. However, the SCAQMD Working Group has recommended a threshold of 10,000 MT CO_2e per year for industrial projects and 3,000 MT CO_2e per year for residential and commercial projects. SCAQMD determined that these thresholds would "capture" 90 percent of GHG emissions from these sectors, with "capture" meaning that 90 percent of total emissions from all new projects would be subject to some type of CEQA analysis. Therefore, this analysis utilizes SCAQMD's 3,000 MT CO_2e per year threshold for non-industrial projects as the applicable project-specific threshold, in accordance with Tier 3. The SCAQMD's 3,000 MT CO_2e per year threshold is frequently used by jurisdictions across Southern California to determine GHG emissions impacts from non-industrial projects.

Methodology

Calculations of CO_2, CH_4, and N_2O emissions are provided to identify the magnitude of potential project effects. The analysis focuses on CO_2, CH_4, and N_2O because these make up 98 percent of all GHG emissions by volume and are the GHG emissions the project would emit in the largest quantities (Intergovernmental Panel on Climate Change [IPCC] 2014). Emissions of all GHGs are converted into their equivalent global warming potential in terms of CO_2 (i.e., CO_2e).[3] Minimal amounts of other GHGs (such as chlorofluorocarbons [CFCs]) would be emitted; however, these other GHG emissions would not substantially add to the total GHG emissions. GHG emissions associated with project construction and operation were estimated using CalEEMod, version 2022.1, with the assumptions described in Section 3, *Air Quality,* in addition to the following:

- The project's CalEEMod model accounts for the project's anticipated annual electricity consumption of up to 330 megawatt-hours per year.
- The CalEEMod model assumes zero water consumption and solid waste and wastewater generation. Electricity required to convey water is accounted for in the aforementioned electricity estimate.
- To account for the project's anticipated lifespan of 20 years, GHG emissions from construction of the proposed project were amortized over a 20-year period and added to annual operational emissions to determine the project's total annual GHG emissions.

a. Would the project generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment?

Construction of the proposed project would generate temporary GHG emissions, primarily from operation of construction equipment at the project site as well as from vehicles transporting construction workers to and from the project site and heavy trucks to transport demolished and new materials and soil import/export. Calculations of CO_2, methane, and nitrous oxide emissions are provided to identify the magnitude of potential project effects. As shown in Table 10, project construction would result in GHG emissions of approximately 251 metric tons (MT) of CO_2e in total, or approximately 13 MT of CO_2e when amortized over a 20-year period pursuant to SCAQMD guidance.

[3] Global warming potential measures the relative climate impact of greenhouse gases compared to CO_2 over a specific time horizon; CO_2e (carbon dioxide equivalent) expresses the total impact of all greenhouse gases in terms of the amount of CO_2 that would have the same effect.

Table 10 Estimated Construction GHG Emissions

Year	Project Emissions (metric tons CO_2e)
Total	251
Total Amortized over 20 Years (per year)	13

See Appendix A for CalEEMod worksheets.
CO_2e = carbon dioxide equivalent

Operations and maintenance of the proposed project would generate GHG emissions resulting from increased energy usage at the project site. The project would result in up to two heavy duty truck trips per year, generating in a minor increase in mobile source emissions. As shown in Table 11, project operation would generate 316 MT of CO_2e per year. Combined with amortized construction emissions, the project's total annual emissions would be 329 MT of CO_2e per year. Therefore, the project would not exceed the SCAQMD Tier 3 threshold of 3,000 MT of CO_2e per year, and the project would not generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment. Impacts would be less than significant.

Table 11 Combined Annual Emissions of Greenhouse Gases

Emission Source	Annual Emissions (CO_2e in metric tons per year)
Construction	13
Operational	
Mobile	1
Area	<1
Energy	315
Total	**329**

See Appendix A for CalEEMod worksheets.
CO_2e = carbon dioxide equivalent

LESS-THAN-SIGNIFICANT IMPACT

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

In 2023, SCV Water adopted the SCV Water Sustainability Plan to guide operational sustainability actions through 2045, in alignment with the state's current goals, legislation, and mandates (SCV Water 2023). The proposed project would be potentially consistent with measures and actions outlined in the SCV Water Sustainability Plan as it would reduce SCV Water's dependence on imported water supplies, and would not involve a substantial increase in vehicle trips. However, the Sustainability Plan did not undergo CEQA review and is therefore not a qualified GHG reduction plan that can be used for tiering and streamlining project-level analysis of GHG emissions pursuant to CEQA Guidelines 15183.5.

Transportation-related policies set forth in CARB's 2022 Scoping Plan are not applicable because the project involves minimal operational mobile trips. With regard to energy consumption, the project's electricity demand would be served by Southern California Edison, which is required to increase its renewable energy procurement to 100 percent by 2045 in accordance with Senate Bill 100 targets, thereby reducing the project's primary source of GHG emissions. The project would be 100 percent

electric and would not require consumption of natural gas. Similarly, the project's minimal operational mobile trips would be consistent with policies set forth in the SCAG RTP/SCS. Regardless, the proposed project does not constitute a "regional significant project" to which the SCAG RTP/SCS would apply. Furthermore, as shown under threshold (a), the project would result in minor GHG emissions from construction and operation compared to the applicable threshold, indicating the project's GHG emissions would not conflict with plans to reduce GHG emissions. Therefore, the project would not conflict with any applicable plan, policy, or regulation adopted for the purpose of reducing GHG emissions, and impacts would be less than significant.

LESS-THAN-SIGNIFICANT IMPACT

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9 Hazards and Hazardous Materials

	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 0.25 mile of an existing or proposed school?	☐	☐	■	☐
d. Be located on a site that is included on a list of hazardous material 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 in 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?	☐	■	☐	☐

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

Construction of the proposed project would temporarily increase the transport and use of hazardous materials during the use of construction vehicles and equipment. Limited quantities of miscellaneous hazardous substances, such as diesel fuel, oil, solvents, and other similar materials, would be brought onto the project site, used, and stored during the construction period. Any use of potentially hazardous materials during construction of the proposed project would be required to comply with all local, state, and federal regulations regarding the handling of hazardous materials, which would minimize the potential for the project to create a significant hazard to the public or the environment. These materials would be disposed off-site in accordance with applicable laws pertaining to the handling and disposal of hazardous waste. The transport, use, and storage of hazardous materials during construction would be conducted in accordance with applicable federal and state laws, such as the Hazardous Materials Transportation Act, California Hazardous Material Management Act, and California Code of Regulations, Title 22.

During operation, liquid sodium hypochlorite (chlorine) and liquid ammonium sulfate would be stored at the proposed facility in a completely enclosed structure with proper containment and venting. Sodium hypochlorite is a liquid disinfection agent added to the water and is commonly referred to as "bleach." Sodium hypochlorite is not the equivalent of chlorine gas, and chlorine gas would not be used or released during project operation. Chemical deliveries to the proposed disinfection building are estimated to occur weekly. These materials would be contained within vessels specifically engineered for safe storage. Furthermore, the chemicals stored on site would not be considered hazardous due to low concentrations of ammonia and chlorine. However, in accordance with standard operating practice, SCV Water would submit an emergency response/contingency plan as part of a Hazardous Materials Business Plan to the California Environmental Reporting System for the proposed facility. Spent resin from the PFAS treatment vessels, which may be considered a hazardous waste depending on the concentration of PFAS, would be removed one to two times a year by the resin supplier who would be required to transport and dispose of the material in accordance with all applicable regulations, such as the Hazardous Materials Transportation Act, California Hazardous Material Management Act, and California Code of Regulations, Title 22. Compliance with existing local, state, and federal regulations regarding the handling of hazardous materials during construction and operation would not expose the public or the environment to a significant hazard through the routine transport, use, or disposal of hazardous materials. Impacts would be less than significant.

LESS-THAN-SIGNIFICANT IMPACT

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?

The presence of hazardous materials during project construction activities, including but not limited to ground-disturbing activities, could result in an accidental upset or release of hazardous materials if they are not properly stored and secured. Hazardous materials used during project construction would be disposed of off-site in accordance with all applicable laws and regulations, including but not limited to the CBC and California Fire Code, as well the regulations of the federal and state Occupational Safety and Health Administrations. Nonetheless, upset or accident conditions could result in the unanticipated spill or release of hazardous materials such as vehicle and equipment fuels during project construction, potentially introducing a hazard to the public and/or the

environment, which could result in a potentially significant impact especially if materials are released into the San Francisquito Creek. Therefore, implementation of Mitigation Measure HAZ-1 would be required to provide an additional level of safety during project construction, thereby reducing the potential impact to the public and environment due to release of hazardous materials during upset or accident conditions to a less-than-significant level.

As discussed under threshold 9(a), operation and maintenance of the project would involve the routine use and storage of sodium hypochlorite and liquid ammonium sulfate, which are not considered hazardous materials. Spent resin from the PFAS treatment vessels, which may be considered a hazardous waste depending on the concentration of PFAS, would be removed one to two times a year by the resin supplier who would be required to transport and dispose of the material in accordance with all applicable regulations, such as the Hazardous Materials Transportation Act, California Hazardous Material Management Act, and California Code of Regulations, Title 22. Because of the static nature of the spent resin, any accidents occurring during the removal, transport, and disposal of the resin would be unlikely to create a significant hazard to the public or the environment. Therefore, project operation would not 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.

Mitigation Measure

HAZ-1 Hazardous Materials Management and Spill Control Plan

SCV Water shall require its construction contractor(s) to submit a Hazardous Materials Management and Spill Control Plan (HMMSCP), including a project-specific contingency plan for hazardous materials and waste operations to SCV Water for review and approval. The HMMSCP shall establish policies and procedures consistent with applicable codes and regulations, including, but not limited to, the California Building and Fire Codes, as well as regulations promulgated by the United States Department of Labor, United States Occupational Safety and Health Administration, and California Division of Occupational Safety and Health. The HMMSCP shall articulate hazardous materials handling practices to prevent the accidental spill or release of hazardous materials during project construction.

Significance After Mitigation

Mitigation Measure HAZ-1 would require preparation and implementation of a HMMSCP with appropriate procedures to implement in the event of an accidental spill or release of hazardous materials during project construction. Therefore, implementation of Mitigation Measure HAZ-1 would reduce impacts to the public or the environment related to the release of hazardous materials into the environment during reasonably foreseeable upset and accident conditions to a less-than-significant level.

LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED

c. Would the project emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within 0.25 mile of an existing or proposed school?

The nearest school to the project site is Valencia High School, located approximately 130 feet west of the nearest project component (the proposed underground pipeline) and approximately 0.5 mile southwest of the proposed groundwater treatment and disinfection facility. As discussed under thresholds (a) and (b), the transport, use, and storage of hazardous materials during construction and operation of the project would be conducted in accordance with applicable State and federal laws. Hazardous materials associated with project operation, including sodium hypochlorite and liquid ammonium sulfate, would not produce hazardous air emissions under normal operating conditions when handled properly by trained personnel (i.e., the SCV Water operators). In addition, sodium hypochlorite is not the equivalent of chlorine gas, and chlorine gas would not be used or released during project operation. Furthermore, implementation of Mitigation Measure HAZ-1 would be required to provide an additional level of safety during project construction, further reducing the potential for accidental spills of hazardous materials to affect Valencia High School. As a result, impacts would be less than significant.

LESS-THAN-SIGNIFICANT IMPACT

d. Would the project be located on a site that is included on a list of hazardous material 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?

The following databases and listings compiled pursuant to Government Code Section 65962.5 were reviewed on April 18, 2025, for known hazardous materials contamination at the project site:

- State Water Resources Control Board - GeoTracker search for leaking underground storage tanks (LUST) and other cleanup sites (SWRCB 2025);
- California Department of Toxic Substances Control - EnviroStor database for hazardous waste facilities or known contamination sites (California Department of Toxic Substances Control 2025); and
- The Cortese List, including solid waste disposal sites and sites with active cease and desist or cleanup and abatement orders identified by the SWRCB (California Environmental Protection Agency 2025).

The Well W10 site is approximately 600 feet northeast of a listed site, the Plaza Del Rancho Shopping Center, which contains a former dry cleaning facility that resulted in low concentrations of perchloroethylene (PCE) contamination in soil and soil vapor. Soil and groundwater samples were conducted in 2000, and samples did not contain detectable PCE or other volatile organic compounds. The Los Angeles Regional Water Quality Control Board determined PCE soil and soil vapor concentrations did not exceed cleanup goals and that groundwater was not impacted (Los Angeles Regional Water Quality Control Board 2002). Therefore, the project would not create a significant hazard to the public or the environment related to location on a hazardous materials site. No impact would occur.

NO IMPACT

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 closest public airport to the project site is Whiteman Airport, located approximately 16 miles to the southeast of the project site. The project site is not located in an area covered by the airport's land use plan or within two miles of a public or public use airport. As such, the project would not result in a safety hazard or excessive aircraft noise for people working at the project site during construction or operation. No impact would occur.

NO IMPACT

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

During project construction, equipment staging would primarily occur on site and on vacant land directly east of the project site and would not require lane or road closures. The project would not require road closures and does not include changes to the existing street system that could result in inadequate emergency access. Project operation and maintenance would not introduce new activities or substantial operational traffic with the potential to interfere with emergency response and evacuations. Therefore, no operational impacts related to emergency response plans and emergency evacuation plans would occur.

NO IMPACT

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

As discussed in Section 20, *Wildfire,* the project site is not located in a State Responsibility Area or designated as a Very High Fire Hazard Severity Zone (VHFHSZ) (California Department of Forestry and Fire Protection [CAL FIRE] 2022a). The nearest VHFHSZ is located approximately 100 feet west of the project site within developed land along Dickason Drive, north of Decoro Drive. The project is located within a moderate-high fire hazard severity zone, in the local responsibility area. It is adjacent to brush-covered open space vegetation including highly combustible native plant communities which could pose a fire risk. Heavy duty equipment used during construction that may produce sparks that could ignite vegetation would be limited through regulatory compliance. California PRC Section 4442 mandates the use of spark arrestors, which prevent the emission of flammable debris from exhaust on earth-moving and portable construction equipment with internal combustion engines that are operating on any forest-covered, brush-covered, or grass-covered land. PRC Section 4428 requires construction contractors to maintain fire suppression equipment during the highest fire danger period (April 1 to December 1) when operating on or near any forest-covered, brush-covered, or grass-covered land. These regulations would minimize the risk of fire resulting from project construction activities. Nevertheless, construction activities would have the potential to result in wildland fires due to proximity to brush-covered land, and impacts would be potentially significant. Implementation of Mitigation Measure HAZ-2 would be required to reduce construction impacts to a less-than-significant level.

Project operation would not include components with the potential to ignite wildland fires. Therefore, project operation would not expose people or structures, either directly or indirectly, to a significant risk of loss, injury, or death involving wildland fires, and no impact would occur.

Mitigation Measure

HAZ-2 Fire Hazards Measures

During project construction, staging areas and other areas designated for construction shall be cleared of dried vegetation and other materials that could ignite. Construction equipment with spark arrestors shall be maintained in good working order. In addition, construction crews shall have a spotter during electrical installation activities who shall stop work should accidental sparks or other fire-inducing hazards occur. The spotter and construction crews shall take immediate action to remediate the hazard to safe conditions. Electrical work shall continue when approval by a site manager is granted that the hazard has been remediated. Other construction equipment, including those with hot vehicle catalytic converters, shall be kept in good working order and used only within cleared construction areas. During project construction, contractors shall require vehicles and crews to have access to functional fire extinguishers.

Significance After Mitigation

Mitigation Measure HAZ-2 would require the project contractor(s) to implement fire prevention measures such that the potential to ignite wildland fires would be minimized. Therefore, implementation of Mitigation Measure HAZ-2 would reduce impacts to a less-than-significant level.

LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED

10 Hydrology and Water Quality

	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?	☐	☐	■	☐

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

Construction

As stormwater flows over a construction site, it can pick up sediment, debris, and chemicals, and transport them to receiving water bodies. Temporary site preparation and trenching activities associated with the project may result in soil erosion. Construction activities could also affect water quality in the event of an accidental fuel or hazardous materials leak or spill. Receiving water bodies in the vicinity of the project site include San Francisquito Creek to the east.

As previously discussed in Section 7, *Geology and Soils*, construction activities would be required to comply with the NPDES Construction General Permit (Order No. 2009-2009-DWQ, as amended) because project construction would disturb more than one acre of land. The NPDES Construction General Permit requires preparation and implementation of a project-specific SWPPP, which requires operators to implement pollution prevention controls to minimize the discharge of pollutants from stormwater and spilled or leaked materials. Such controls include installation of silt fencing and sandbag barriers, covering of stockpiles, use of desilting basins, and post-construction revegetation and drainage requirements. In addition, pursuant to the NPDES Construction General Permit requirements, inspections would be conducted on the project site once every seven calendar days and within 24 hours of a 0.25-inch storm event. Compliance with applicable regulatory requirements would minimize potential surface water quality impacts associated with sediment erosion during project construction.

There is potential for accidental leaks and spills of hazardous materials at the surface during project construction, which could result in potentially significant impacts to water quality if hazardous materials enter San Francisquito Creek. Mitigation Measure HAZ-1, as described in Section 9, *Hazards and Hazardous Materials*, would reduce the potential for accidental leaks and spills of hazardous materials by requiring preparation and implementation of an HMMSCP. With implementation of Mitigation Measure HAZ-1, project construction would not violate water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality, and impacts would be less than significant.

Operation

The proposed project would include replacement of a groundwater treatment and disinfection facility at Well W9, replacement of an underground raw water pipeline, demolition of existing Well W9 and W10 and associated equipment and a new well pump, motor, and electrical equipment installed at both the Well W9 and Well W10 sites. The proposed groundwater treatment and disinfection facility at Well W9 would also include a discharge pipeline, which would convey treated, discharged groundwater from the treatment facility to San Francisquito Creek. The proposed discharge would be covered under SCV Water's existing Statewide General Permit for Drinking Water System Discharges to the Waters of the United States No 4DW0768 and thus would be required to comply with the water quality standards established in this permit. As such, project operation would not violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality. Impacts would be less than significant.

LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED

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 project site overlies the Santa Clara River Valley East Groundwater Subbasin. The Santa Clara River Valley East Groundwater Subbasin is designated as a high-priority groundwater basin under the Sustainable Groundwater Management Act (SGMA) but is not critically over-drafted (SCV GSA 2022). The SCV GSA manages the basin and has adopted the Santa Clara River Valley East Groundwater Subbasin GSP to guide its efforts (SCV GSA 2022).

The proposed groundwater treatment and disinfection facility would restore the use of Wells W9 and W10. The purpose of the proposed project is to reduce SCV Water's dependence on imported water supplies by restoring its groundwater production capacity. The proposed project would not result in an increase in SCV Water's basin-wide groundwater pumping as compared to baseline conditions when Wells W9 and W10 were operational. Thus, the project would not substantially decrease basin-wide groundwater supplies such that the project may impede sustainable groundwater management of the basin, and no impact would occur.

The project includes reactivation of existing groundwater Wells W9 and W10 and operation of a new treatment facility. Groundwater pumping would occur continuously (24 hours/day, 7 days/week) with an estimated maximum flow rate of 2,000 gallons per minute and a total annual withdrawal of up to 3,230 acre-feet, depending on hydrologic year type and management constraints. This pumping rate is consistent with historical extraction volumes for the site and would not exceed the modeled limits established in the Santa Clara River Valley East Groundwater Subbasin Groundwater Sustainability Plan.

To avoid substantial depletion of groundwater resources, SCV Water would operate the wells in compliance with Section 9.5.5 of the GSP, which outlines monitoring and adaptive management strategies to protect groundwater-dependent ecosystems and avoid exceeding thresholds for interconnected surface water depletion. Implementation of these procedures would ensure the project does not conflict with sustainable groundwater management targets, recharge objectives, or cause long-term adverse impacts on basin conditions.

The project would not substantially increase impervious surfaces on the project site as the proposed groundwater treatment and disinfection facility would be located in a previously disturbed, partially paved area near the existing Well W9. Regardless, stormwater runoff from the groundwater treatment and disinfection facility would be discharged via the existing storm drainage outlet pipeline to San Francisquito Creek where it would have the opportunity to percolate into the underlying groundwater basin. Therefore, the project would not interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin, and impacts would be less than significant.

LESS-THAN-SIGNIFICANT IMPACT

c.(i) 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 result in substantial erosion or siltation on- or off-site?

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

c.(iii) 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 that would 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?

c.(iv) 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 impede or redirect flood flows?

The project site is adjacent to and partially overlaps with San Francisquito Creek. Portions of the proposed project are located within a 500-year or a 100-year floodplain, and are directly adjacent to a flood zone boundary (Federal Emergency Management Agency 2025). The proposed treatment facility would result in the addition of approximately 6,300 square feet of impervious surfaces to the project site. In addition, the project would include an approximately 200-foot groundwater discharge pipeline between the facility and San Francisquito Creek. Discharge via this pipeline would be infrequent and relatively short-term, and this activity would be generally consistent with raw water discharges from Well W9 which previously occurred when the well was operational. As such, this discharge would have minimal potential to result in off-site flooding. Furthermore, the net change in surface runoff discharged to San Francisquito Creek from this location as compared to existing conditions would be minimal under the proposed project because runoff from this location currently partially discharges to the creek. As such, the addition of impervious surfaces would not result in substantial erosion or siltation; increase the rate or amount of surface runoff such that on- or off-site flooding occurs; exceed stormwater drainage systems or provide substantial additional sources of polluted runoff; or impede or redirect flood flows. Impacts would be less than significant.

LESS THAN SIGNIFICANT IMPACT

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

The nearest body of water that could be subject to seiche is Castaic Lake, approximately 6 miles northwest of the project site. Given this distance and intervening topography, the project site is not at risk of inundation due to seiche. The project site is approximately 29 miles north of the Pacific Ocean and is therefore not located in a tsunami hazard zone. Portions of the proposed project are located within a 500-year or 100-year floodplain and would directly adjacent to a flood zone boundary (Federal Emergency Management Agency 2025). However, project components within the flood hazard areas would include the proposed raw water pipeline, which would be located belowground and would not contain pollutants that could be released in the event of inundation. The proposed treatment and disinfection facility, where potentially hazardous materials would be stored, would be located outside of the flood hazard areas. Therefore, the project site is not at risk

of inundation with no potential to release pollutants due to project inundation. Impacts would be less than significant.

LESS-THAN-SIGNIFICANT IMPACT

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

The project is subject to the requirements of the Los Angeles Regional Water Quality Control Board's Basin Plan for the Coastal Watersheds of Los Angeles and Ventura Counties (Los Angeles Regional Water Quality Control Board 2014). As described under threshold 10(a), the project would be required to comply with the NPDES Construction General Permit to protect water quality during construction. The NPDES Construction General Permit requires preparation and implementation of a project specific SWPPP, which requires operators to implement pollution prevention controls to minimize the discharge of pollutants from stormwater and spilled or leaked materials. Compliance with applicable regulatory requirements would minimize potential surface water quality impacts associated with sediment erosion during project construction. In addition, pursuant to the requirements of SCV Water's existing Statewide General Permit for Drinking Water System Discharges to the Waters of the United States (WDID No. 4DW0768), SCV Water would be required to implement BMPs that would minimize sediment discharge in stormwater runoff during project operation via the use of erosion control measures. As a result, the project would not conflict with or obstruct implementation of the applicable water quality control plan, and impacts would be less than significant.

The project site overlies the Santa Clara River Valley East Groundwater Subbasin, which is subject to the Santa Clara River Valley East Groundwater Subbasin GSP (SCV GSA 2022). As discussed under threshold 10(b), the proposed project would not result in a change in the amount of groundwater extracted by SCV Water from the Santa Clara River Valley East Groundwater Subbasin and would not substantially interfere with groundwater recharge. In addition, as discussed in Section 4, *Biological Resources*, the project would not result in adverse impacts to groundwater-dependent ecosystems because reactivated operation of existing Wells W9 and W10 would involve individual monitoring and control of each well pump through SCV Water's supervisory control and data acquisition system. This system allows SCV Water to operate one or both wells as needed while remaining within the groundwater pumping volumes modeled in the Santa Clara River Valley East GSP. Groundwater extraction would be consistent with historical rates and subject to the monitoring and management actions outlined in Section 9.5.5 of the GSP, which are designed to prevent depletion of interconnected surface waters and avoid undesirable results to groundwater-dependent ecosystems. With compliance with the GSP, the project would not substantially decrease groundwater supplies or interfere with groundwater recharge in a way that would impede sustainable groundwater management of the basin. Impacts would be less than significant.

LESS THAN SIGNIFICANT IMPACT

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11 Land Use and Planning

	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?	☐	☐	■	☐

a. Would the project physically divide an established community?

The project consists of rehabilitation and construction of water infrastructure facilities in a residential and natural area in the city of Santa Clarita. Rehabilitation of Wells W9 and W10 and construction of the groundwater treatment and disinfection facility at the Well W9 location would not change their location or function. The proposed pipelines would be located underground and would not physically divide an existing roadway, neighborhood, or other connecting feature. Therefore, the project would not physically divide an established community, and no impact would occur.

NO IMPACT

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?

The project site includes areas zoned as Open Space and North Valencia II Commercial (City of Santa Clarita 2025). However, according to Government Code Section 53091, building and zoning ordinances of a county or city shall not apply to the location or construction of facilities for production, generation, storage, treatment, or transmission of water. As such, the project would not be subject to the City's building and zoning ordinances (Santa Clarita Municipal Code Titles 17 and 18) or the North Valencia Specific Plan, which establishes additional zoning regulations for the project area. However, SCV Water would obtain the required vegetation removal permit from the Santa Clarita City Manager prior to any vegetation removal (Santa Clarita Municipal Code Section 14.10.060).

The City of Santa Clarita General Plan includes Objective LU 7.2 for water service, which states the City shall "ensure an adequate water supply to meet the demands of growth" (City of Santa Clarita 2011). Objective CO 4.2 also aims to "work with water providers and other agencies to identify and implement programs to increase water supplies to meet the needs of future growth" (City of Santa Clarita 2011). The proposed project would enable SCV Water to continue providing its existing customers with a safe, reliable water supply by enabling SCV Water to reactivate Wells W9 and W10 and replacing the groundwater treatment and disinfection facility at W9. Therefore, the project

would further implementation of Objective LU 7.2 and Objective CO 4.2 by constructing water infrastructure improvements to meet necessary water supply requirements, protect the long-term security of water supplies, and safeguard groundwater quality.

The project would also be potentially consistent with the Open Space land use designation because open space can be used for managing production of resources, such as groundwater, according to the City's General Plan Conservation and Open Space Element. The project would not 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, and impacts would be less than significant.

LESS THAN SIGNIFICANT IMPACT

12 Mineral Resources

	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?	☐	☐	☐	■

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?

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?

According to the City's General Plan Final EIR, the project site is not located within a mineral resource zone (City of Santa Clarita 2010). Additionally, the site is not designated or zoned for mineral resource extraction, and no mineral resource extraction activities are currently occurring on site. As nearby residential and school uses are incompatible with mineral extraction, no such operations are reasonably anticipated at the site. Therefore, the project would result in no impact to mineral resources.

NO IMPACT

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13 Noise

	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?	☐	☐	☐	■

Overview of Noise and Vibration

Noise

Sound is a vibratory disturbance created by a moving or vibrating source, which is capable of being detected by the hearing organs. Noise is defined as sound that is loud, unpleasant, unexpected, or undesired and may therefore be classified as a more specific group of sounds. The effects of noise on people can include general annoyance, interference with speech communication, sleep disturbance, and, in the extreme, hearing impairment (California Department of Transportation [Caltrans] 2013).

Noise levels are commonly measured in decibels (dB) using the A-weighted sound pressure level (dBA). The A-weighting scale is an adjustment to the actual sound pressure levels so that they are consistent with the human hearing response, which is most sensitive to frequencies around 4,000 Hertz and less sensitive to frequencies around and below 100 Hertz. Decibels are measured on a logarithmic scale that quantifies sound intensity in a manner similar to the Richter scale used to measure earthquake magnitudes. A doubling of the energy of a noise source, such as doubling of traffic volume, would increase the noise level by 3 dB; dividing the energy in half would result in a 3 dB decrease (Caltrans 2013).

Human perception of noise has no simple correlation with sound energy. The perception of sound is not linear in terms of dBA or in terms of sound energy. Two sources do not “sound twice as loud” as one source. It is widely accepted that the average healthy ear can barely perceive changes of 3 dBA,

increase or decrease (i.e., twice the sound energy); that a change of 5 dBA is readily perceptible (eight times the sound energy); and that an increase (or decrease) of 10 dBA sounds twice (half) as loud (10.5 times the sound energy) (Caltrans 2013).

Sound changes in both level and frequency spectrum as it travels from the source to the receptor. The most obvious change is the decrease in level as the distance from the source increases. The manner by which noise reduces with distance depends on factors such as the type of sources (e.g., point or line, the path the sound will travel, site conditions, and obstructions). Noise levels from a point source typically attenuate, or drop off, at a rate of 6 dBA per doubling of distance (e.g., construction, industrial machinery, ventilation units). Noise from a line source (e.g., roadway, pipeline, railroad) typically attenuates at about 3 dBA per doubling of distance (Caltrans 2013). The propagation of noise is also affected by the intervening ground, known as ground absorption. A hard site, such as a parking lot or smooth body of water, receives no additional ground attenuation and the changes in noise levels with distance (drop-off rate) result simply from the geometric spreading of the source. An additional ground attenuation value of 1.5 dBA per doubling of distance applies to a soft site (e.g., soft dirt, grass, or scattered bushes and trees) (Caltrans 2013). Noise levels may also be reduced by intervening structures; the amount of attenuation provided by this "shielding" depends on the size of the object and the frequencies of the noise levels. Natural terrain features such as hills and dense woods, and man-made features such as buildings and walls, can significantly alter noise levels. Generally, any large structure blocking the line of sight will provide at least a 5-dBA reduction in source noise levels at the receptor (Federal Highway Administration [FHWA] 2011). Structures can substantially reduce exposure to noise as well. The FHWA's guidelines indicate that modern building construction generally provides an exterior-to-interior noise level reduction of 35 dBA for masonry buildings with closed windows.

The impact of noise is not a function of loudness alone. The time of day when noise occurs and the duration of the noise are also important factors of project noise impact. Most noise that lasts for more than a few seconds is variable in its intensity. Consequently, a variety of noise descriptors have been developed. L_{eq} is one of the most frequently-used noise metrics; it considers both duration and sound power level. The L_{eq} is defined as the single steady-state A-weighted sound level equal to the average sound energy over a time period. When no time period is specified, a 1-hour period is assumed. The L_{max} is the highest noise level within the sampling period, and the L_{min} is the lowest noise level within the measuring period. Normal conversational levels are in the 60 to 65-dBA L_{eq} range; ambient noise levels greater than 65 dBA L_{eq} can interrupt conversations (Federal Transit Administration [FTA] 2018).

Noise that occurs at night tends to be more disturbing than that occurring during the day. Community noise is usually measured using Day-Night Average Level (DNL), which is the 24-hour average noise level with a +10 dBA penalty for noise occurring during nighttime hours (10:00 p.m. to 7:00 a.m.); it is also measured using Community Noise Equivalent Level (CNEL), which is the 24-hour average noise level with a +5 dBA penalty for noise occurring from 7:00 p.m. to 10:00 p.m. and a +10 dBA penalty for noise occurring from 10:00 p.m. to 7:00 a.m. (Caltrans 2013).

Vibration

Groundborne vibration of concern in environmental analysis consists of the oscillatory waves that move from a source through the ground to adjacent buildings or structures, and vibration energy may propagate through the buildings or structures. Vibration may be felt, may manifest as an audible low-frequency rumbling noise (referred to as groundborne noise), and may cause windows, items on shelves, and pictures on walls to rattle. Although groundborne vibration is sometimes

noticeable in outdoor environments, it is almost never annoying to people who are outdoors. The primary concern from vibration is that it can be intrusive and annoying to building occupants at vibration-sensitive land uses and may cause structural damage. Typically, ground-borne vibration generated by manmade activities attenuates rapidly as distance from the source of the vibration increases. Vibration amplitudes are usually expressed in peak particle velocity (PPV) or root mean squared (RMS) vibration velocity. The PPV and RMS velocity are normally described in inches per second (in/sec). PPV is defined as the maximum instantaneous positive or negative peak of a vibration signal. PPV is often used as it corresponds to the stresses that are experienced by buildings (Caltrans 2020). High levels of groundborne vibration may cause damage to nearby buildings or structures; at lower levels, groundborne vibration may cause minor cosmetic (i.e., non-structural damage) such as cracks. These vibration levels are nearly exclusively associated with high-impact activities such as blasting, pile-driving, vibratory compaction, demolition, drilling, or excavation.

Sensitive Receptors

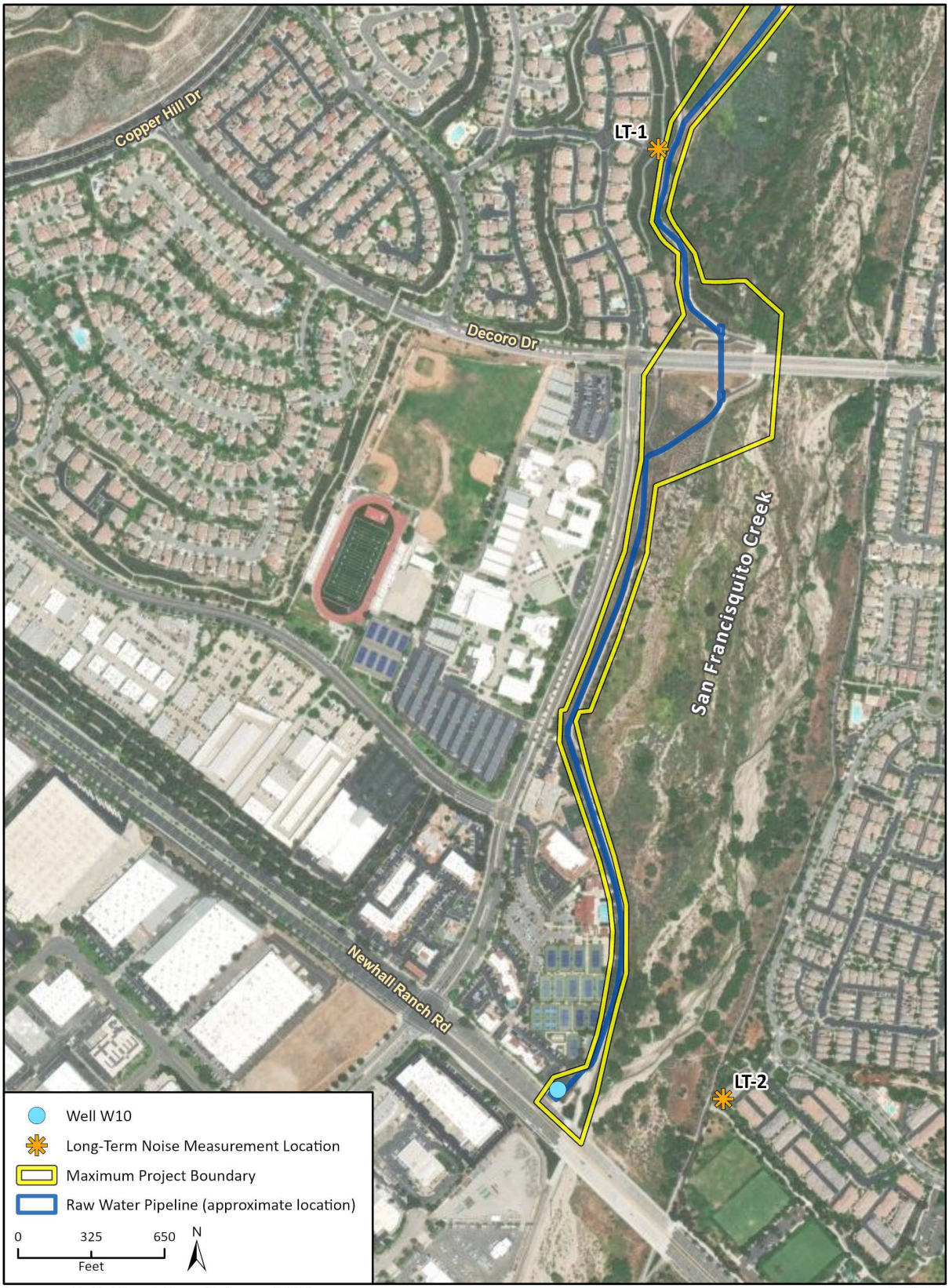
Noise exposure goals for various types of land uses reflect the varying noise sensitivities associated with those uses. The City's Noise Element describes noise-sensitive land uses as schools, hospitals, childcare, senior care, congregate care, churches, and all types of residential uses (City of Santa Clarita 2011). The nearest noise-sensitive receptors to the northern access road portion of the project site consist of residences along North Pietro Drive, which are located approximately 70 feet to the west. The nearest noise-sensitive receptors to the southern pipeline alignment portion of the project site consist of residences, approximately 80 feet to the west, and Legacy Christian Academy, approximately 35 feet to the west.

Vibration-sensitive receptors are similar to noise-sensitive receptors and include residences and institutional uses, such as schools, churches, and hospitals. However, vibration-sensitive receptors also include buildings where vibrations may interfere with vibration-sensitive equipment, which can affected by levels that may be well below those associated with human annoyance. The closest vibration-sensitive receptors are the same as the closest noise-sensitive receptors described above.

Project Noise Setting

The most common source of noise in the project site vicinity is vehicular traffic along Newhall Ranch Road, Decoro Drive, and Copper Hill Drive. To characterize ambient sound levels at and near the project site, two long term (24-hour) sound level measurements were conducted from July 10 to 11, 2025. The sound meter was calibrated prior to measurements. As shown in Figure 7, noise measurement LT-1 was taken to the east of residences on Arrowhead Court, to measure ambient noise levels near the nearest residences to the west where nighttime construction may occur, and noise measurement LT-2 was taken to the west of residences on Cedar Place, to measure ambient noise levels near the nearest residences to the east where nighttime construction may occur. Nighttime construction activity may also occur at the southern portion of the site; it is assumed ambient sound levels in this area would be similar to those identified in LT-1. No noise measurements were taken at the northern portion of the site where daytime access road construction would occur. Table 12 and Table 13 summarizes the results of the noise measurements. Detailed sound level measurement data are included in Appendix E.

Figure 7 Approximate Noise Measurement Locations



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24-16744 EPS
Fig X Noise Measurement Locations

Table 12 LT-1 Long-Term (24-Hour) Ambient Noise Measurement Results

Sample Time	dBA L_{eq}	Sample Time	dBA L_{eq}
24-hour Measurement – July 10 to 11, 2025			
10:00 AM	46	10:00 PM	48
11:00 AM	40	11:00 PM	46
12:00 PM	42	12:00 AM	44
1:00 PM	46	1:00 AM	42
2:00 PM	44	2:00 AM	42
3:00 PM	44	3:00 AM	43
4:00 PM	44	4:00 AM	40
5:00 PM	44	5:00 AM	44
6:00 PM	41	6:00 AM	45
7:00 PM	45	7:00 AM	45
8:00 PM	50	8:00 AM	46
9:00 PM	49	9:00 AM	43
24-hour Noise Level (dBA CNEL)			**52**

dBA = A-weighted decibels; L_{eq} = equivalent noise level; CNEL = community equivalent noise level

See Figure 7 for approximate noise measurement locations; see Attachment B for full measurement data.

Table 13 LT-2 Long-Term (24-Hour) Ambient Noise Measurement Results

Sample Time	dBA L_{eq}	Sample Time	dBA L_{eq}
24-hour Measurement – July 10 to 11, 2025			
10:00 AM	55	10:00 PM	55
11:00 AM	57	11:00 PM	54
12:00 PM	57	12:00 AM	54
1:00 PM	61	1:00 AM	51
2:00 PM	61	2:00 AM	51
3:00 PM	58	3:00 AM	51
4:00 PM	57	4:00 AM	54
5:00 PM	56	5:00 AM	56
6:00 PM	57	6:00 AM	57
7:00 PM	58	7:00 AM	57
8:00 PM	57	8:00 AM	56
9:00 PM	56	9:00 AM	56
24-hour Noise Level (dBA CNEL)			**62**

dBA = A-weighted decibels; L_{eq} = equivalent noise level; CNEL = community equivalent noise level

See Figure 7 for approximate noise measurement locations; see Attachment B for full measurement data.

Regulatory Setting

Chapter 11.44 of the Santa Clarita Municipal Code contains the City's noise regulations. Section 11.40.040 sets operational noise levels at residential, commercial, and manufacturing uses, which are shown in Table 14.

Table 14 City of Santa Clarita Noise Limits

Land Use[1]	Time	Noise Limit (dB)[2]
Residential Zone	7:00 a.m. to 9:00 p.m. (Day)	65
Residential Zone	9:00 p.m. to 7:00 a.m. (Night)	55
Commercial/manufacturing	7:00 a.m. to 9:00 p.m. (Day)	80
Commercial/manufacturing	9:00 p.m. to 7:00 a.m. (Night)	70

[1] At the boundary line between a residential property and a commercial and manufacturing property, the noise level of the quieter zone shall be used.

[2] Corrections to Noise Limits. The numerical limits above shall be adjusted by the following corrections, where the following noise conditions exist:

- Repetitive impulsive noise: Correction of -5 dB
- Steady whine, screech or hum: Correction of -5 dB
- The following corrections apply to daytime hours only:
  - Noise occurring more than 5 but less than 15 minutes per hour: Correction of +5 dB
  - Noise occurring more than 1 but less than 5 minutes per hour: Correction of +10 dB
  - Noise occurring less than 1 minute per hour: Correction of +20 dB

Source: Santa Clarita Municipal Code Section 11.40.040

Santa Clarita Municipal Code Section 11.44.070 states, "any noise level from the use or operation of any machinery, equipment, pump, fan, air conditioning apparatus, refrigerating equipment, motor vehicle, or other mechanical or electrical device, or in repairing or rebuilding any motor vehicle, which exceeds the noise limits as set forth in Section 11.44.040 at any property line, or, if a condominium or rental units, within any condominium or rental unit within the complex, shall be a violation of this chapter."

Section 11.44.080 states that no person shall engage in any construction work which requires a building permit from the City on sites within 300 feet of a residentially-zoned property, except between the hours of 7:00 a.m. to 7:00 p.m., Monday through Friday, and 8:00 a.m. to 6:00 p.m. on Saturday. Furthermore, no work shall be performed on the following public holidays: New Year's Day, Independence Day, Thanksgiving, Christmas, Memorial Day and Labor Day. According to previous noise reports conducted in the City, City staff have indicated that construction work performed in conformance with Santa Clarita Municipal Code Section 11.44.080 is exempt from Santa Clarita Municipal Code Section 11.44.070 (Impact Sciences, Inc. 2010).

Significance Thresholds

Construction Noise

Daytime construction activity between the hours of 7:00 a.m. to 7:00 p.m., Monday through Friday, and 8:00 a.m. to 6:00 p.m. on Saturday, is exempt from compliance with Santa Clarita Municipal Code Section 11.44.070 if it occurs in conformance with Santa Clarita Municipal Code Section 11.44.080.

Nighttime construction activities between 8:30 p.m. and 4:30 a.m. may be required for pipeline improvements and would therefore be subject to the noise level limits contained in Santa Clarita Municipal Code Section 11.44.070. As a result, the nighttime noise level limit of 55 dBA L_{eq} for residential uses is utilized to evaluate the significance of nighttime construction noise impacts associated with pipeline installation (see Table 14).

Operational Noise

The noise level limits contained in Santa Clarita Municipal Code Section 11.40.040 (see Table 14) were utilized to evaluate the project's operational noise impacts.

Vibration

Vibration limits used in this analysis to determine a potential impact to local land uses from construction activities, such as vibratory compaction or excavation, are based on information contained in the FTA *Transit Noise and Vibration Impact Assessment Manual* (FTA 2018). Groundborne vibration levels that could induce potential architectural damage to buildings are identified in Table 15. Based on FTA recommendations, limiting vibration levels to below 0.2 in/sec PPV at non-engineered timber and masonry buildings (which would apply to the nearby buildings) would prevent architectural damage.

Table 15 Groundborne Vibration Architectural Damage Criteria

Building Category	PPV (in/sec)
I. Reinforced concrete, steel, or timber (no plaster)	0.5
II. Engineered concrete and masonry (no plaster)	0.3
III. Nonengineered timber and masonry buildings	0.2
IV. Buildings extremely susceptible to vibration damage	0.12

PPV = peak particle velocity; in/sec = inches per second
Source: FTA 2018

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 Equipment

Construction noise was estimated using the FHWA Roadway Construction Noise Model (RCNM). RCNM predicts construction noise levels for a variety of construction operations based on empirical data and the application of acoustical propagation formulas. Using RCNM, construction noise levels were estimated at noise-sensitive receptors near the project site. RCNM provides reference noise levels for standard construction equipment, with an attenuation rate of 6 dBA per doubling of distance for stationary equipment.

Variation in power imposes additional complexity in characterizing the noise source level from construction equipment. Power variation is accounted for by describing the noise at a reference distance from the equipment operating at full power and adjusting it based on the duty cycle of the activity to determine the L_{eq} of the operation (FHWA 2006). Each phase of construction has a specific equipment mix, depending on the work to be accomplished during that phase. Each phase

also has its own noise characteristics; some will have higher continuous noise levels than others, and some have high-impact noise levels.

Construction activity would result in temporary noise in the project site vicinity, exposing nearby receptors to increased noise levels. Construction noise would typically be higher during the more intensive phases of construction (i.e., building construction and infrastructure installation) and would be lower during the less intensive construction phases (i.e., site preparation, grading and excavation, and paving and site restoration). Typical heavy construction equipment during building construction and infrastructure installation could include a crane, backhoe and compactor. It is assumed diesel engines would power all construction equipment. Construction equipment would not all operate at the same time or location. In addition, construction equipment would not be in constant use during the 8-hour operating day.

Project construction would occur for approximately 30 months, and the nearest sensitive receptors to construction on the pipeline would be residences along Dickason Drive, approximately 80 feet west of the project site and Legacy Christian Academy, approximately 35 feet to the west of the project site. Additionally, the nearest sensitive receptors to construction on the access road would be residences along North Pietro Drive, approximately 70 feet west of the project site. Over the course of a typical construction day, construction equipment would be located as close as 55 feet to these properties during the 30-month construction period for the proposed pipeline and access road for Well W9 and Well W10, but would typically be located at an average distance farther away (a minimum of 70 feet) for the remainder of the construction period due to the nature of construction and the size of the project site.

Daytime Construction Work

A potential construction scenario includes a crane, backhoe and compactor working during building construction and infrastructure installation. All equipment was assumed to operate along the center of the project site to account for the average location of equipment for the pipeline and access road work area. As shown in Table 16, at a distance of 70 feet to the nearest sensitive residential receptor, building construction and infrastructure installation and pipeline installation would generate a noise level of 80 dBA L_{eq} for an 8-hour period, and at a distance of 35 feet to the Legacy Christian Academy, the noise level would be up to 86 dBA L_{eq} for an 8-hour period. Daytime construction would occur between the hours of 7:00 a.m. to 4:00 p.m., Monday through Friday, which is the timeframe during which construction is exempt from compliance with the City of Santa Clarita's noise standards. Therefore, daytime construction would not generate a substantial temporary 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, and impacts would be less than significant.

Table 16 Estimated Noise Levels by Construction Phase at Sensitive Receptors

Construction Activity Phase	dBA Leq (8-hour)			
	RCNM Reference Noise Level (50 feet)	Multi-Family Residence on N. Pietro Drive to the West (70 feet)[1]	Multi-Family Residence on Dickason Drive to the West (80 feet)[2]	Legacy Christian Academy to the West (35 feet)[3]
Site Preparation	74	71	70	77
Grading and Excavation	78	75	74	81
Building Construction and Infrastructure Installation	83	80	79	86
Pipeline Installation	83	80	79	86
Paving and Site Restoration	82	79	78	85

L_{eq} = average noise level equivalent; dBA = A-weighted decibel

Notes: Calculations performed with the FHWA's RCNM software are included in Appendix E.

Noise levels rounded to the nearest whole number.

[1] Distance from the center of access road construction activity to nearest residence.

[2] Distance from center of pipeline construction activity to nearest residence.

[3] Distance from center of construction activity to nearest classroom façade.

Source: FTA 2018

Nighttime Construction Work

Nighttime construction may occur for a period of approximately twelve weeks during installation of the proposed pipeline along the southern portion of the project alignment, which would result in a temporary increase in noise at nearby residences where people may be sleeping (Legacy Christian Academy and Valencia High School are not considered a noise-sensitive receptor for nighttime construction work because they would not typically be occupied during these hours). As shown in Table 16, at a distance of 80 feet (i.e., the distance to the nearest residence to pipeline construction activity), pipeline installation would generate a noise level of 79 dBA L_{eq}, which would exceed the City's nighttime exterior noise limit of 55 dBA L_{eq}. Although this impact would be temporary and short-term in duration (i.e., approximately twelve weeks), nighttime construction is conservatively considered to have the potential to generate a substantial temporary 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, and impacts would be potentially significant. Implementation of Mitigation Measure NOI-1 is required.

Construction Traffic

According to the CalEEMod assumptions for the project, project construction would involve up to 15 trips per day during paving and site restoration. According to the City's General Plan, the segment of Copper Hill Drive to the north of the project site has a traffic volume of approximately 18,000 average daily trips according to Replica's modeled data about activity in the built environment (Replica 2024). As such, project construction traffic would result in a less than 0.01 percent increase in existing roadway traffic. Generally, a doubling of traffic would result in a 3 dBA increase, which is the magnitude of noise level increase that is perceptible to humans and would be considered a significant noise increase. The negligible increase in traffic volumes during project construction would not have the potential to double existing traffic volumes on Copper Hill Drive. Therefore, construction traffic would not generate a substantial temporary 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, and impacts would be less than significant.

Operational Noise

On-Site Pump Noise

On-site noise sources associated with the proposed project would include mechanical equipment, specifically the pump station and surrounding mechanical components. To analyze noise impacts from the pump station and accompanying mechanical components, a reference noise level measured for a 100-horsepower (HP) pump at a water treatment plant was used. This 100-HP pump had a sound power level of 93.2 dBA L_{eq} which is equivalent to a sound pressure level (SPL) of 85.2 dBA L_{eq} at a distance of three feet. The proposed project would include one 250-HP pump at Well W9 and one 300-HP pump at Well W10. Therefore, the reference level for one 100-HP pump was adjusted to account for the larger pumps by assuming each 100 HP equates to a noise level of 85.2 dBA L_{eq} at a distance of three feet. Therefore, for purposes of this analysis, pump noise levels were estimated to be 89.2 dBA L_{eq} for the 250-HP pump and 90.0 dBA L_{eq} for the 300-HP pump[4] at a distance of three feet. To provide a conservative estimate of impacts, this analysis assumes the pump would be operational 24 hours per day, 365 days per year.

For Well W9, with a distance of approximately 520 feet between the pump to the nearest sensitive receptor property line to the northwest (i.e., multi-family residence), the pump would generate a noise level of 44 dBA L_{eq} at the receptor. In addition, for Well W10, with a distance of approximately 740 feet between the pump to the nearest sensitive receptor property line to the east (i.e., multi-family residence), the pump would generate a noise level of 42 dBA L_{eq} at the receptor. Combined with the ambient noise level, this would result in a noise level of approximately 46 dBA L_{eq} at the nearest sensitive receptor. Additionally, this is a conservative analysis as it does not account for the acoustical shielding provided by the concrete masonry unit wall between the pump and residential sensitive receptor. Therefore, noise generated by the pumps at Well W9 and Well W10 would not exceed the City's residential daytime exterior noise limit of 65 dBA L_{eq} or nighttime exterior noise limit of 55 dBA L_{eq}. Operational mechanical equipment would not generate a substantial 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, and impacts would be less than significant.

HVAC Noise

The primary on-site operational noise source from the project would be one five-ton HVAC unit at the proposed electrical room at Well W9, which may operate 24 hours a day depending on weather conditions. Specific mechanical specifications for the proposed HVAC system are not available at this stage of project design. Therefore, this analysis assumes the use of a typical five-ton Carrier 50JCV06 air conditioner that has a sound power level of 79 dBA (see Appendix E), equivalent to a sound pressure level of 71 dBA at three feet. To provide a conservative analysis, it was assumed the HVAC unit would be located on the side of building nearest to the nearest noise-sensitive receptor and would thus be approximately 580 feet from the single-family residence on Paseo del Rancho Drive. At this distance, noise generated by the project's HVAC equipment would attenuate to

[4] Noise levels for the proposed 250 HP and 300 HP pump were calculated using the formula: Reference Noise Level + $10\log_{10}$ (proposed HP / Reference HP).

approximately 25 dBA L_{eq}. Furthermore, this is a conservative analysis as it does not take into account any shielding from any mechanical equipment enclosures. As such, noise generated by the project's HVAC equipment would not exceed the City's residential daytime exterior noise limit of 65 dBA L_{eq} or nighttime exterior noise limit of 55 dBA L_{eq}. Therefore, operational mechanical equipment would not generate a substantial 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, and impacts would be less than significant.

Combined Operational Noise

The combined noise level of the pump and HVAC at the nearest residential sensitive receptor would be approximately 44 dBA L_{eq}, which would be below the City's residential daytime exterior noise limit of 65 dBA L_{eq} and nighttime exterior noise limit of 55 dBA L_{eq}. Therefore, operational mechanical equipment would not generate a substantial 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, and impacts would be less than significant.

Operational Traffic

The project would involve one daily maintenance trip to the project site, weekly chemical deliveries, and resin change-outs approximately every nine to 12 months. At most, the project would generate six daily one-way trips if daily site visits, the resin media replacement visit, and the chemical delivery visit occur on the same day. Similar to construction traffic, this level of vehicle trips would represent a negligible increase over existing traffic volumes and would result in a negligible noise increase. Therefore, operational traffic would not generate a substantial 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, and impacts would be less than significant.

Mitigation Measure

NOI-1 Nighttime Construction Noise Reduction Measures

SCV Water shall require the project contractor(s) to implement the following measures during nighttime construction activities:

- All construction equipment, stationary and mobile, shall be equipped with properly operating and maintained mufflers, air-inlet silencers where appropriate, and any other shrouds, shields, or other noise-reducing features that are supplied as standard accessories from the original equipment manufacturer and meet or exceed original factory specifications.
- Routine field inspection of mufflers to ensure proper function shall be performed by the construction manager.
- All noisy equipment shall be operated only when necessary and shall be switched off when not in use. All other equipment shall be turned off if not in use for more than five minutes. The construction manager shall be responsible for enforcing this restriction.
- Stationary noise-generating equipment such as portable power generators shall be located as far as practicable from noise-sensitive receptors.
- A non-automated "hotline" telephone number for registering nighttime construction noise complaints shall be posted at construction site and shall be provided to all residences within

500 feet of the project site along with the estimated nighttime construction schedule. The disturbance coordinator shall determine the cause of noise complaints and institute actions warranted to correct the issue. All complaints shall be logged noting the date, time, complainant's name, nature of the complaint, and any corrective action taken.

- At least two weeks prior to nighttime construction activities, but no more than one month in advance, written notification shall be provided to residents located within 500 feet of the project site identifying the type, duration, and frequency of nighttime construction activities.
- If needed, temporary noise barriers shall be installed to limit construction noise to no more than 55 dBA L_{eq} at nearby residences. Temporary noise barriers shall be constructed with solid materials (e.g., wood) with a density of at least 1.5 pounds per square foot with no gaps from the ground to the top of the barrier at a minimum height of 12 feet along the boundaries of the project site facing noise-sensitive receptors. If a sound blanket is used, barriers shall be constructed with solid material with a density of at least one pound per square foot with no gaps from the ground to the top of the barrier and be lined on the construction side with acoustical blanket, curtain or equivalent absorptive material rated sound transmission class 32 or higher.

Significance After Mitigation

As shown in Table 16, implementation of Mitigation Measure NOI-1 would require the use of several noise reduction measures during nighttime construction, including temporary noise barriers, resident notification, a noise complaint hotline, and noise attenuation measures, which would reduce construction noise to at or below the City's nighttime exterior noise limit of 55 dBA L_{eq} at the nearest residences. Therefore, implementation of Mitigation Measure NOI-1 would reduce project impacts related to nighttime construction noise to a less-than-significant level.

Table 17 Nighttime Construction Noise Levels with Implementation of Mitigation Measure

	dBA $_{Leq\ (8\text{-}hour)}$	
Construction Activity Phase	**RCNM Reference Noise Level (50 feet)**	**Multi-Family Residences on Dickason Drive to the West (80 feet)[1]**
Unmitigated		
Pipeline Installation	83	80
With Implementation of Mitigation Measure NOI-1		
Pipeline Installation	83	<55

L_{eq} = average noise level equivalent; dBA = A-weighted decibel

Notes: Calculations performed with the FHWA's RCNM software are included in Appendix E.

Noise levels rounded to the nearest whole number.

[1.] Distance from center of pipeline construction activity to nearest residence.

Source: FTA 2018

LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED

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

Construction

Construction activities have the greatest potential to generate ground-borne vibration affecting nearby receptors, especially during the paving and site restoration phases of the project site. Neither blasting nor pile driving would be required for construction of the project. The greatest vibratory source during construction in the project vicinity would be a vibratory roller, which may be used within 60 feet of the nearest off-site structure. Table 18 shows typical vibration levels for various pieces of construction equipment used in the assessment of construction vibration.

As shown therein, a vibratory roller has a reference vibration level of approximately 0.210 in/sec PPV at a distance of 25 feet (FTA 2018). A vibratory roller would result in a vibration level of 0.293 in/sec PPV at a distance of 20 feet to the nearest commercial building, and a vibration level of 0.045 in/sec PPV at a distance of 70 feet to the nearest residential building. This level of vibration would not exceed the significance threshold of 0.2 in/sec PPV for nonengineered timber and masonry buildings (residential building) or 0.3 in/sec PPV for engineered concrete and masonry (no plaster) (commercial building). Therefore, project construction would not generate excessive groundborne vibration or groundborne noise levels, and impacts would be less than significant.

Table 18 Construction Vibration Levels

	PPV (in/sec)		
Equipment	**Reference Level (25 Feet)**	**Paseo Club Building (20 Feet)**	**Nearest Residential Building on N. Pietro Drive (70 Feet)**
Vibratory Roller	0.210	0.293	0.045
Large Bulldozer	0.089	0.124	0.019
Loaded Trucks	0.076	0.106	0.016
Small Bulldozer	0.003	0.004	0.001
FTA Threshold for Building Damage	–	0.3	0.2
Threshold Exceeded?	–	**No**	**No**

PPV = peak particle velocity; in/sec = inches per second

Note: Vibration analysis worksheets are included in Appendix E.

Source: FTA 2018

Operation

The project does not include any substantial vibration sources associated with operation. Therefore, project operation would not generate excessive groundborne vibration or groundborne noise levels, and no impact would occur.

LESS THAN SIGNIFICANT IMPACT

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 project site is not located in the vicinity of an airport. The nearest airport is Whiteman Airport, located approximately 16 miles to the southeast of the project site. The project site is not within the 65 CNEL noise contour of this airport (County of Los Angeles 2011). Therefore, the project would not expose people working in the project area to excessive airport noise levels, and no impact would occur.

NO IMPACT

14 Population and Housing

	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 (e.g., by proposing new homes and businesses) or indirectly (e.g., through extension of roads or other infrastructure)?	☐	☐	☐	■
b. Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	■

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 proposed project would not result in the construction of new homes and therefore would not directly induce substantial unplanned population growth. The project involves the improvement of water infrastructure in a residential area of Santa Clarita, including the rehabilitation of groundwater wells and the construction of underground pipelines and a new groundwater treatment facility. The proposed groundwater treatment facility would enable SCV Water to restore the use of the Wells W9 and W10. The purpose of the proposed project is to reduce dependence on imported water supplies by restoring groundwater production capacity. The proposed project would not result in an increase in SCV Water's basin-wide groundwater pumping as compared to baseline conditions when the W9 and W10 wells were operational; thus, the project would not provide an additional source of water supplies to serve new population growth. Rather, the project would enable SCV Water to continue providing its existing customers with a safe, reliable water supply. As such, the proposed project would not increase water supply such that it would facilitate the development of land that previously could not be developed due to water service constraints. In addition, project operation would not require any new employees because the employees who would operate the facility would be sourced from SCV Water's existing workforce. Therefore, the project would not induce substantial unplanned population growth in the area, either directly or indirectly. No impact would occur.

NO IMPACT

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

The proposed project involves construction of a groundwater treatment facility, associated pipelines as well as rehabilitation of existing wells. The project would not include demolition of existing housing. As such, the project would not displace people or housing, and no impact would occur.

NO IMPACT

15 Public Services

		Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than - Significant Impact	No Impact
a.	Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, or the need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:				
	1 Fire protection?	☐	☐	☐	■
	2 Police protection?	☐	☐	☐	■
	3 Schools?	☐	☐	☐	■
	4 Parks?	☐	☐	☐	■
	5 Other public facilities?	☐	☐	☐	■

a.1. Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered fire protection facilities, or the need for new or physically altered fire protection facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives?

a.2. Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered police protection facilities, or the need for new or physically altered police protection facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives?

a.3. Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered schools, or the need for new or physically altered schools, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios or other performance objectives?

a.4. Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered parks, or the need for new or physically altered parks, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios or other performance objectives?

a.5. Would the project result in substantial adverse physical impacts associated with the provision of other new or physically altered public facilities, or the need for other new or physically altered public facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives?

As discussed in Section 14, *Population and Housing*, the proposed project would not directly or indirectly induce population growth that may increase demand for fire protection services, police protection services, schools, parks or other public facilities. The proposed project would not include features or facilities requiring additional or unusual fire protection resources during operation. In the event of the unexpected need for fire protection for the project, the closest fire station is Los Angeles County Fire Department Fire Station No. 156, located approximately 0.7 mile northeast of the project site. In addition, the project would include security measures that would minimize the need for additional police protection services, all elements of the proposed treatment facility at Well W9 would be enclosed within a concrete masonry unit wall with two sliding gates for vehicle access and one gate for pedestrian access.

The project would result in a temporary impact to the San Francisquito Creek Trail as it would be used for construction vehicle access during installation of the underground pipeline between Well W9 and W10. The San Francisquito Creek Trail is not part of an emergency service route; therefore, its temporary closure would not affect emergency response times. This temporary impact is discussed further in Section 16, *Recreation*. As such, the proposed project would not increase demand for fire protection, police protection, schools, parks, or other public facilities. Therefore, the project would not result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, or the need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for fire protection, police protection, schools, parks, or other public facilities. No impact would occur.

NO IMPACT

16 Recreation

	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?	☐	☐	☐	■

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?

As discussed in Section 15, Public Services, construction of the project would require the temporary closure of a portion of the San Francisquito Creek Trail during installation of the proposed underground pipeline between Wells W9 and W10. The approximately one-mile stretch of trail between Wells W9 and W10 would be closed for an estimated 12 weeks. Because the proposed pipeline would be installed along and beneath the existing trail, portions of the paved surface would need to be removed. However, the trail would be repaved upon completion of construction in accordance with the City of Santa Clarita's standard specifications. This closure would temporarily disrupt trail users, who may choose to use alternative nearby trails, such as the Central Park Trail and Iron Horse Trail, during project construction. While the temporary closure of the San Francisquito Creek Trail may lead to a slight and temporary increase in the use of available trails and recreational facilities nearby, it is unlikely to cause significant physical deterioration of those facilities during the course of construction. Therefore, construction impacts related to recreation would be less than significant.

The San Francisquito Creek Trail would be available for full use after construction, and project operation would not result in additional residents or workers that may increasingly use other nearby parks. Therefore, no operational impact would occur.

LESS-THAN-SIGNIFICANT IMPACT

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 recreational facilities and would not otherwise require the construction or expansion of recreational facilities. Therefore, no impact would occur.

NO IMPACT

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17 Transportation

	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. 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 use (e.g., farm equipment)?	☐	☐	■	☐
d. Result in inadequate emergency access?	☐	☐	☐	■

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

The closest residential streets to the project site are Decoro Drive and Dickason Drive. Although these roads may experience increased use due to construction vehicle trips, no road closures are proposed. Sidewalks are present along both streets, and Decoro Drive has bike lines running east and west. The San Francisquito Creek Trail is adjacent to the project site to the west and a portion of the trail is within the project site. As discussed in Section 16, *Recreation*, an approximately 1-mile stretch of the trail between Wells W9 and W10 would be temporarily closed during construction. Fencing would be placed along the southern edge of the project site, and signage notifying trail users of ongoing construction activities would be posted along the path.

The project may lead to temporary traffic impacts to Decoro and Dickason Drive as project construction would require vehicle trips including construction worker daily commutes, haul trucks (including for export of excavated soil materials), and other trucks associated with equipment, material, and concrete deliveries. Construction-related traffic would be short-term and would cease upon completion of construction activities. Therefore, project construction would not conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities, and impacts would be less than significant.

Operational activities of the proposed project would require one to two maintenance staff daily, resin media replacement approximately two to three times per year, and chemical deliveries approximately twice a month. At most, the project would generate six daily one-way trips if daily site visits, the resin media replacement visit, and the chemical delivery visit occur on the same day. Given the minimal number of trips generated, operational impacts related to adopted policies,

plans, or programs addressing the circulation system, including public transit, bicycle, or pedestrian facilities would be less than significant.

LESS-THAN-SIGNIFICANT IMPACT

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

CEQA Guidelines Section 15064.3(b) identifies criteria for evaluating transportation impacts. Specifically, the guidelines state VMT exceeding an applicable threshold of significance may indicate a significant impact. According to CEQA Guidelines Section 15064.3(b)(3), a lead agency may include a qualitative analysis of operational and construction traffic. A VMT calculation is typically conducted on a daily or annual basis to determine operational usage of a project. Construction of the proposed project would result in a minimal, short-term increase in local VMT as a result of construction-related worker traffic, material and equipment deliveries, and construction activities. However, VMT generated from construction-related traffic would cease once construction is completed.

The Governor's Office of Land Use and Climate Innovation (formerly the Office of Planning and Research) *Technical Advisory on Evaluating Transportation Impacts in CEQA* (2018) states, "Projects that generate or attract fewer than 110 trips per day generally may be assumed to cause a less-than-significant VMT impact." As discussed under threshold 17(a), project operation and maintenance activities would generate approximately six daily trips if daily site visits, the resin media replacement visit, and the chemical delivery visit occur on the same day. This level of daily traffic would not exceed the VMT screening level of 110 trips per day. As a result, impacts associated with VMT would be less than significant.

LESS-THAN-SIGNIFICANT IMPACT

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

The project would not include new publicly-accessible roadways or driveways; therefore, no proposed geometric design features would increase hazards to human health and safety. As noted in Section 16, *Recreation*, a portion of the San Francisquito Creek Trail will be demolished; however, it will be replaced in kind and will not introduce any new hazards to pedestrians or cyclists.

Following completion of the project, delivery trucks would travel along the San Francisquito Creek Trail to reach the project site. Although this trail is intended for pedestrian and bicycle use, SCV Water currently uses the trail for vehicle access to existing Wells W9 and W10. Project operation would require daily site visits by SCV Water staff, which would be integrated into existing staff rounds, and weekly chemical deliveries, which would be integrated into routine chemical deliveries. Resin change-outs would occur approximately every nine to 12 months. Therefore, site trips would be similar to existing trips and would not increase substantially.

Therefore, the project would not substantially increase hazards due to a geometric design feature or incompatible use during construction or operation. Impacts would be less than significant.

LESS-THAN-SIGNIFICANT IMPACT

d. Would the project result in inadequate emergency access?

The project would not impact emergency access as the project site does not interrupt any emergency access routes. The San Francisquito Creek Trail is not used by emergency responders to access areas of the city. Therefore, its closure, and the project as a whole, would not result in inadequate emergency access. No impact would occur.

NO IMPACT

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18 Tribal Cultural Resources

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

AB 52 of 2015 expanded CEQA by defining a new resource category, "tribal cultural resources." AB 52 states, "a project with an effect that may cause a substantial adverse change in the significance of a tribal cultural resource is a project that may have a significant effect on the environment" (PRC Section 21084.2). It further states the lead agency shall establish measures to avoid impacts altering the significant characteristics of a tribal cultural resource, when feasible (PRC Section 21084.3). PRC Sections 21074(a)(1)(A-B) define tribal cultural resources as "sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American tribe" and are:

1. Listed or eligible for listing in the CRHR or in a local register of historical resources as defined in PRC Section 5020.1(k), or
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 PRC Section 5024.1(c). In applying these criteria, the lead agency shall consider the significance of the resource to a California Native American tribe.

AB 52 also establishes a formal consultation process for California tribes regarding those resources. The consultation process must be completed before a CEQA document can be certified or adopted. Under AB 52, lead agencies are required to "begin consultation with a California Native American tribe that is traditionally and culturally affiliated with the geographic area of the proposed project." Native American tribes to be included in the process are those having requested notice of projects proposed in the jurisdiction of the lead agency.

On June 23, 2025, SCV Water distributed AB 52 consultation letters for the proposed project, including project information, map, and contact information, to four Native American Tribes. The Native American contacts provided with an AB 52 consultation letters include the following list of recipients:

- Fernandeño Tataviam Band of Mission Indians (FTBMI)
- Gabrieleño Band of Mission Indians – Kizh Nation
- Torres Martinez Desert Cahuilla Indians
- San Gabriel Band of Mission Indians

Under AB 52, Native American tribes have 30 days to respond and request further project information and formal consultation. Therefore, the consultation request period for all tribes closed on July 24, 2025.

SCV Water received one response letter from Miguel Luna, Chief Administrative Officer of the FTBMI, who submitted a formal request for tribal consultation and additional project information on July 17, 2025. SCV Water held a consultation meeting on July 30, 2025. The results of this meeting are summarized below. SCV Water concluded consultation on September 25, 2025.

a. *Would the project cause a substantial adverse change in the significance of a tribal cultural resource as defined in Public Resources Code Section 21074 that is listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code Section 5020.1(k)?*

b. *Would the project cause a substantial adverse change in the significance of a tribal cultural resource as defined in Public Resources Code 21074 that is a resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1?*

The NAHC SLF search was returned with positive results. One Native American Tribe, the FTBMI, requested consultation under AB 52. During the consultation meeting held on July 30, 2025, Miguel Luna of the FTBMI indicated the project site has medium to high sensitivity for tribal cultural resources due to its proximity to areas where funerary remains have been previously found. As a result, Mr. Luna provided several recommended mitigation measures which would include a worker environmental awareness training, preparation of a treatment and disposition plan, protocols for the treatment of potential tribal cultural resources in the event of inadvertent discovery, full-time Native American monitoring during the first week of ground-disturbing activities, spot-checking during the following weeks of construction, and potentially additional measures as needed.

On September 23, 2025, SCV Water provided Mr. Luna and the FTBMI with a list of consolidated mitigation measures for their review and approval. Ms. Sarah Brunzell, the Cultural Resources Management Manager for the FTBMI, responded to the mitigation measures and requested one text edit. SCV Water slightly refined this text edit and requested to conclude consultation with the FTBMI. Ms. Brunzell accepted the text edit, accepted the mitigation measures, and agreed

consultation was concluded on September 25, 2025. These measures are herein included as Mitigation Measures CR-1 through CR-4, TCR-1, and TCR-2. Although no known tribal cultural resources are located in the maximum project boundary, implementation of Mitigation Measures CR-1 through CR-4, TCR-1, and TCR-2 would reduce potential impacts associated with inadvertent discovery of unknown resources to a less than significant level.

Furthermore, as indicated in Section 5, *Cultural Resources*, SCV Water would be required to comply with existing regulations outlined in California Health and Safety Code Section 7050.5 should human remains be inadvertently discovered during construction. Implementation of Mitigation Measures CR-1 through CR-4, TCR-1, and TCR-2 along with regulatory compliance with California Health and Safety Code Section 7050.5 would be required to reduce impacts to tribal cultural resources to a less-than-significant level.

Mitigation Measures

Refer to Section 5, Cultural Resources, for Mitigation Measures CR-1 through CR-4.

TCR-1 Disposition and Treatment of Inadvertent Discoveries

SCV Water shall, in good faith, consult with the FTBMI on the disposition and treatment of any Tribal Cultural Resources encountered during ground disturbing activities.

TCR-2 Native American Monitoring

SCV Water or its Consultant or its Contractor shall retain a Tribal Monitor from a locally-affiliated tribe (e.g., Fernandeño Tataviam Band of Mission Indians [FTBMI]) to observe initial ground-disturbing activities, including but not limited to clearing, grubbing, grading, and trench excavation. If the project's scheduled activities require the Tribal Monitor(s) to leave the project for a period of time and return, SCV Water or its Consultant or its Contractor shall provide a minimum of 48 hours' notice to the Tribe in writing, prior to recommencement of the next initial ground-disturbing activity. Native American monitoring may be reduced or eliminated at the discretion of the Tribal Monitor, in coordination with SCV Water or its Consultant or its Contractor and the Qualified Archaeologist, as warranted by conditions such as encountering bedrock or sediments being excavated are fill. Tribal Monitors shall submit daily monitoring logs to SCV Water or its Consultant or its Contractor that include dates and times monitoring occurred, construction activities observed, and any cultural materials encountered.

Significance After Mitigation

Implementation of Mitigation Measures TCR-1 and TCR-2, as well as Mitigation Measures CR-1 through CR-4 (described in Section 5, *Cultural Resources*), would reduce potential impacts to tribal cultural resources to a less-than-significant level by requiring Native American monitoring of ground disturbance during construction of the proposed groundwater treatment and disinfection facility and associated Wells W9 and W10, implementation of a Worker's Environmental Awareness Program training prior to construction for all project components, and appropriate procedures for evaluation and treatment should any discoveries be made during construction for all project components.

LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED

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19 Utilities and Service Systems

	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?	☐	☐	■	☐

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?

Water

The proposed project would involve the construction of water treatment and conveyance infrastructure, the environmental effects of which are analyzed and mitigated throughout this document. Therefore, no additional environmental impacts associated with the relocation and construction of water facilities would occur.

Wastewater Treatment

The project would not require permanent on-site personnel and does not include the installation of restroom facilities. Therefore, no wastewater would be generated, and the project would not result the construction or relocation of additional new or expanded wastewater facilities. No impact would occur.

Stormwater Drainage

As discussed in Section 10, *Hydrology and Water Quality*, the project would minimally alter drainage patterns on site, primarily due to the addition of approximately 6,300 square feet of impervious surfaces associated with the groundwater treatment facility. Stormwater runoff would continue to be directed towards San Francisquito Creek, as under existing conditions. Other project components, such as replacement and improvements to the existing Wells W9 and W10 and the installation of belowground pipelines, would have little to no potential to result in additional stormwater runoff because existing drainage conditions would remain largely unchanged after the completion of construction. Therefore, the project would not require or result in the relocation or construction of new or expanded stormwater drainage facilities, the construction or relocation of which could cause significant environmental effects, and impacts would be less than significant.

Electric Power

Operation of the proposed project would require approximately 770 to 900 kWh of electricity daily, or approximately 280 to 330 MWh annually. The facility would tie-in to existing electrical lines adjacent to the project site via a new pad-mounted transformer installed on the project site, and the existing pole-mounted transformers would be removed. In addition, new underground conduits and wires would be routed to the existing Wells W9 and W10 pump sites. The environmental effects of these modifications to electric power facilities are analyzed and mitigated throughout this document. Therefore, no additional environmental impacts associated with the relocation and construction of electric power facilities would occur.

Natural Gas

The project would not involve any components requiring natural gas service and would not involve the relocation of existing natural gas facilities. Therefore, no impact related to natural gas facilities would occur.

Telecommunications

The proposed project would not require the installation of telecommunication facilities. Therefore, no impacts related to telecommunications facilities would occur.

NO IMPACT

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 involves construction of a groundwater treatment and disinfection facility and rehabilitation of Wells W9 and W10 to enable SCV Water to restore the use of Wells W9 and W10. The purpose of the proposed project is to reduce dependence on imported water supplies by restoring groundwater production capacity. The proposed project would not result in an increase in SCV Water's basin-wide groundwater pumping as compared to baseline conditions when Wells W9

and W10 were operational; thus, the project would not provide an additional source of water supplies to serve new population growth. Rather, the project would enable SCV Water to continue providing its existing customers with a safe, reliable water supply in accordance with the SCV Water Urban Water Management Plan (SCV Water 2021) and the Santa Clara River Valley East Groundwater Subbasin GSP (SCV Water 2022). Therefore, no impacts to water supply would occur.

NO IMPACT

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?

The project would not require permanent on-site personnel and does not include the installation of restroom facilities. Therefore, no wastewater would be generated, and the project would not result in a determination by the Santa Clarita Valley Sanitation District that it does not have adequate capacity to serve the project's projected demand in addition to its existing commitments. No impact would occur.

NO IMPACT

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?

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

Sunshine Canyon Landfill, located approximately 10 miles southeast of the project site, would receive solid waste generated by the proposed project. The landfill has a permitted capacity of 140.9 million cubic yards and a maximum permitted throughput of 12,100 tons per day. As of May 2024, the remaining capacity at the landfill was approximately 66.2 million cubic yards. Sunshine Canyon Landfill accepts a variety of waste, including inert, industrial, construction/demolition, green materials, and mixed municipal waste (CalRecycle 2025).

Project construction would temporarily generate solid waste, including approximately 3,500 cubic yards of excavated soil to be exported from the project site. Construction-generated solid waste would be disposed of in accordance with all applicable federal, State, and local statutes and regulations. Given the minimal level of demolition debris, Sunshine Canyon Landfill would have the capacity to accept non-hazardous solid waste generated by project construction activities. Once constructed, solid waste produced by project operation would primarily include spent resin media from the treatment vessels. The spent resin, which may be considered a hazardous waste depending on the concentration of PFAS, would be removed two to three times a year by the resin supplier who would be required to transport and dispose of the material at a licensed hazardous waste disposal facility in accordance with all applicable regulations, such as the Hazardous Materials Transportation Act, California Hazardous Material Management Act, and California Code of Regulations, Title 22. The project would not generate solid waste in excess of State or local standards, and would comply with all federal, State, and local management statutes and regulations, including those for hazardous waste in the event that spent resin is determined to be hazardous waste. Disposal of hazardous waste would occur at licensed hazardous waste disposal

facilities. The project would not impair the attainment of solid waste reduction goals. Therefore, impacts to solid waste would be less than significant.

LESS THAN SIGNIFICANT IMPACT

20 Wildfire

	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?	☐	■	☐	☐
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 downslopes or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?	☐	☐	☐	■

The entire coastal southern California region is prone to large wildfires due to its hot, dry climate and expansive coverage of ignitable vegetation. During the autumn and winter months, strong offshore Santa Ana wind events carry dry, desert air and can fan fast-moving fires that spread rapidly from heavily-vegetated wilderness and mountainous areas into developed communities. Santa Clarita is urbanized but is surrounded by undeveloped open space. The area is prone to regular brush fires, particularly during summer heat waves, which can pose a safety risk.

While a natural ecological process in coastal chaparral and forest systems, wildfire return intervals have decreased throughout southern California, resulting in more frequent ecological disturbance, loss of biodiversity, and colonization by non-native grass species (United States Forest Service 2018). Furthermore, post-fire conditions leave exposed mountain slopes and hillsides vulnerable to surface erosion and runoff. Debris flows during post-fire rainy seasons can pose a risk to life and property and occur with little warning. In southern California, as little as 0.3 inch of rain in 30 minutes can produce debris flows on post-fire landscapes (USGS 2018).

The project site is not located in a State Responsibility Area or designated as a Very High Fire Hazard Severity Zone (VHFHSZ) (California Department of Forestry and Fire Protection [CAL FIRE] 2025). The nearest VHFHSZ is located approximately 100 feet west of the project site within developed land along Dickason Drive, north of Decoro Drive. The project site is located within a moderate-high fire hazard severity zone, in the local responsibility area. It is adjacent to brush-covered open space vegetation including highly combustible native plant communities which could pose a fire risk.

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 City's Local Hazard Mitigation Plan (2021) sets forth hazard mitigation strategies related to a variety of threats, including wildfire. Strategies towards mitigating wildfire include working with the Los Angeles County Fire Department to enhance emergency service and increase the efficiency of response times, enhance outreach and education programs on wildfires, encourage and increase communication among wildland/urban interface property owners, and enhance the City's Urban Forestry ability to manage wildfire events. The proposed project does not include components that would interfere with implementation of the City's Local Hazard Mitigation Plan.

Construction of the project would not require road closures. The project does not include changes to the existing street system that could result in inadequate emergency access, and project operation and maintenance would not introduce new activities or substantial operational traffic with the potential to interfere with emergency response and evacuations. Therefore, no construction or operational impacts related to emergency response plans and emergency evacuation plans would occur.

NO IMPACT

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

As discussed in Section 9, *Hazards and Hazardous Materials,* project operation would involve activities with potential wildfire ignition risk. Project construction in proximity to vegetated areas would have the potential to result in wildfire ignition, and the project site consists of previously developed/disturbed areas and native vegetation communities which are characterized by high combustibility. Potential ignition sources may include sparks from exhaust pipes, discarded cigarette butts, contact of mufflers with dry grass, other sources of sparks or flame, and spills or releases of flammable materials such as gasoline. Fires potentially caused by project activities could expose people in the surrounding areas to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire. PRC Section 4442 mandates the use of spark arrestors, which prevent the emission of flammable debris from exhaust on earth-moving and portable construction equipment with internal combustion engines that are operating on any forest-covered, brush-covered, or grass-covered land. PRC Section 4428 requires construction contractors to maintain fire suppression equipment during the highest fire danger period (April 1 to December 1) when operating on or near any forest-covered, brush-covered, or grass-covered land. These regulations would minimize the risk of fire resulting from project construction activities. Nevertheless, the project may exacerbate wildfire risks during construction, and impacts would be potentially significant. Implementation of Mitigation Measure HAZ-2 (outlined in Section 9, *Hazards and Hazardous Materials*), which includes

a suite of fire prevention measures for construction activities, would be required to reduce impacts to a less-than-significant level.

LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED

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?

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 downslopes or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?

The proposed project consists of the construction of a groundwater treatment facility and pipelines well as improvements to and decommissioning of existing groundwater wells. As discussed in Section 19, *Utilities and Service Systems,* the project would not result in the relocation or construction of new or expanded utility infrastructure beyond those facilities included in the proposed project. The project would not include roads, fuel breaks, emergency water sources, or above-ground power lines that would exacerbate fire risk or result in temporary or ongoing impacts to the environment. Furthermore, the proposed project does not include habitable structures and would not substantially change the topography of the project site. Therefore, the project would not expose people to significant risks as a result of runoff, post-fire slope instability, or drainage changes, and no impacts would occur.

NO IMPACT

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21 Mandatory Findings of Significance

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than - Significant Impact	No Impact
Does the project:				
a. 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. Have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?	☐	■	☐	☐
c. Have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	☐	■	☐	☐

a. 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 Section 4, *Biological Resources*, the proposed project would not substantially reduce the habitat of fish and wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, eliminate a plant or animal community, or substantially reduce the number or restrict the range of a rare or endangered plant or animal. In addition, as discussed in Section 5, *Cultural Resources*, the project would not eliminate important examples of the major periods of California history or prehistory because none are known to be present in the project area. No impact would occur.

NO IMPACT

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)?

Cumulative impacts are defined as two or more individual (and potentially less than significant) project effects which, when considered together or in concert with other projects, combine to result in a significant impact within an identified geographic area. Cumulatively considerable impacts could occur if the construction of other projects occurs at the same time as the proposed project and in the same vicinity, such that the effects of similar impacts of multiple projects combine to expose adjacent sensitive receptors to greater levels of impact than would occur under the proposed project. For example, if the construction of other projects in the area occurs at the same time as construction of the proposed project, potential impacts associated with noise and traffic in the project area may be more substantial. Major cumulative development in the vicinity of the project site includes the following (City of Santa Clarita 2024):

- **Southern California Innovation Park.** This project involves approximately 600,000 square feet of industrial space. Recently approved developments include a childcare facility, a 137,000 square foot office building, a 48,000 square foot office building, a 55,000 square foot office building and a 21,280 square foot office building. Construction of these recently approved developments have not yet begun.
- **River Village Area D.** This project involves the construction of 184 multi-family units on 32 acres. This project is currently under construction.

Project impacts are primarily temporary, localized effects that would occur during construction activities. As discussed throughout this IS-MND, the project would result in no impacts to agriculture and forestry resources, energy, mineral resources, population and housing, and public services; therefore, the project would not contribute to cumulative impacts to these resources. The potential for the project to contribute to cumulative impacts would be limited to the infrequent periods of project activities and the following specific issue areas, for which the project is anticipated to have less than significant impacts (with or without mitigation):

- **Aesthetics:** Cumulative development in the region could continue to change the existing visual landscape. The projects listed above, in addition to other planned development in Santa Clarita, would introduce multi-story residential and commercial uses to previously undeveloped areas located on hillsides and/or within the viewshed of San Francisquito Creek. While cumulative development would be subject to existing regulations governing scenic character, including the City's General Plan, development could impact scenic vistas and visual character in Santa Clarita, resulting in a potentially significant cumulative impact to aesthetics. However, the proposed project would result in a minor, localized change to public views of scenic vistas and would not conflict with applicable zoning and other regulations governing scenic quality. Therefore, the proposed project would not result in a cumulatively considerable contribution to this impact, whether it is significant or otherwise.

- **Air Quality:** Because the SCAB is designated as nonattainment for the ozone and $PM_{2.5}$ NAAQS and CAAQS and nonattainment for the PM_{10} CAAQS, significant cumulative air quality impacts currently exist for these pollutants. As discussed in Section 3, *Air Quality,* the proposed project would not generate emissions of these air pollutants that exceed the SCAQMD significance thresholds, which are intended to assess whether a project's contribution to existing cumulative air quality impacts is considerable. Therefore, the project's contribution to significant cumulative air quality impacts would not be cumulatively considerable.
- **Biological Resources:** Cumulative development in the region would continue to disturb areas with the potential to contain or provide habitat for regulated biological resources. Cumulative development projects have undergone or would be required to undergo CEQA review, which would determine the extent of potential biological resources impacts and mitigate those impacts appropriately. If these cumulative projects would result in significant impacts to biological resources, impacts to such resources would be addressed on a case-by-case basis. Given the uncertainty in the extent of impacts associated with these projects, consistent with the finding in the City of Santa Clarita General Plan EIR (City of Santa Clarita 2011) this analysis conservatively assumes a significant cumulative impact to biological resources would occur. Nevertheless, as discussed in Section 4, *Biological Resources*, project impacts to biological resources would be localized and primarily limited to the temporary construction period with minimal permanent impacts to suitable habitat for special-status species and state- and federally-protected waters, including riparian habitat. In addition, the proposed project would be required to implement Mitigation Measures BIO-1 through BIO-8 to reduce its temporary and permanent impacts to biological resources to a less-than-significant level such that project-level impacts would not result in a cumulatively considerable contribution to this cumulative impact.
- **Cultural and Tribal Cultural Resources:** Cumulative development in the region would continue to disturb areas with the potential to contain cultural and tribal cultural resources. As mentioned above, cumulative development projects have undergone or would be required to undergo CEQA review, which would determine the extent of potential cultural and tribal resources impacts and mitigate those impacts appropriately. If cumulative projects would result in impacts to known or unknown cultural and tribal cultural resources, impacts to such resources would be addressed on a case-by-case basis. Given the uncertainty in the extent of impacts associated with these projects, this analysis conservatively assumes a significant cumulative impact to cultural and tribal cultural resources would occur. Nevertheless, no cultural or tribal cultural resources are known to be present within the project site, and the proposed project would be required to implement Mitigation Measures CR-1 through CR-4, TCR-1, and TCR-2 to reduce its impacts to unanticipated discoveries of cultural resources and archaeological resources of Native American origin to a less-than-significant level such that project-level impacts would not result in a cumulatively considerable contribution to these cumulative impacts.
- **Geology and Soils:** Impacts related to geology and soils are generally localized and site-specific based on soil characteristics and seismic hazards. However, cumulative development in the region would continue to encounter areas with the potential to contain paleontological resources. This analysis conservatively assumes a significant cumulative impact to paleontological resources would occur. As discussed in Section 7, *Geology and Soils*, sediments within the project site that would be impacted by the proposed project may contain paleontological resources, and Mitigation Measure GEO-1 is required. Therefore, the project would not result in a cumulatively considerable contribution to cumulative impacts to paleontological resources.

- **Greenhouse Gas Emissions:** GHG emissions and climate change are, by definition, cumulative impacts. As discussed in Section 8, *Greenhouse Gas Emissions*, the adverse environmental impacts of cumulative GHG emissions, including increased average temperatures, more drought years, and more frequent large wildfires, are already occurring. As a result, cumulative impacts related to GHG emissions are significant. Thus, the issue of climate change involves an analysis of whether a project's contribution towards an impact is cumulatively considerable. As discussed in Section 8, *Greenhouse Gas Emissions*, project-level GHG emissions impacts would be less than significant and would therefore not be cumulatively considerable.
- **Hazards and Hazardous Materials:** Similar to the proposed project, cumulative projects would be required to comply with regulations applicable to the use, disposal, and transportation of hazardous materials during construction activities, and compliance with applicable regulations would reduce potential cumulative impacts to less-than-significant levels. With respect to the use and accidental release of hazardous materials in the environment during construction, effects are generally limited to site-specific conditions. Therefore, cumulative impacts related to accidental release of hazardous materials would not be significant.
- **Hydrology and Water Quality:** Cumulative projects in the region, including the proposed project, would be required to comply with existing National Pollutant Discharge Elimination System regulations to ensure they do not result in substantial erosion, surface runoff, or stormwater discharges that would substantially affect water quality in the area. Implementation of these regulations minimizes and avoids the potential for cumulative hydrology and water quality impacts to occur. Therefore, cumulative impacts related to hydrology and water quality would not be significant.
- **Land Use and Planning.** Cumulative development would be subject to existing land use and planning regulations adopted for the purpose of avoiding and mitigating environmental effects, including the City's General Plan and Santa Clarita Municipal Code and would be required to address and minimize any conflicts on a case-by-case basis. Therefore, cumulative impacts related to land use and planning would be less than significant.
- **Noise:** Cumulative development projects may occur at the same time as the proposed project. However, cumulative projects are not located adjacent to the project site, and it is unlikely that development of the proposed project and cumulative projects would result in an increase in noise, should construction schedules overlap. In addition, potentially significant project noise impacts are limited to nighttime construction activities, and based on the nature of cumulative development projects, it is unlikely they would require nighttime construction. Therefore, cumulative noise impacts would not be significant.
- **Recreation.** No cumulative projects are proposed within one mile of the project site that would also result in impacts to the San Francisquito Creek Trail. Therefore, cumulative impacts related to recreation would not be significant.
- **Transportation:** The cumulative development projects listed above may occur at the same time as the proposed project. Cumulative development would introduce new residential and commercial uses to previously undeveloped areas, and would result in an increase in VMT. While a significant cumulative increase in VMT may occur, the project would result in a minimal increase in trips during construction and operation. Therefore, the project would not result in a cumulatively considerable contribution to significant cumulative impacts to transportation.
- **Utilities and Service Systems:** Cumulative development in Santa Clarita would generally result in increased demands for utilities and service systems. If cumulative projects would result in impacts to utilities and service systems, impacts to such services would be addressed on a case-

by-case basis. Per the General Plan EIR (CITE HERE), cumulative impacts would be less than significant following implementation of a mitigation measure requiring all development proposals be reviewed to determine if sufficient utilities/infrastructure exists. The project itself consists of water conveyance infrastructure and would therefore not result in a cumulatively considerable contribution to adverse impacts on water supply. The project would not generate a net increase in wastewater and would temporarily generate minimal solid waste during construction. Therefore, the project's contribution to cumulative impacts, significant or otherwise, related to solid waste or wastewater would not be considerable.

- **Wildfire:** The cumulative projects listed above would introduce new development to previously undeveloped areas and hillsides; accordingly, cumulative impacts related to wildfire may be significant. As described in Section 20, *Wildfire*, potential wildfire impacts associated with the proposed project would be limited to construction equipment possibly producing sparks to ignite vegetation, which would be less than significant with compliance with applicable laws and implementation of Mitigation Measure HAZ-2. Project operation would not involve potentially flammable activities. In addition, the proposed project would not introduce habitable structures, and therefore, would not expose new residents to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire. As a result, the project would not result in a cumulatively considerable contribution to potentially significant cumulative wildfire impacts.

Given the above discussion, the proposed project would not result in a cumulatively considerable contribution to a significant cumulative impact with mitigation incorporated.

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

Impacts to human beings are generally associated with air quality, hazards and hazardous materials, noise, and wildfire. As detailed in Section 3, *Air Quality*, the project would not result, either directly or indirectly, in substantial adverse effects related to air quality. As discussed in Section 9, *Hazards and Hazardous Materials*, implementation of Mitigation Measures HAZ-1 and HAZ-2, as well as compliance with applicable rules and regulations would reduce potential impacts on human beings related to hazards and hazardous materials to a less-than-significant level. As discussed in Section 13, *Noise*, implementation of Mitigation Measure NOI-1 would reduce potential impacts on human beings related to nighttime construction noise to a less-than-significant level. As discussed in Section 9, *Hazards and Hazardous Materials,* and Section 20, *Wildfire,* compliance with PRC Section 4428 and implementation of Mitigation Measure HAZ-2 would reduce impacts related to wildfire to less-than-significant levels. Therefore, impacts to human beings would be less than significant with mitigation incorporated.

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References

Bibliography

Bedrossian, T.L. and P.D. Roffers. 2012. Geologic compilation of Quaternary surficial deposits in southern California: Los Angeles 30' x 60' quadrangle. [map.] California Geological Survey. CGS Special Report 217, Plate 9, scale 1:100,000.

California Air Resources Board (CARB). 2005. Air Quality and Land Use Handbook: A Community Health Perspective. April 2005. https://files.ceqanet.lci.ca.gov/221458-6/attachment/UNr-g159CW-r0G4DR8q6daNdAKT3RJTd8gGQCfz4wqFfl-eNdZNQEqjf8tfls1x6Gsae7YqpXwtFIZBd0 (accessed July 2025).

_____. 2022. 2022 Scoping Plan for Achieving Carbon Neutrality. November 16, 2022. https://ww2.arb.ca.gov/sites/default/files/2022-12/2022-sp.pdf (accessed July 2025).

_____. 2023. Map of State and Federal Area Designation. Last modified: November 2023. https://ww2.arb.ca.gov/resources/documents/maps-state-and-federal-area-designations (accessed July 2025).

California Department of Conservation. 2025a. California Important Farmland Finder. https://maps.conservation.ca.gov/DLRP/CIFF/ (accessed July 2025).

_____. 2025b. Earthquake Zones of Required Investigation. https://maps.conservation.ca.gov/cgs/informationwarehouse/eqzapp/ (accessed July 2025).

California Department of Forestry and Fire Protection (CALFIRE). 2024. Fire Hazard Severity Zones in State Responsibility Area. https://calfire-forestry.maps.arcgis.com/apps/webappviewer/index.html?id=988d431a42b242b29d89597ab693d008 (accessed July 2025).

California Department of Resources Recycling and Recovery (CalRecycle). 2025. Sunshine Canyon City/County Landfill. https://www2.calrecycle.ca.gov/SolidWaste/SiteActivity/Details/259?siteID=4702 (accessed July 2025).

California Department of Toxic Substances Control. 2025. EnviroStor database. https://www.envirostor.dtsc.ca.gov/public/map/?global_id=60002757 (accessed July 2025).

California Department of Transportation (Caltrans). 2013. Technical Noise Supplement to the Traffic Noise Analysis Protocol. (CT-HWANP-RT-13-069.25.2) September. https://dot.ca.gov/-/media/dot-media/programs/environmental-analysis/documents/env/tens-sep2013-a11y.pdf (accessed July 2025).

_____. 2018. California State Scenic Highway System Map. https://caltrans.maps.arcgis.com/apps/webappviewer/index.html?id=465dfd3d807c46cc8e8057116f1aacaa (accessed July 2025).

_____. 2020. Transportation and Construction Vibration Guidance Manual. (CT-HWANP-RT-20-365.01.01) April 2020. https://dot.ca.gov/-/media/dot-media/programs/environmental-analysis/documents/env/tcvgm-apr2020-a11y.pdf (accessed July 2025).

California Energy Commission (CEC). 2022. Supply and Demand of Natural Gas in California. https://www.energy.ca.gov/data-reports/energy-almanac/californias-natural-gas-market/supply-and-demand-natural-gas-california (accessed July 2025).

_____. 2024. 2023 Total System Electric Generation. https://www.energy.ca.gov/data-reports/energy-almanac/california-electricity-data/2023-total-system-electric-generation (accessed July 2025).

_____. 2025a. Transforming Transportation. https://www.energy.ca.gov/about/core-responsibility-fact-sheets/transforming-transportation (accessed July 2025).

_____. 2025b. SB 100 Joint Agency Report. https://www.energy.ca.gov/sb100 (accessed July 2025)

California Environmental Protection Agency. 2025. Cortese List Data Resources. https://calepa.ca.gov/sitecleanup/corteselist/ (accessed July 2025).

California Geological Survey. 2002. Note 36 – California Geomorphic Provinces. https://www.conservation.ca.gov/cgs/Documents/Publications/CGS-Notes/CGS-Note-36.pdf (accessed July 2025).

California Natural Resources Agency. 2019. California's Fourth Climate Change Assessment Statewide Summary Report. August 27, 2018. http://www.climateassessment.ca.gov/state/ (accessed July 2025).

California Office of Environmental Health Hazard Assessment (OEHHA). 2019. Guide to Health Risk Assessment. https://oehha.ca.gov/sites/default/files/media/downloads/risk-assessment/document/hrsguide2001.pdf (accessed July 2025).

Dibblee, T.W. and H.E. Ehrenspeck. 1996. Geologic map of the Newhall quadrangle, Los Angeles County, California. [map]. Dibblee Geologic Foundation, Dibblee Foundation Map DF-56, scale 1:24,000.

Federal Emergency Management Agency (FEMA). 2025. FEMA's National Flood Hazard Layer Viewer. https://hazards-fema.maps.arcgis.com/apps/webappviewer/index.html?id=8b0adb51996444d4879338b5529aa9cd&extent=-121.94529102661183,36.5159779735144,-121.90374897338809,36.53322138877889 (accessed July 2025).

Federal Highway Administration (FHWA). 2006. FHWA Highway Construction Noise Handbook. (FHWAHEP-06-015; DOT-VNTSC-FHWA-06-02). https://rosap.ntl.bts.gov/view/dot/8837/dot_8837_DS1.pdf (accessed July 2025).

Governor Gavin Newsom. 2025. In historic first, California powered by two-thirds clean energy – becoming largest economy in the world to achieve milestone. July 14, 2025. https://www.gov.ca.gov/2025/07/14/in-historic-first-california-powered-by-two-thirds-clean-energy-becoming-largest-economy-in-the-world-to-achieve-milestone/ (assessed July 2025)

Impact Sciences, Inc. 2010. Lyons Avenue At-Grade Rail Crossing: Stage 1 Draft Environmental Impact Report. March 2010. https://www.santa-clarita.com/Home/ShowDocument?id=3510 (accessed July 2025).

Intergovernmental Panel on Climate Change (IPCC). 2014. Climate Change 2014 Synthesis Report. Contribution of Working Groups I, II and III to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change [Core Writing Team, R.K. Pachauri and L.A. Meyer (eds.)]. IPCC, Geneva, Switzerland. https://www.ipcc.ch/site/assets/uploads/2018/02/SYR_AR5_FINAL_full.pdf (accessed July 2025).

Los Angeles Regional Water Quality Control Board. 2002. No Further Action - Country Cleaners, Plaza Del Rancho Shopping Center, Rental Unit No. 25, 27674 Newhall Ranch Road, Valencia, California (SLIC No. 959). https://documents.geotracker.waterboards.ca.gov/regulators/deliverable_documents/1481266617/0959%20NFA%20LETTER%20052102.pdf (accessed August 2025).

_____. 2014. Los Angeles Regional Water Quality Control Board's Basin Plan for the Coastal Watersheds of Los Angeles and Ventura Counties. https://www.waterboards.ca.gov/losangeles/water_issues/programs/basin_plan/basin_plan_documentation.html (accessed July 2025).

Los Angeles County Department of Public Works (LACDPW). 2011. Whiteman Airport Master Plan. https://pw.lacounty.gov/avi/airports/documents/Whiteman_MP.pdf (accessed July 2025).

Natural History Museum of Los Angeles County (NHMLA). 2025. Collections search of the Natural History Museum of Los Angeles County for the SCVWA W9-W10 GW Treatment Improvements Project (24-16744), dated April 20, 2025.

Norris, R.M., and R.W. Webb. 1976. Geology of California. John Wiley and Sons, Inc. New York.

Paleobiology Database. 2025. The Paleobiology Database, http://paleobiodb.org/ (accessed July 2025).

Replica. 2024. *Replica* Annual Average Daily Traffic (AADT) Data (Accessed July 2025)

Santa Clarita, City of. 2010. General Plan Final Environmental Impact Report. https://filecenter.santa-clarita.com/EIR/OVOV/Draft/3_10_MineralResources091410.pdf (accessed July 2025).

_____. 2011. General Plan Conservation and Open Space Element. L:\EPS\State or Regional\SCV Water\24-16744 SCVWA W9-W10 GW Treatment Improvements\Report\Drafts\admin record (accessed July 2025).

_____. 2022. General Plan Safety Element. https://www.codepublishing.com/CA/SantaClarita/html/SantaClaritaGP/7%20-%20Safety%20Element.pdf (accessed July 2025).

_____. 2024. Major Development Projects. https://santaclarita.gov/planning/major-development-projects/ (accessed July 2025).

Santa Clarita Valley Groundwater Sustainability Agency. 2021. SCV Water Urban Water Management Plan. https://fta.valleywater.org/dl/pggls1SeCr (accessed August 2025).

_____. 2022. Santa Clara River Valley East Groundwater Subbasin Groundwater Sustainability Plan. https://scvgsa.org/wp-content/uploads/2021/12/SCV-GSP-Section-Redlines-from-Public-Draft-20211217.pdf (accessed July 2025).

_____. 2023. Santa Clarita Valley Water Agency Sustainability Plan. March 2023. https://yourscvwater.com/sites/default/files/SCVWA/your-water/plans-and-reports/sustainability-plan/2023-SCV-Water-Draft-Sustainability-Plan.pdf (accessed July 2025).

South Coast Air Quality Management District (SCAQMD). 1993. CEQA Air Quality Handbook.

_____. 2009. Appendix C. Mass Rate LST Look Up Table. October 2009. http://www.aqmd.gov/docs/default-source/ceqa/handbook/localized-significance-thresholds/appendix-c-mass-rate-lst-look-up-tables.pdf?sfvrsn=2 (accessed July 2025).

_____. 2010. South Coast Air Quality Management District (SCAQMD). 2010. Minutes for the GHG CEQA Significance Threshold Stakeholder Working Group #15. http://www.aqmd.gov/docs/default-source/ceqa/handbook/greenhouse-gases-(ghg)-ceqa-significance-thresholds/year-2008-2009/ghg-meeting-15/ghg-meeting-15-minutes.pdf (accessed July 2025).

_____. 2017. Final 2016 Air Quality Management Plan. March 2017. https://www.aqmd.gov/docs/default-source/clean-air-plans/air-quality-management-plans/2016-air-quality-management-plan/final-2016-aqmp/final2016aqmp.pdf?sfvrsn=15 (accessed July 2025).

_____. 2022. 2022 Air Quality Management Plan. December 2022. http://www.aqmd.gov/docs/default-source/clean-air-plans/air-quality-management-plans/2022-air-quality-management-plan/final-2022-aqmp/final-2022-aqmp.pdf?sfvrsn=16 (accessed July 2025).

_____. 2023. SCAQMD Air Quality Significance Thresholds. March 2023. https://www.aqmd.gov/docs/default-source/ceqa/handbook/south-coast-aqmd-air-quality-significance-thresholds.pdf?sfvrsn=25 (accessed July 2025).

_____. 2024. 2023 Air Quality South Coast Air Quality Management District. https://www.aqmd.gov/docs/default-source/air-quality/historical-data-by-year/2023-air-quality-data-tables.pdf?sfvrsn=6 (accessed July 2025).

Society of Vertebrate Paleontology (SVP). 2010. Standard Procedures for the Assessment and Mitigation of Adverse Impacts to Paleontological Resources. Society of Vertebrate Paleontology Impact Mitigation Guidelines Revision Committee. https://vertpaleo.org/wp-content/uploads/2021/01/SVP_Impact_Mitigation_Guidelines-1.pdf (accessed July 2025).

Southern California Association of Governments (SCAG). 2020. Final Connect SoCal Demographics and Growth Forecast. Adopted September 3, 2020. https://scag.ca.gov/read-plan-adopted-final-plan (accessed July 2025).

United States Department of Agriculture, Natural Resources Conservation Service. 2025. Web Soil Survey. https://websoilsurvey.sc.egov.usda.gov/App/WebSoilSurvey.aspx (accessed July 2025).

United States Energy Information Administration. 2025. California State Profile and Energy Estimates. June 20, 2025. https://www.eia.gov/state/?sid=CA (accessed July 2025).

United States Environmental Protection Agency (USEPA). 2024. Criteria Air Pollutants. Last Modified: July 30, 2024. https://www.epa.gov/criteria-air-pollutants (accessed July 2025).

United States Forest Service. 2018. Fire as a Threat to Biodiversity in Fire-Type Shrublands. https://www.fs.usda.gov/psw/publications/documents/psw_gtr195/psw_gtr195_2_97_Keeley.pdf (accessed July 2025).

United States Geological Survey. 2018. Post-Fire Flooding and Debris Flow. https://ca.water.usgs.gov/wildfires/wildfires-debris-flow.html (accessed July 2025).

_____. 2025a. Liquefaction, flow, and associated ground failure. https://www.usgs.gov/publications/liquefaction-flow-and-associated-ground-failure (accessed July 2025).

_____. 2025b. Landslides Glossary. https://www.usgs.gov/glossary/landslides-glossary#S (accessed July 2025).

Yerkes, R.F. and R.H. Campbell. 2005. Preliminary geologic map of the Los Angeles 30' x 60' quadrangle, southern California. United States Geological Survey. [map]. Open-File Report 2005-1019, scale 1:100,000.

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Appendix A

CalEEMod Modeling Outputs

SCV Wells Detailed Report

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8. User Changes to Default Data

1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	SCV Wells
Construction Start Date	1/1/2026
Operational Year	2027
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	2.50
Precipitation (days)	16.0
Location	34.452124024915676, -118.55794912535015
County	Los Angeles-South Coast
City	Santa Clarita
Air District	South Coast AQMD
Air Basin	South Coast
TAZ	3613
EDFZ	7
Electric Utility	Southern California Edison
Gas Utility	Southern California Gas
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
Other Non-Asphalt Surfaces	6.30	1000sqft	1.60	0.00	0.00	—	—	—

General Light Industry	1.00	1000sqft	0.00	1,000	0.00	—	—	—

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.	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	2.47	2.07	18.2	18.7	0.03	0.78	0.16	0.78	0.71	0.04	0.72	—	3,654	3,654	0.15	0.03	0.57	3,666
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	4.04	3.85	18.2	18.7	0.03	0.78	0.30	0.78	0.71	0.08	0.72	—	3,653	3,653	0.15	0.14	0.06	3,666
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	1.00	0.85	6.74	7.33	0.01	0.29	0.06	0.35	0.26	0.01	0.28	—	1,507	1,507	0.06	0.02	0.13	1,516
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.18	0.15	1.23	1.34	< 0.005	0.05	0.01	0.06	0.05	< 0.005	0.05	—	250	250	0.01	< 0.005	0.02	251

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

Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2026	2.47	2.07	18.2	18.7	0.03	0.78	0.16	0.78	0.71	0.04	0.72	—	3,654	3,654	0.15	0.03	0.57	3,666
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2026	4.04	3.85	18.2	18.7	0.03	0.78	0.30	0.78	0.71	0.08	0.72	—	3,653	3,653	0.15	0.14	0.06	3,666
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2026	1.00	0.85	6.74	7.33	0.01	0.29	0.06	0.35	0.26	0.01	0.28	—	1,507	1,507	0.06	0.02	0.13	1,516
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2026	0.18	0.15	1.23	1.34	< 0.005	0.05	0.01	0.06	0.05	< 0.005	0.05	—	250	250	0.01	< 0.005	0.02	251

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.	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.04	0.04	< 0.005	0.04	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	0.00	313	313	0.03	< 0.005	0.26	315
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.03	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	313	313	0.03	< 0.005	0.26	315
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.04	0.04	< 0.005	0.03	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.00	314	314	0.03	< 0.005	0.26	316
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.01	0.01	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.00	52.0	52.0	< 0.005	< 0.005	0.04	52.3

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	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	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	0.00
Area	0.04	0.04	< 0.005	0.04	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.18	0.18	< 0.005	< 0.005	—	0.18
Energy	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	313	313	0.03	< 0.005	—	315
Water	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Waste	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.26	0.26
Total	0.04	0.04	< 0.005	0.04	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	0.00	313	313	0.03	< 0.005	0.26	315
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	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	0.00
Area	0.03	0.03	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Energy	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	313	313	0.03	< 0.005	—	315
Water	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Waste	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.26	0.26
Total	0.03	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	313	313	0.03	< 0.005	0.26	315
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.73	0.73	< 0.005	< 0.005	< 0.005	0.77
Area	0.04	0.04	< 0.005	0.03	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.12	0.12	< 0.005	< 0.005	—	0.12
Energy	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	313	313	0.03	< 0.005	—	315
Water	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Waste	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00

Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.26	0.26
Total	0.04	0.04	< 0.005	0.03	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.00	314	314	0.03	< 0.005	0.26	316
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.12	0.12	< 0.005	< 0.005	< 0.005	0.13
Area	0.01	0.01	< 0.005	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.02	0.02	< 0.005	< 0.005	—	0.02
Energy	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	51.8	51.8	< 0.005	< 0.005	—	52.1
Water	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Waste	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.04	0.04
Total	0.01	0.01	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.00	52.0	52.0	< 0.005	< 0.005	0.04	52.3

3. Construction Emissions Details

3.1. Site Preparation (2026) - Unmitigated

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

Location	TOG	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	0.12	0.10	1.03	1.91	< 0.005	0.03	—	0.03	0.03	—	0.03	—	290	290	0.01	< 0.005	—	291
Dust From Material Movement	—	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—

Demolition	—	—	—	—	—	—	0.06	0.06	—	0.01	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.03	0.05	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	7.96	7.96	< 0.005	< 0.005	—	7.98
Dust From Material Movement	—	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Demolition	—	—	—	—	—	—	< 0.005	< 0.005	—	< 0.005	< 0.005	—	—	—	—	—	—	—
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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	1.32	1.32	< 0.005	< 0.005	—	1.32
Dust From Material Movement	—	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Demolition	—	—	—	—	—	—	< 0.005	< 0.005	—	< 0.005	< 0.005	—	—	—	—	—	—	—
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	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.14	0.00	0.00	0.03	0.03	0.00	0.01	0.01	—	32.1	32.1	< 0.005	< 0.005	< 0.005	32.5
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	0.00
Hauling	0.01	< 0.005	0.10	0.04	< 0.005	< 0.005	0.02	0.02	< 0.005	0.01	0.01	—	81.7	81.7	< 0.005	0.01	< 0.005	85.7
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.89	0.89	< 0.005	< 0.005	< 0.005	0.90
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	0.00
Hauling	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	2.24	2.24	< 0.005	< 0.005	< 0.005	2.35
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.15	0.15	< 0.005	< 0.005	< 0.005	0.15
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	0.00
Hauling	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.37	0.37	< 0.005	< 0.005	< 0.005	0.39

3.3. Grading/Excavation (2026) - Unmitigated

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

Location	TOG	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	0.16	0.13	1.28	2.12	< 0.005	0.04	—	0.04	0.04	—	0.04	—	325	325	0.01	< 0.005	—	326

Dust From Material Movement	—	—	—	—	—	—	< 0.005	< 0.005	—	< 0.005	< 0.005	—	—	—	—	—	—	—
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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.11	0.17	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	26.7	26.7	< 0.005	< 0.005	—	26.8
Dust From Material Movement	—	—	—	—	—	—	< 0.005	< 0.005	—	< 0.005	< 0.005	—	—	—	—	—	—	—
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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.02	0.03	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	4.42	4.42	< 0.005	< 0.005	—	4.44
Dust From Material Movement	—	—	—	—	—	—	< 0.005	< 0.005	—	< 0.005	< 0.005	—	—	—	—	—	—	—
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	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02	0.02	0.02	0.28	0.00	0.00	0.07	0.07	0.00	0.02	0.02	—	64.2	64.2	< 0.005	< 0.005	0.01	65.0

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	0.00
Hauling	0.06	0.01	1.06	0.40	0.01	0.01	0.23	0.24	0.01	0.06	0.07	—	844	844	0.05	0.13	0.05	885
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.02	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	5.36	5.36	< 0.005	< 0.005	0.01	5.43
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	0.00
Hauling	< 0.005	< 0.005	0.09	0.03	< 0.005	< 0.005	0.02	0.02	< 0.005	0.01	0.01	—	69.3	69.3	< 0.005	0.01	0.07	72.8
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.89	0.89	< 0.005	< 0.005	< 0.005	0.90
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	0.00
Hauling	< 0.005	< 0.005	0.02	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	11.5	11.5	< 0.005	< 0.005	0.01	12.1

3.5. Infra. Install (2026) - Unmitigated

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

Location	TOG	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	2.47	2.07	18.2	18.7	0.03	0.78	—	0.78	0.71	—	0.71	—	3,643	3,643	0.15	0.03	—	3,655
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	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	2.47	2.07	18.2	18.7	0.03	0.78	—	0.78	0.71	—	0.71	—	3,643	3,643	0.15	0.03	—	3,655

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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.68	0.57	4.99	5.11	0.01	0.21	—	0.21	0.20	—	0.20	—	998	998	0.04	0.01	—	1,001
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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.12	0.10	0.91	0.93	< 0.005	0.04	—	0.04	0.04	—	0.04	—	165	165	0.01	< 0.005	—	166
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	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.03	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	5.69	5.69	< 0.005	< 0.005	0.02	5.77
Vendor	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	5.11	5.11	< 0.005	< 0.005	0.01	5.35
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	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.02	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	5.39	5.39	< 0.005	< 0.005	< 0.005	5.46
Vendor	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	5.11	5.11	< 0.005	< 0.005	< 0.005	5.34
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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.50	1.50	< 0.005	< 0.005	< 0.005	1.52
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	1.40	1.40	< 0.005	< 0.005	< 0.005	1.46

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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.25	0.25	< 0.005	< 0.005	< 0.005	0.25
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.23	0.23	< 0.005	< 0.005	< 0.005	0.24
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	0.00

3.7. Paving/Site Restoration (2026) - Unmitigated

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

Location	TOG	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	1.11	0.93	7.72	10.3	0.01	0.37	—	0.37	0.34	—	0.34	—	1,544	1,544	0.06	0.01	—	1,549
Architectural Coatings	2.87	2.87	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Paving	0.00	0.00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.03	0.03	0.21	0.28	< 0.005	0.01	—	0.01	0.01	—	0.01	—	42.3	42.3	< 0.005	< 0.005	—	42.4

Architectural	0.08	0.08	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Paving	0.00	0.00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	< 0.005	0.04	0.05	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	7.00	7.00	< 0.005	< 0.005	—	7.03
Architectural Coatings	0.01	0.01	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Paving	0.00	0.00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
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	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.06	0.05	0.07	0.83	0.00	0.00	0.20	0.20	0.00	0.05	0.05	—	193	193	0.01	0.01	0.02	195
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	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.02	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	5.36	5.36	< 0.005	< 0.005	0.01	5.43
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	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.89	0.89	< 0.005	< 0.005	< 0.005	0.90

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	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	0.00

3.9. Pipe Install (2026) - Unmitigated

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

Location	TOG	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	1.07	0.90	7.90	9.08	0.02	0.35	—	0.35	0.33	—	0.33	—	1,944	1,944	0.08	0.02	—	1,951
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	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.07	0.90	7.90	9.08	0.02	0.35	—	0.35	0.33	—	0.33	—	1,944	1,944	0.08	0.02	—	1,951
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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.18	0.15	1.30	1.49	< 0.005	0.06	—	0.06	0.05	—	0.05	—	320	320	0.01	< 0.005	—	321
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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Roa Equipment	0.03	0.03	0.24	0.27	< 0.005	0.01	—	0.01	0.01	—	0.01	—	52.9	52.9	< 0.005	< 0.005	—	53.1
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	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.05	0.05	0.05	0.81	0.00	0.00	0.16	0.16	0.00	0.04	0.04	—	169	169	0.01	0.01	0.57	172
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	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	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.05	0.05	0.05	0.69	0.00	0.00	0.16	0.16	0.00	0.04	0.04	—	161	161	0.01	0.01	0.01	163
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	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.12	0.00	0.00	0.03	0.03	0.00	0.01	0.01	—	26.8	26.8	< 0.005	< 0.005	0.04	27.1
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	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.02	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	4.43	4.43	< 0.005	< 0.005	0.01	4.49
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	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	0.00

4. Operations Emissions Details

4.1. Mobile Emissions by Land Use

4.1.1. Unmitigated

Mobile source emissions results are presented in Sections 2.6. No further detailed breakdown of emissions is available.

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	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Other Non-Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
General Light Industry	—	—	—	—	—	—	—	—	—	—	—	—	313	313	0.03	< 0.005	—	315
Total	—	—	—	—	—	—	—	—	—	—	—	—	313	313	0.03	< 0.005	—	315
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Other Non-Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
General Light Industry	—	—	—	—	—	—	—	—	—	—	—	—	313	313	0.03	< 0.005	—	315
Total	—	—	—	—	—	—	—	—	—	—	—	—	313	313	0.03	< 0.005	—	315
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Other Non-Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00

General Light Industry	—	—	—	—	—	—	—	—	—	—	—	—	51.8	51.8	< 0.005	< 0.005	—	52.1
Total	—	—	—	—	—	—	—	—	—	—	—	—	51.8	51.8	< 0.005	< 0.005	—	52.1

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	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Other Non-Asphalt Surfaces	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
General Light Industry	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	0.00	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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Other Non-Asphalt Surfaces	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
General Light Industry	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	0.00	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	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Other Non-Asphalt Surfaces	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

General Light Industry	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	0.00	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

4.3. 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	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	0.03	0.03	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.01	0.01	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.01	0.01	< 0.005	0.04	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.18	0.18	< 0.005	< 0.005	—	0.18
Total	0.04	0.04	< 0.005	0.04	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.18	0.18	< 0.005	< 0.005	—	0.18
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	0.03	0.03	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Architectural Coatings	0.01	0.01	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	0.03	0.03	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	< 0.005	< 0.005	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	< 0.005	< 0.005	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	< 0.005	< 0.005	< 0.005	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.02	0.02	< 0.005	< 0.005	—	0.02
Total	0.01	0.01	< 0.005	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.02	0.02	< 0.005	< 0.005	—	0.02

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	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Other Non-Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
General Light Industry	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00

Total	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Other Non-Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
General Light Industry	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Other Non-Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
General Light Industry	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00

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	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Other Non-Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
General Light Industry	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00

Total	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Other Non-Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
General Light Industry	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Other Non-Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
General Light Industry	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00

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	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Light Industry	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.26	0.26
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.26	0.26

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Light Industry	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.26	0.26
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.26	0.26
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Light Industry	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.04	0.04
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	TOG	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	TOG	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	TOG	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	TOG	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	TOG	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	TOG	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	1/1/2026	1/14/2026	5.00	10.0	—
Grading/Excavation	Grading	1/15/2026	2/25/2026	5.00	30.0	—
Infra. Install	Building Construction	2/26/2026	7/15/2026	5.00	100	—
Paving/Site Restoration	Paving	10/8/2026	10/21/2026	5.00	10.0	—
Pipe Install	Trenching	7/16/2026	10/7/2026	5.00	60.0	—

5.2. Off-Road Equipment

5.2.1. Unmitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Site Preparation	Tractors/Loaders/Backhoes	Diesel	Average	1.00	8.00	84.0	0.37
Grading/Excavation	Tractors/Loaders/Backhoes	Diesel	Average	1.00	8.00	84.0	0.37
Grading/Excavation	Plate Compactors	Diesel	Average	1.00	8.00	8.00	0.43
Infra. Install	Tractors/Loaders/Backhoes	Diesel	Average	1.00	8.00	84.0	0.37

Infra. Install	Plate Compactors	Diesel	Average	1.00	8.00	8.00	0.43
Infra. Install	Air Compressors	Diesel	Average	1.00	8.00	37.0	0.48
Infra. Install	Cranes	Diesel	Average	1.00	8.00	367	0.29
Infra. Install	Rubber Tired Dozers	Diesel	Average	1.00	8.00	367	0.40
Infra. Install	Dumpers/Tenders	Diesel	Average	1.00	8.00	16.0	0.38
Infra. Install	Excavators	Diesel	Average	1.00	8.00	36.0	0.38
Infra. Install	Graders	Diesel	Average	1.00	8.00	148	0.41
Paving/Site Restoration	Graders	Diesel	Average	1.00	8.00	148	0.41
Paving/Site Restoration	Pavers	Diesel	Average	1.00	8.00	81.0	0.42
Paving/Site Restoration	Paving Equipment	Diesel	Average	1.00	8.00	89.0	0.36
Paving/Site Restoration	Rollers	Diesel	Average	1.00	8.00	36.0	0.38
Paving/Site Restoration	Signal Boards	Diesel	Average	1.00	8.00	6.00	0.82
Paving/Site Restoration	Sweepers/Scrubbers	Diesel	Average	1.00	8.00	36.0	0.46
Pipe Install	Tractors/Loaders/Backhoes	Diesel	Average	1.00	8.00	84.0	0.37
Pipe Install	Plate Compactors	Diesel	Average	1.00	8.00	8.00	0.43
Pipe Install	Cranes	Diesel	Average	1.00	8.00	367	0.29
Pipe Install	Dumpers/Tenders	Diesel	Average	1.00	8.00	16.0	0.38
Pipe Install	Graders	Diesel	Average	1.00	8.00	148	0.41

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	2.50	18.5	LDA,LDT1,LDT2
Site Preparation	Vendor	—	10.2	HHDT,MHDT
Site Preparation	Hauling	1.20	20.0	HHDT
Site Preparation	Onsite truck	—	—	HHDT
Grading/Excavation	—	—	—	—
Grading/Excavation	Worker	5.00	18.5	LDA,LDT1,LDT2
Grading/Excavation	Vendor	—	10.2	HHDT,MHDT
Grading/Excavation	Hauling	12.4	20.0	HHDT
Grading/Excavation	Onsite truck	—	—	HHDT
Infra. Install	—	—	—	—
Infra. Install	Worker	0.42	18.5	LDA,LDT1,LDT2
Infra. Install	Vendor	0.16	10.2	HHDT,MHDT
Infra. Install	Hauling	0.00	20.0	HHDT
Infra. Install	Onsite truck	—	—	HHDT
Pipe Install	—	—	—	—
Pipe Install	Worker	12.5	18.5	LDA,LDT1,LDT2
Pipe Install	Vendor	—	10.2	HHDT,MHDT
Pipe Install	Hauling	0.00	20.0	HHDT
Pipe Install	Onsite truck	—	—	HHDT
Paving/Site Restoration	—	—	—	—
Paving/Site Restoration	Worker	15.0	18.5	LDA,LDT1,LDT2
Paving/Site Restoration	Vendor	—	10.2	HHDT,MHDT
Paving/Site Restoration	Hauling	0.00	20.0	HHDT
Paving/Site Restoration	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)
Paving/Site Restoration	0.00	0.00	1,500	500	4,182

5.6. Dust Mitigation

5.6.1. Construction Earthmoving Activities

Phase Name	Material Imported (cy)	Material Exported (cy)	Acres Graded (acres)	Material Demolished (Building Square Footage)	Acres Paved (acres)
Site Preparation	—	—	0.00	1,000	—
Grading/Excavation	—	2,972	0.00	0.00	—
Paving/Site Restoration	0.00	0.00	0.00	0.00	1.60

5.6.2. Construction Earthmoving Control Strategies

Control Strategies Applied	Frequency (per day)	PM10 Reduction	PM2.5 Reduction
Water Exposed Area	2	61%	61%
Water Demolished Area	2	36%	36%

5.7. Construction Paving

Land Use	Area Paved (acres)	% Asphalt
Other Non-Asphalt Surfaces	1.60	0%
General Light Industry	0.00	0%

5.8. Construction Electricity Consumption and Emissions Factors

kWh per Year and Emission Factor (lb/MWh)

Year	kWh per Year	CO2	CH4	N2O

2026	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
Total all Land Uses	0.00	0.00	0.00	4.00	0.00	0.00	0.00	80.0

5.10. Operational Area Sources

5.10.1. Hearths

5.10.1.1. Unmitigated

5.10.2. Architectural Coatings

Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
0	0.00	1,500	500	4,182

5.10.3. Landscape Equipment

Season	Unit	Value
Snow Days	day/yr	0.00
Summer Days	day/yr	250

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)

Other Non-Asphalt Surfaces	0.00	346	0.0330	0.0040	0.00
General Light Industry	330,000	346	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)
Other Non-Asphalt Surfaces	0.00	0.00
General Light Industry	0.00	0.00

5.13. Operational Waste Generation

5.13.1. Unmitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
Other Non-Asphalt Surfaces	0.00	—
General Light Industry	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
General Light Industry	Other commercial A/C and heat pumps	R-410A	2,088	0.30	4.00	4.00	18.0

5.15. Operational Off-Road Equipment

5.15.1. Unmitigated

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

5.16. Stationary Sources

5.16.1. Emergency Generators and Fire Pumps

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

5.16.2. Process Boilers

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

5.17. User Defined

Equipment Type	Fuel Type

5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres

5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.2. Sequestration

5.18.2.1. Unmitigated

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

6. Climate Risk Detailed Report

6.1. Climate Risk Summary

Cal-Adapt midcentury 2040–2059 average projections for four hazards are reported below for your project location. These are under Representation Concentration Pathway (RCP) 8.5 which assumes GHG emissions will continue to rise strongly through 2050 and then plateau around 2100.

Climate Hazard	Result for Project Location	Unit
Temperature and Extreme Heat	21.6	annual days of extreme heat
Extreme Precipitation	5.30	annual days with precipitation above 20 mm
Sea Level Rise	—	meters of inundation depth
Wildfire	21.8	annual hectares burned

Temperature and Extreme Heat data are for grid cell in which your project are located. The projection is based on the 98th historical percentile of daily maximum/minimum temperatures from observed historical data (32 climate model ensemble from Cal-Adapt, 2040–2059 average under RCP 8.5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Extreme Precipitation data are for the grid cell in which your project are located. The threshold of 20 mm is equivalent to about ¾ an inch of rain, which would be light to moderate rainfall if received over a full day or heavy rain if received over a period of 2 to 4 hours. Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Sea Level Rise data are for the grid cell in which your project are located. The projections are from Radke et al. (2017), as reported in Cal-Adapt (Radke et al., 2017, CEC-500-2017-008), and consider inundation location and depth for the San Francisco Bay, the Sacramento-San Joaquin River Delta and California coast resulting different increments of sea level rise coupled with extreme storm events. Users may select from four scenarios to view the range in potential inundation depth for the grid cell. The four scenarios are: No rise, 0.5 meter, 1.0 meter, 1.41 meters
Wildfire data are for the grid cell in which your project are located. The projections are from UC Davis, as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider historical data of climate, vegetation, population density, and large (> 400 ha) fire history. Users may select from four model simulations to view the range in potential wildfire probabilities for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

6.2. Initial Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	2	0	0	N/A
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	1	0	0	N/A
Wildfire	1	0	0	N/A
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	0	0	0	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.
The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores do not include implementation of climate risk reduction measures.

6.3. Adjusted Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	2	1	1	3
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	1	1	1	2
Wildfire	1	1	1	2
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	1	1	1	2

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.
The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores include implementation of climate risk reduction measures.

6.4. Climate Risk Reduction Measures

7. Health and Equity Details

7.1. CalEnviroScreen 4.0 Scores

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

Indicator	Result for Project Census Tract
Exposure Indicators	—
AQ-Ozone	91.1

AQ-PM	45.7
AQ-DPM	67.5
Drinking Water	57.7
Lead Risk Housing	2.58
Pesticides	0.00
Toxic Releases	39.3
Traffic	65.1
Effect Indicators	—
CleanUp Sites	0.00
Groundwater	25.1
Haz Waste Facilities/Generators	81.7
Impaired Water Bodies	0.00
Solid Waste	0.00
Sensitive Population	—
Asthma	8.28
Cardio-vascular	14.2
Low Birth Weights	28.4
Socioeconomic Factor Indicators	—
Education	19.8
Housing	48.5
Linguistic	18.1
Poverty	16.3
Unemployment	65.6

7.2. Healthy Places Index Scores

The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Economic	—

Above Poverty	95.54728603
Employed	91.08174002
Median HI	90.32465033
Education	—
Bachelor's or higher	81.05992557
High school enrollment	100
Preschool enrollment	86.44937765
Transportation	—
Auto Access	53.75336841
Active commuting	47.69665084
Social	—
2-parent households	77.10766072
Voting	73.37354036
Neighborhood	—
Alcohol availability	86.94982677
Park access	33.99204414
Retail density	25.7153856
Supermarket access	55.71666881
Tree canopy	63.30039779
Housing	—
Homeownership	74.51559091
Housing habitability	77.4541255
Low-inc homeowner severe housing cost burden	90.37597844
Low-inc renter severe housing cost burden	54.20248941
Uncrowded housing	48.36391634
Health Outcomes	—
Insured adults	94.93134865
Arthritis	97.4

Asthma ER Admissions	96.4
High Blood Pressure	97.6
Cancer (excluding skin)	77.2
Asthma	95.7
Coronary Heart Disease	98.1
Chronic Obstructive Pulmonary Disease	98.5
Diagnosed Diabetes	96.7
Life Expectancy at Birth	91.7
Cognitively Disabled	80.8
Physically Disabled	96.1
Heart Attack ER Admissions	75.9
Mental Health Not Good	90.0
Chronic Kidney Disease	98.0
Obesity	90.2
Pedestrian Injuries	67.4
Physical Health Not Good	97.3
Stroke	98.4
Health Risk Behaviors	—
Binge Drinking	11.9
Current Smoker	87.1
No Leisure Time for Physical Activity	95.4
Climate Change Exposures	—
Wildfire Risk	39.7
SLR Inundation Area	0.0
Children	14.8
Elderly	95.3
English Speaking	66.2
Foreign-born	44.0

Outdoor Workers	75.4
Climate Change Adaptive Capacity	—
Impervious Surface Cover	68.5
Traffic Density	34.7
Traffic Access	23.0
Other Indices	—
Hardship	16.2
Other Decision Support	—
2016 Voting	58.3

7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	18.0
Healthy Places Index Score for Project Location (b)	91.0
Project Located in a Designated Disadvantaged Community (Senate Bill 535)	No
Project Located in a Low-Income Community (Assembly Bill 1550)	No
Project Located in a Community Air Protection Program Community (Assembly Bill 617)	No

a: The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.
b: The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

7.4. Health & Equity Measures

No Health & Equity Measures selected.

7.5. Evaluation Scorecard

Health & Equity Evaluation Scorecard not completed.

7.6. Health & Equity Custom Measures

No Health & Equity Custom Measures created.

8. User Changes to Default Data

Screen	Justification
Land Use	Impervious surfaces modeled as non-asphalt. Chem feed system bldg modeled as gen. light industry.
Construction: Construction Phases	Assumed start date of Jan 1 2026. Phase lengths based on applicant provided data. Pipeline installation phase modeled as "trenching" phase type.
Construction: Off-Road Equipment	Per applicant provided data.
Construction: Demolition	upgrades to existing facility assumed to include disassembly and hauling of existing components
Operations: Energy Use	Electricity consumption based on applicant provided project description. No natural gas use per data request
Operations: Water and Waste Water	Water conveyance accounted for in electricity consumption
Operations: Solid Waste	no solid waste generation
Operations: Fleet Mix	adjusted to reflect HHD vehicle trips required for semiannual resin change-outs

Appendix B

Biological Resources Assessment



Wells W9 and W10 Groundwater Treatment Improvements Project

Draft Biological Resources Assessment

prepared for

Santa Clarita Valley Water Agency
26515 Summit Circle
Santa Clarita, California 91350
Contact: Yoganathan Thierumaran, PE, Engineer

prepared by

Rincon Consultants, Inc.
250 East 1st Street, Suite 1400
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October 2025

RINCON CONSULTANTS

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Executive Summary

The Wells W9 and W10 Groundwater Treatment Improvements Project involves the construction and operation of groundwater treatment improvements for Wells W9 and W10 in the City of Santa Clarita, Los Angeles County, California. The project includes rehabilitation of the existing wells, construction of a centralized groundwater treatment facility, installation of raw water and discharge pipelines, and associated access road improvements. The purpose of the project is to treat groundwater for per- and polyfluoroalkyl substances (PFAS), restore the use of the wells, and reduce reliance on imported water supplies. The maximum project site spans approximately 36 acres and is located adjacent to San Francisquito Creek and the San Francisquito Creek Trail.

The Survey Area encompasses the project site and a 50-foot buffer, totaling approximately 63.37 acres. The area includes disturbed and developed land, as well as natural habitats adjacent to San Francisquito Creek. A field reconnaissance survey was conducted in April 2025 to document existing biological resources and assess potential impacts.

Seventeen vegetation communities and land cover types were identified within the Survey Area. These include California buckwheat scrub, disturbed California buckwheat scrub, California sagebrush scrub, scrub oak chaparral, coyote brush scrub, chamise chaparral, disturbed chamise chaparral, cattail marshes, Fremont cottonwood woodland, red willow riparian woodland, mulefat thickets, tamarisk thickets, wild oat and annual brome grassland, developed, disturbed, riverwash and ornamental landscaping. Two sensitive natural communities were documented: Fremont cottonwood woodland and red willow riparian woodland.

A total of 79 special-status species were evaluated, including 34 plant species and 45 wildlife species. No special-status plant species were observed or determined to have moderate or high potential to occur on the project site due to unsuitable habitat conditions. Several special-status wildlife species were determined to have moderate or high potential to occur, including: coastal California gnatcatcher, least Bell's vireo, coast horned lizard, coastal whiptail, and California legless lizard.

San Francisquito Creek, an intermittent stream, is present within the Survey Area and project activities may be subject to regulation under the Clean Water Act, Porter-Cologne Water Quality Control Act, and California Fish and Game Code.

The project may result in direct and indirect impacts to sensitive vegetation communities, special-status wildlife species, and potentially jurisdictional waters. These impacts could be significant without mitigation. This Biological Resources Assessment includes avoidance, minimization, and mitigation measures that would reduce impacts to less-than-significant levels. These measures include pre-construction surveys, worker environmental awareness training, habitat avoidance, and compensatory mitigation for unavoidable impacts.

1 Introduction

This Biological Resources Assessment (BRA) documents the findings of a biological survey conducted by Rincon Consultants, Inc. (Rincon), for the Santa Clarita Valley Water Agency (SCV Water) Wells W9 and W10 Groundwater Treatment Improvements Project (project). The assessment was completed to document existing site conditions via desktop analysis and a reconnaissance-level field survey, and to evaluate potential impacts to regulated biological resources based on current project plans. The BRA is intended to support review of the project pursuant to the California Environmental Quality Act (CEQA). As such, the BRA has been prepared in accordance with the CEQA Guidelines Appendix G Checklist for Biological Resources. All materials reviewed for this report are identified in Section 1.3.

The Survey Area for the project includes the project site and an approximately 50-foot buffer beyond the limits of the project site, where practicable, to address potential indirect project effects, such as noise and dust.

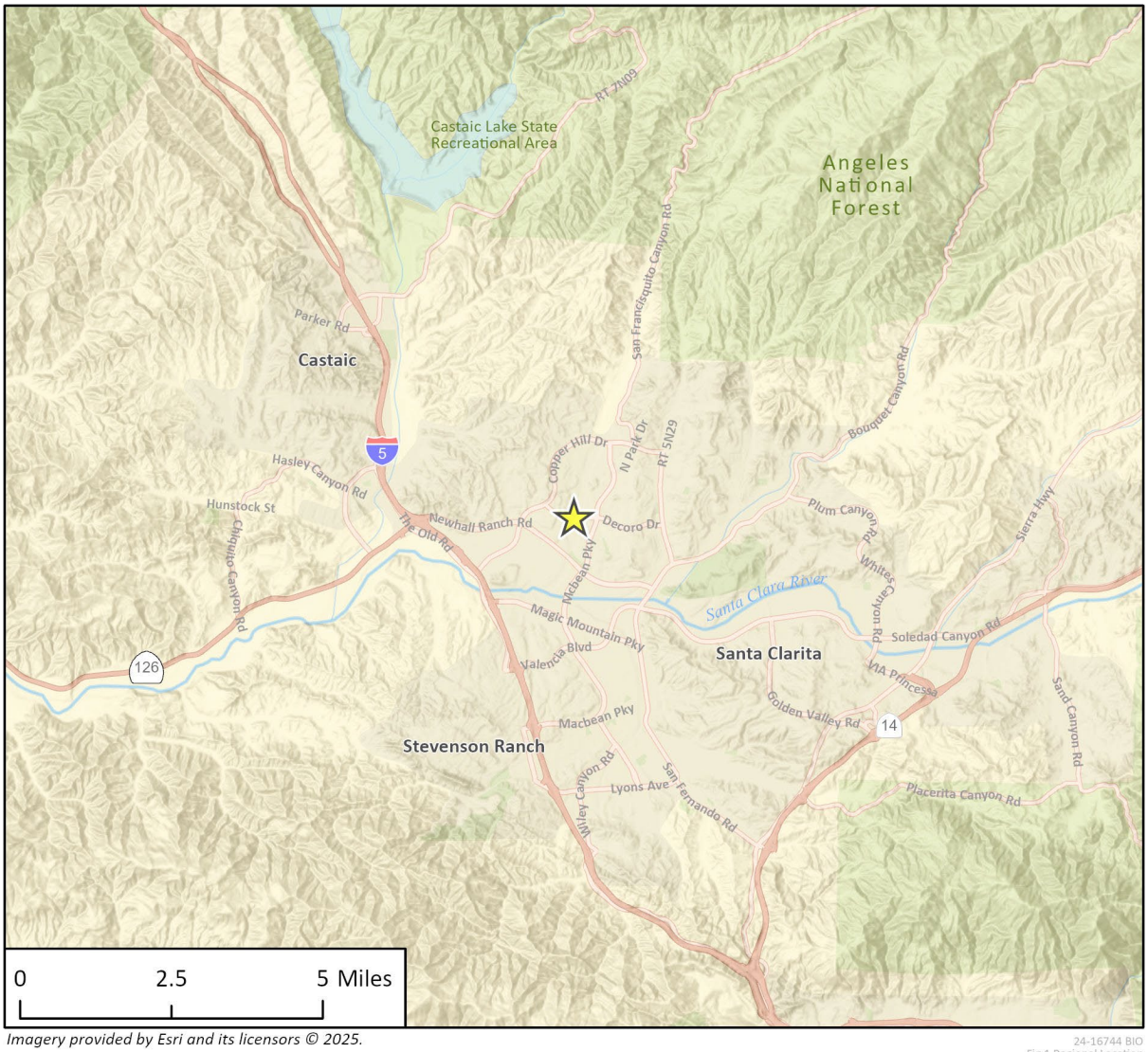
1.1 Project Location

The project site is located in the city of Santa Clarita within the northwestern portion of Los Angeles county. The project site comprises an approximately 36-acre maximum project area, spanning the following properties and public right-of-way:

- Assessor's Parcel Number (APN) 2810-002-101: The parcel contains the existing Well W9 site, which occupies approximately 0.2 acre (8,700 square feet). The site is located just west of San Francisquito Creek, about 0.5 mile north of Decoro Drive, 0.8 mile south of Copper Hill Drive, and 200 feet east of the San Francisquito Creek Trail. San Francisquito Creek runs north to south through the parcel.
- APN 2810-067-008: The parcel also includes the existing Well W10 site, which occupies approximately 0.03 acre (1,330 square feet). The site is situated within a parking lot just north of Newhall Ranch Road, approximately 150 feet west of San Francisquito Creek, and 0.6 mile south of Decoro Drive.
- Public Right-of-Way of San Francisquito Creek Trail. The project site includes approximately 11,000 linear feet of the San Francisquito Creek Trail, which generally runs north-south along the west side of San Francisquito Creek through the City of Santa Clarita.

Figure 1 provides a map of the regional project location, while Figure 2 and Figure 3 illustrate the project site location in a local context. Access to the Well W9 site is available via the San Francisquito Creek Trail from Copper Hill Drive, and access to the Well W10 site is provided directly from Newhall Ranch Road.

Figure 1 Regional Location Map



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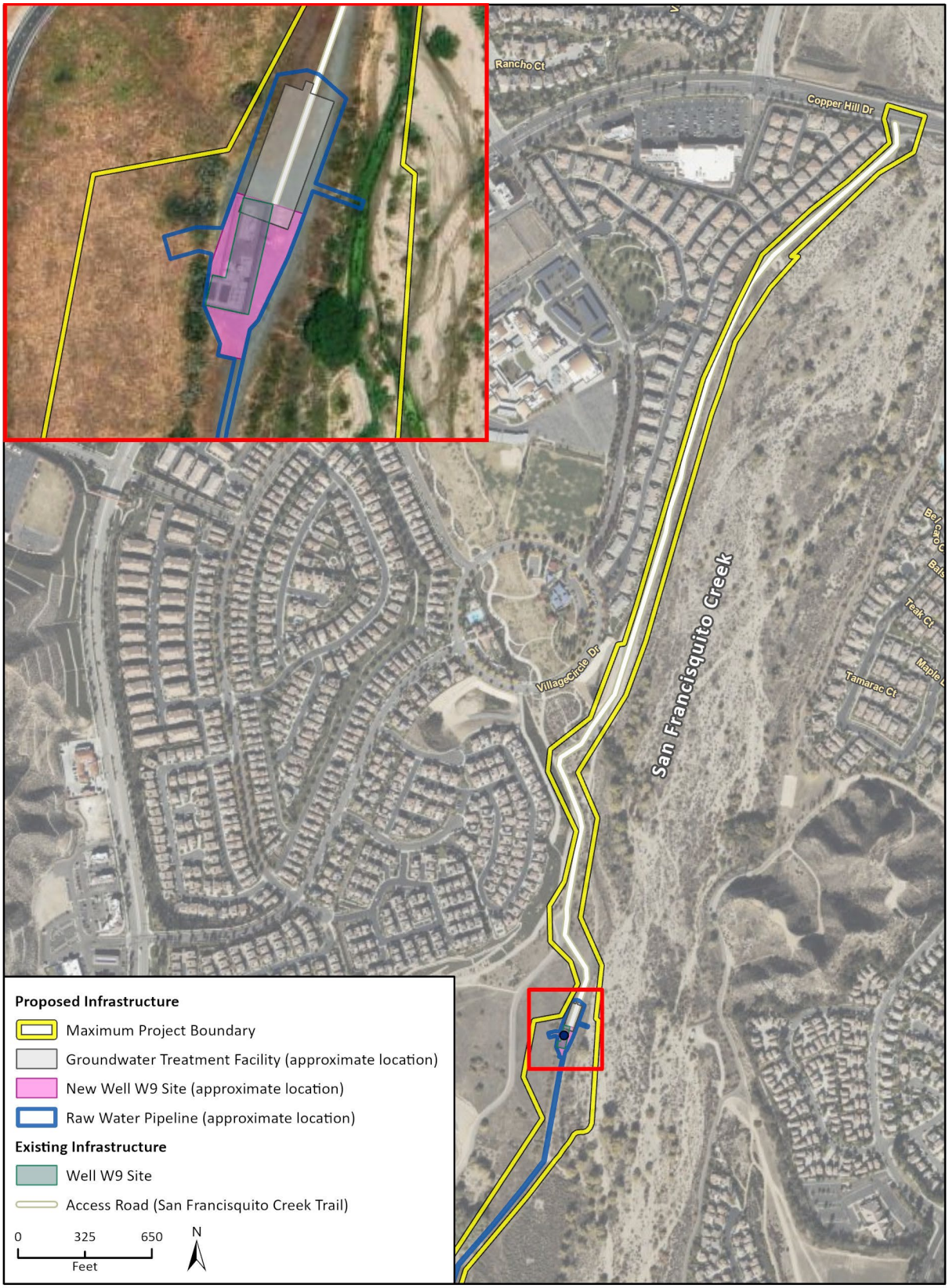
24-16744 BIO
Fig 1 Regional Location

Project Location

N



Figure 2 Project Site Location – Northern Extent



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24-16744 BIO
Fig 2 Project Location - Top

Figure 3 Project Site Location – Southern Extent



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24-16744 BIO
Fig 2 Project Location - Bottom

1.2 Project Description

The Wells W9 and W10 Groundwater Treatment Improvements Project (herein referred to as "proposed project" or "project") involves the construction of a groundwater treatment facility and associated pipelines to treat per- and polyfluoroalkyl substances (PFAS) to levels below the federal Maximum Contaminant Level, restore the use of Wells W9 and W10, and reduce SCV Water's dependency on imported water. The following sections describe the project components.

The project is currently in the design phase. Proposed locations for the groundwater treatment facility, the new Well W9 site, and the raw water pipeline are shown in Figure 2 and Figure 3; however, these locations are subject to change. To ensure a comprehensive analysis of all potential impacts to biological resources, it is assumed that all project components would ultimately be located within the Maximum Project Boundary depicted in Figure 2 and Figure 3.

1.2.1 Well W9 Site

The project components described below would occur at the new Well W9 site (Figure 2).

Well W9 Rehabilitation

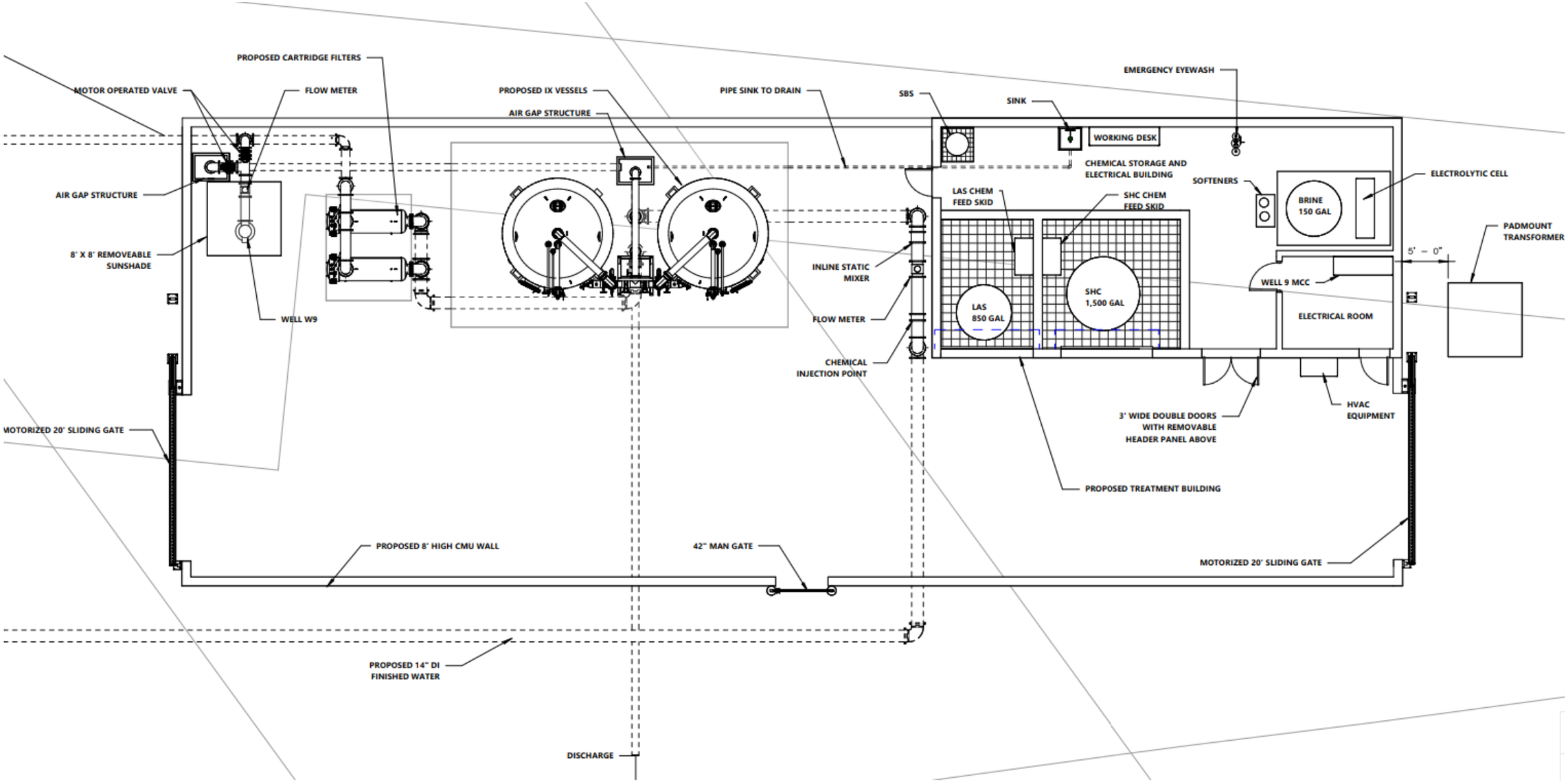
Well W9 would be rehabilitated; rehabilitation would involve removal of existing well equipment and installation of a new vertical turbine, 12-inch well pump, a 250 horsepower motor, and electrical equipment. The rehabilitated Well W9 would have a design flow capacity of 1,200 gallons per minute (gpm). The currently proposed location of the modified Well W9 site is shown in Figure 2; the final well location would be generally located in this area within the Maximum Project Boundary.

Centralized Groundwater Treatment Facility

The project includes construction of a centralized groundwater treatment facility within APN 2810-002-101 near the existing Well W9 site. The currently proposed location of the groundwater treatment facility is shown in Figure 2; the final location would be generally located in this area within the Maximum Project Boundary. The facility would include two cartridge filters, one set of ion-exchange vessels (or equivalent technology), yard piping, and a building to house chemical feed and storage, controls, and electrical equipment. Each of the cartridge filters (including aboveground piping) would be approximately 30 square feet and seven feet in height. The ion-exchange vessels (including appurtenances) would be approximately 12 feet in diameter and 14 feet in height. Together, the filters and vessels would handle a maximum flow rate of 2,000 gpm. Figure 4 illustrates the conceptual layout of the proposed groundwater treatment facility.

The project also involves installation of several chemical feed systems. The project includes converting the existing tablet chlorination system at Well W9 to a chloramine-based distribution system consisting of disinfection with liquid sodium hypochlorite followed by chloramine formation utilizing liquid ammonium sulfate. This disinfection system may include water softeners, a brine tank, a skid-mounted electrolytic cell, a sodium hypochlorite storage tank, and two skid-mounted metering pumps, all situated on an equipment pad with a concrete containment curb and/or chemical containment trench with fiberglass-reinforced plastic grating. In addition, a bulk storage tank for liquid ammonium sulfate would be installed with a concrete containment curb and/or chemical containment trenches with fiberglass-reinforced plastic grating and two skid-mounted metering pumps. To dechlorinate water that may be used for rinsing each new set of resin media for

Figure 4 Conceptual Layout of Proposed Groundwater Treatment Facility



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the proposed ion-exchange vessels, sodium bisulfite would be used. The facility would include a sodium bisulfite bulk storage tank and an approximately 200-foot groundwater discharge pipeline between the facility and San Francisquito Creek.

The proposed cartridge filters and ion-exchange vessels would be installed outside within the treatment facility. The chemical feed systems would be installed within a concrete masonry unit treatment building approximately 80 feet by 60 feet in area and 30 feet in height.

Emergency shower and eyewash stations would be installed outside the building. All elements of the treatment facility would be enclosed within a concrete masonry unit wall with two sliding gates for vehicle access and one gate for pedestrian access. New lighting would be installed around the treatment facility building and site ingress/egress, and lighting would be downcast to minimize glare. Lighting would remain off at night and would only be turned on for operations and repairs. The facility would also include a new supervisory control and data acquisition system. The treatment facility would result in the addition of approximately 10,000 square feet of impervious surfaces to the project site. Demolition and reconstruction of the wells and construction of the treatment facility would occur over approximately 20 weeks.

The project would also involve installation of an approximately 200-linear foot discharge pipeline, which would convey treated, discharged groundwater from the treatment facility to San Francisquito Creek. The project may include the installation of rip-rap or other energy-dissipating features at the terminus of the discharge pipeline, which would not exceed an area of 50 by 50 feet.

Electrical Upgrades

To accommodate increased load demand for the new well pump and PFAS treatment equipment, existing pole-mounted transformers would be replaced with a pad-mounted transformer located adjacent to the treatment facility. In addition, new underground conduits and wires would be routed to the existing Well W9 site.

1.2.2 Well W10 Site

The project components described below would occur at the existing Well W10 site (Figure 3).

Well W10 Rehabilitation

Well W10 would be rehabilitated; rehabilitation would involve removal of existing well equipment and installation of a new vertical turbine, 12-inch well pump, a 300 horsepower motor, and electrical equipment. The rehabilitated Well W10 would have a design flow capacity of 1,500 gpm. The project includes converting the existing tablet chlorination system at Well W10 to a chloramine-based distribution system consisting of disinfection with liquid sodium hypochlorite followed by chloramine formation utilizing liquid ammonium sulfate.

Electrical Upgrades

To accommodate increased load demand for the new well pump, existing pole-mounted transformers would be replaced with a pad-mounted transformer located adjacent to the treatment facility. In addition, new underground conduits and wires would be routed to the existing Well W10 site.

1.2.3 Pipeline and Access Roads

The following project components are generally planned along the raw water pipeline and access road alignment, as illustrated in Figures 2 and 3.

Raw Water and Discharge Pipeline Installation

The project involves installation of a raw water pipeline between Well W10 and W9 to convey groundwater extracted via Well W10 to the proposed treatment facility at the Well W9 site. The pipeline would be 12 inches in diameter and would consist of approximately 6,100 linear feet of ductile iron pipe. The pipeline alignment is currently proposed to be within the San Francisquito Creek Trail and would follow the trail's alignment from the Well W10 site to the Well W9 site and the proposed treatment facility. The pipeline's ultimate alignment is subject to change but would be located within the Maximum Project Boundary. The pipeline would be primarily installed using open-cut excavation along the San Francisquito Creek Trail. The segment crossing the Decoro Drive bridge would be installed using trenchless technology methods (jack-and-bore, horizontal directional drilling, etc.). Entry and exit pits for the trenchless installation would be located north and south of Decoro Drive, respectively, and would fall within the maximum project site boundaries. Each pit would measure approximately 40 feet by 40 feet, with a maximum depth of 20 feet.

Installation of the raw water pipeline would occur over approximately 12 weeks. If the pipeline alignment is within the San Francisquito Creek Trail, pipeline installation would require partial or full closure of the trail. For a conservative analysis, it is assumed this segment of the San Francisquito Creek Trail would be fully closed for 12 weeks. The trail would be repaved in accordance with the City of Santa Clarita's standard details upon completion of construction.

Access Road Improvements

Maintenance vehicles currently access the Well W9 site using San Francisquito Creek Trail via Copper Hill Drive. The trail is 16 feet wide and relatively straight, which can accommodate light-duty maintenance vehicles. However, the treatment facility would require resin change outs once or twice per year, which would require a slurry truck 55-feet in length to travel to the treatment facility. There are several places along the trail that would not accommodate a slurry truck's length, and there is not currently a feasible area for a truck to turn around at the Well W9 site. To allow for truck access to the treatment facility, the existing access easement would be expanded in three locations: near the access road entrance off Copper Hill Drive, along the trail near Village Circle Drive, and at the Well W9 site. Trucks would drive along the San Francisquito Creek Trail and adjacent gravel areas. Minor grading work may be required to expand the easement and allow truck travel.

1.2.4 Construction

Construction of the project is expected to occur over approximately 30 months. Typical construction activities would take place Monday through Friday, between 7:00 a.m. to 4:00 p.m. However, nighttime construction may be required to rehabilitate Well W9 and W10, as well as for pipeline installation along the San Francisquito Creek Trail. Night work would occur between 8:30 p.m. and 4:30 a.m., Mondays through Saturday. Temporary lighting may be used during nighttime construction, and all lighting would be directed downward to minimize light spill beyond the work area.

The maximum depth of excavation for construction for the project would be 12 feet, except for the trenchless installation pits which would have a maximum depth of 20 feet. Soil excavated from the site would be used as fill, and excess soil would be transported using haul trucks with a capacity of 16 cubic yards and disposed of at the Sunshine Canyon Landfill or another local landfill. The project would require temporary closure of the San Francisquito Creek Trail during pipeline installation. Project construction would not require temporary roadway lane closures. Construction access to the Well W9 site would be from Copper Hill Drive and the San Francisquito Creek Trail. Construction materials would be staged on existing gravel areas at the Well W9 site.

Project construction is not anticipated to require groundwater dewatering. However, if groundwater is unexpectedly encountered during excavations, SCV Water would obtain coverage under the appropriate National Pollutant Discharge Elimination System (NPDES) Permit for discharge to surface water bodies (i.e., San Francisquito Creek) and would comply with the water quality requirements outlined in the permit, which may necessitate treatment prior to discharge to be protective of surface water quality.

Following completion of project construction, Wells W9 and W10 and the treatment facility would be flushed, and water produced during flushing would be discharged to San Francisquito Creek. This discharge would be subject to compliance with SCV Water's existing coverage under Waste Discharge Requirements Order WQ 2014-0194-DWQ/General Order No. CAG140001 (ID: 4DW0430), which is the Statewide NPDES Permit for Drinking Water System Discharges to Waters of the United States.

1.2.5 Operations and Maintenance

Under the proposed project, Wells W9 and W10 would be reactivated, and the proposed groundwater treatment facility would be brought online. The treatment facility would operate 24 hours a day, seven days a week, 365 days a year with a maximum flow rate of 2,000 gpm. The two well pumps would be individually controlled and monitored through the supervisory control and data acquisition system, allowing SCV Water to turn on one or both well pumps at the same time. It is anticipated that approximately 3,230 acre-feet per year of groundwater would be pumped, depending on hydrologic year type and in consideration of implementation constraints outlined in the Santa Clara River Valley East Groundwater Subbasin Groundwater Sustainability Plan (GSP). Annual groundwater pumping rates under this project for the two wells would be consistent with historical pumping rates for Wells W9 and W10 and would not exceed the pumping quantities provided in the groundwater level simulations used in the GSP. Routine flushing of the wells would be required. When the well starts up, water would be flushed for approximately 10 minutes. If the well has been offline for an extended period of time, water would be flushed for approximately two hours. Water used for routine flushing would be treated and discharged to San Francisquito Creek and would be subject to compliance with SCV Water's existing coverage under Waste Discharge Requirements Order WQ 2014-0194-DWQ/General Order No. CAG140001 (ID: 4DW0430), which is the Statewide NPDES Permit for Drinking Water System Discharges to Waters of the United States.

Project operation would require daily site visits by SCV Water staff, which would be integrated into existing staff rounds, and weekly chemical deliveries, which would be integrated into routine chemical deliveries. Resin change-outs would occur approximately every nine to 12 months. No new employees would be needed to operate the project.

The project would result in a net increase in electricity consumption due to the additional energy required to pump groundwater through the groundwater treatment facility, and Southern California

Edison would be the electricity provider. Operation of the proposed project would require approximately 770 to 900 kilowatt-hours (kWh) of electricity daily, or approximately 280 to 330 megawatt-hours (MWh) annually.

Sodium hypochlorite (chlorine) and liquid ammonium sulfate would be stored at the proposed facility in a completely enclosed structure with proper containment and venting. Sodium hypochlorite is a liquid disinfection agent added to the water and is commonly referred to as "bleach." Sodium hypochlorite is not the equivalent of chlorine gas, and chlorine gas would not be used or released during project operation. The chemicals stored on site would not be classified as hazardous due to low concentrations of ammonia and chlorine. In accordance with standard operating practice, SCV Water would submit an emergency response/contingency plan as part of a Hazardous Materials Business Plan to the California Environmental Reporting System for the proposed facility.

1.3 Regulatory Summary

Regulated biological resources studied and analyzed herein include special-status plant and wildlife species, nesting birds and raptors, sensitive natural communities, U.S. Fish and Wildlife Service (USFWS)-Designated Critical Habitat, jurisdictional waters and wetlands, wildlife movement, and locally protected resources, such as protected trees. The regulatory framework used for this report is included in Appendix A.

1.3.1 Definition of Special Status Species

For the purposes of this report, special status species include:

- Species listed as threatened or endangered under the Federal Endangered Species Act (FESA); including proposed and candidate species
- Species listed as candidate, threatened, or endangered under the California Endangered Species Act (CESA)
- Species designated as Fully Protected by the California Fish and Game Code (CFGC), and Species of Special Concern or Watch List by the California Department of Fish and Wildlife (CDFW)
- Native Plant Protection Act (NPPA) – State Rare (SR)
- California Native Plant Society (CNPS) California Rare Plant Ranks (CRPR) 1A, 1B, 2A, 2B, 3 and 4
- Species designated as locally important by the Local Agency and/or otherwise protected through ordinance, local policy, or Habitat Conservation Plans (HCPs)/ Natural Community Conservation Plan (NCCPs)

1.3.2 Environmental Statuses

For the purpose of this report, potential impacts to biological resources were analyzed based on the following statutes:

Federal

- Federal Endangered Species Act (ESA)
- Federal Clean Water Act (CWA)
- Migratory Bird Treaty Act (MBTA)
- Bald and Golden Eagle Protection Act

State

- California Environmental Quality Act (CEQA)
- California Endangered Species Act (CESA)
- Native Plant Protection Act
- California Fish and Game Code (CFGC)
- Porter-Cologne Water Quality Control Act

Local

- City of Santa Clarita (City) General Plan (2011)
- Santa Clarita Municipal Code

1.3.3 Guidelines for Determining CEQA Significance

The following threshold criteria, as defined by the CEQA Guidelines Appendix G Initial Study Checklist, were used to evaluate potential environmental effects. Based on these criteria, the proposed project would have a significant effect on biological resources if it would:

a) *Have substantial adverse effects, either directly or through habitat modifications, on any species identified as a candidate, sensitive or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or 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, and regulations or by the California Department of Fish and Wildlife or US Fish and Wildlife Service.*

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

d) *Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites.*

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

f) *Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan.*

2 Methodology

2.1 Survey Area

Biologists conducted the biological reconnaissance survey within the defined Survey Area, which included the project site and an approximately 50-foot buffer beyond its limits.

2.2 Literature Review

A literature review was conducted to establish the environmental and regulatory setting of the proposed project. Specific literature reviewed for the subject analysis is provided in the references section. The reviewed literature included the United States Department of Agriculture, Natural Resources Conservation Service (USDA NRCS) Web Soil Survey (USDA NRCS 2025a) and literature detailing the habitat requirements of subject species. Aerial imagery (Google Earth Pro 2025), topographic maps, and soil survey maps were also examined.

Queries of relevant biological resources databases were conducted to obtain comprehensive information regarding regulated biological resources known to occur or considered to have potential to occur in the vicinity of the project site. Databases reviewed included the USFWS Critical Habitat Portal (USFWS 2025a), USFWS National Wetlands Inventory (NWI) (USFWS 2025b), United States Geological Survey (USGS) National Hydrography Dataset (NHD) (USGS 2025), CDFW California Natural Diversity Database (CNDDB) (CDFW 2025a), CDFW Biogeographic Information and Observation System (BIOS) (CDFW 2025b), and California Native Plant Society (CNPS) Online Inventory of Rare, Threatened and Endangered Plants of California (CNPS 2025).

2.3 Field Reconnaissance Survey

The field reconnaissance survey was conducted to provide a general assessment of biological constraints and to identify the potential presence of regulated biological resources within the Survey Area. Rincon Biologists Stella Moore and Austin LeVesque conducted the field reconnaissance survey on April 18, 2025, from 7:30 a.m. to 11:15 p.m. The survey involved walking accessible portions of the Survey Area to characterize existing biological resources, including vegetation communities, the potential presence of special-status species or habitats supporting special-status species, and potentially jurisdictional waters. Weather conditions averaged 54 degrees Fahrenheit, with 3 to 6 mile per hour winds, and 70 to 100 percent cloud cover.

Vegetation mapping and classification followed Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Sensitive Natural Communities (CDFW 2018) and was based on the classification system provided in A Manual of California Vegetation, Second Edition (MCV2; Sawyer et al. 2009). Vegetation communities or land cover types not described in MCV2 were classified using conventional naming practices (i.e., developed) or were defined by the dominant species.

During the field survey, the biologists also mapped the extent of potential Waters of the U.S., CDFW jurisdictional streambeds, and/or Waters of the State within the Survey Area; however, a formal jurisdictional delineation was not conducted. Site photographs from the survey are included in Appendix B.

3 Existing Conditions

3.1 Physical Characteristics

Well W10 is situated within a paved, fenced facility, while Well W9 is located in an area characterized by highly compacted soils and disturbed land. At both sites, portions of the Survey Area east of the well sites contain the east-facing banks of San Francisquito Creek. The project site is otherwise bordered by open space to the east and existing residential development to the west. Vegetation communities within the Survey Area are described in detail below.

3.1.1 Watershed and Drainages

According to the NWI (USFWS 2025c), San Francisquito Creek is classified as riverine habitat, with two areas mapped as freshwater emergent wetlands extending from approximately 700 feet north of Decoro Drive to about 700 feet north of Newhall Ranch Road. The NHD maps San Francisquito Creek as a wash. While San Francisquito Creek lies within the Survey Area, it is located outside the project site boundaries.

3.1.2 Soils

Soils within the Survey Area surrounding Well W9 consist of sandy alluvial land, and Hanford sandy loam with 0-2 percent slopes. In the vicinity of Well W10, soils are mapped as sandy alluvial land and riverwash. The remainder of the Survey Area is primarily composed of sandy alluvial soils, with the other dominant types being Saugus loam on 30 to 50 percent slopes, riverwash, and Hanford sandy loam on 0 to 2 percent slopes. The other soil types present in small portions of the Survey Area include Hanford sandy loam on 2 to 9 percent slopes, Metz loamy sand on 2 to 9 percent slopes, and Yolo loam on 2 to 9 percent slopes. According to the USDA NRCS (2025b), riverwash soils are classified as hydric, and none of the other soil types within the Survey Area are considered hydric.

3.1.3 Vegetation and Other Land Cover

Table 1 summarizes the vegetation communities and land cover types documented within the Survey Area during the reconnaissance survey.

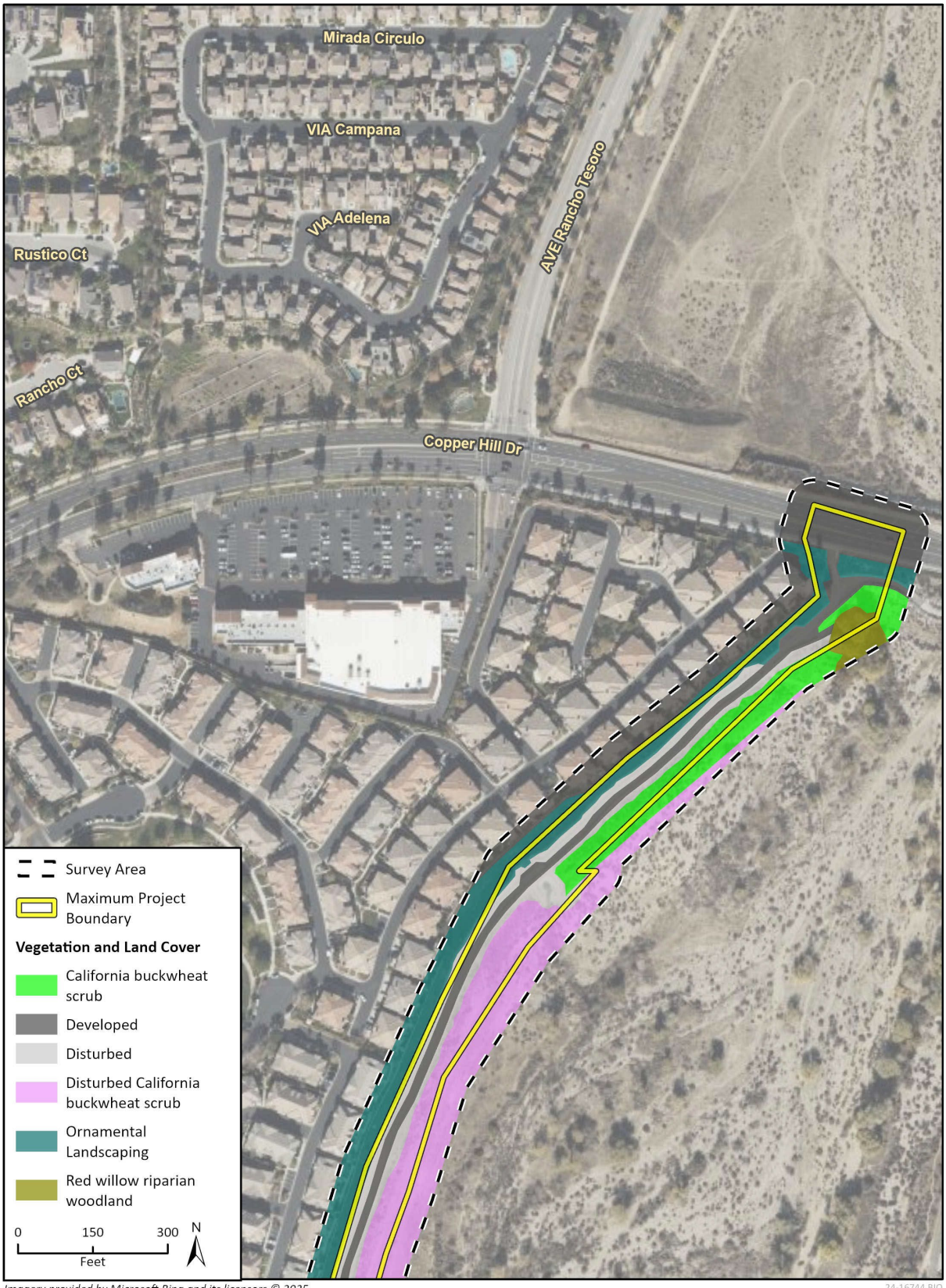
Table 1 Vegetation Communities and Land Cover Types

Vegetation Community/Land Cover	Sensitivity Rank[1]	Acres within Survey Area
California buckwheat scrub (*Eriogonum fasciculatum* Shrubland Alliance)	G5/S5	3.57
Disturbed California buckwheat scrub (*Eriogonum fasciculatum* Shrubland Alliance)	G5/S5	5.62
California Sagebrush Scrub (*Artemisia californica* Shrubland Alliance)	G4/S4	5.57
Scrub oak chaparral (*Quercus berberidifolia - Heteromeles arbutifolia* Shrubland Alliance)	G4/S4	1.30
Coyote brush scrub (*Baccharis pilularis* / Annual grass – herb Shrubland Alliance)	G5/S5	2.03
Chamise chaparral (*Adenostoma fasciculatum – Eriogonum fasciculatum* Shrubland Alliance)	G4/S4	1.06
Disturbed chamise chaparral (*Adenostoma fasciculatum – Eriogonum fasciculatum* Shrubland Alliance)	G4/S4	0.23
Cattail marshes (*Typha latifolia* Herbaceous Alliance)	G5/S5	1.19
Fremont cottonwood woodland (*Populus fremontii* Woodland Alliance)	G2Q/S3	1.61
Red willow riparian woodland (*Salix laevigata* Woodland Alliance)	GNR/S3	0.21
Mulefat thickets (*Baccharis salicifolia* Shrubland Alliance)		3.14
Tamarisk thickets (*Tamarix spp*. Semi-Natural Alliance)	N/A	0.52
Wild oats and annual brome grassland (*Avena* spp. – *Bromus* spp. Herbaceous Semi-Natural Alliance)	N/A	6.46
Developed	N/A	13.82
Disturbed	N/A	5.75
Ornamental Landscaping	N/A	6.42
Riverwash	N/A	4.87
Total		**63.37**

1. Vegetation alliances listed in the CNDDB are ranked from 1 to 5 based on NatureServe's (2025) methodology. Alliances ranked globally (G) or statewide (S) as 1 through 3 are generally considered sensitive, with some exceptions. Brief descriptions of these vegetation communities and land cover types, along with their sensitivity are provided in Section 3.1.3.

Their locations are illustrated in Figure 5 - Figure 9. A list of plant species observed during the April 18, 2025, survey is included in Appendix C.

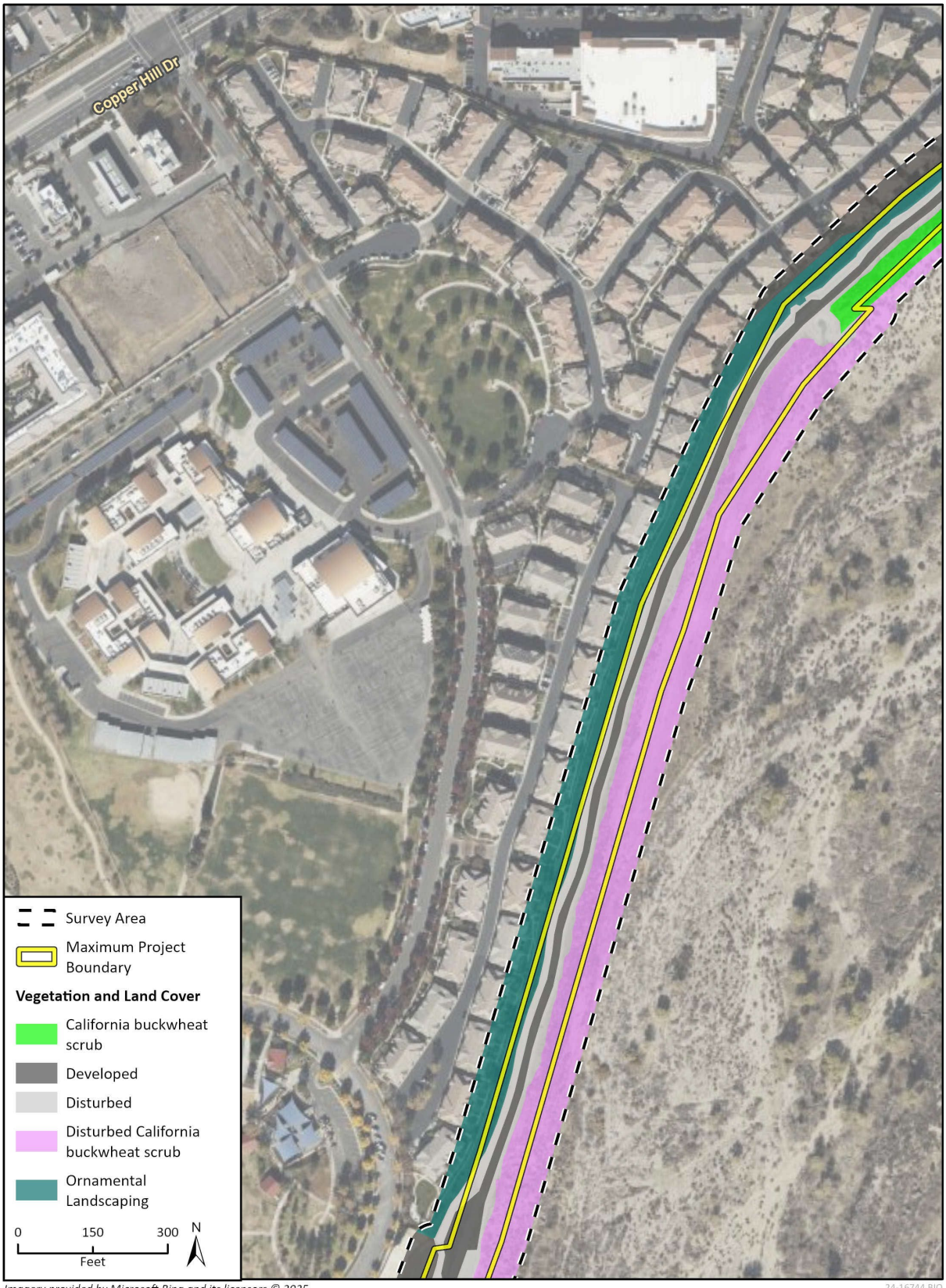
Figure 5 Vegetation Communities and Land Cover Types (1 of 5)



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24-16744 BIO
Fig X Vegetation and Land Cover

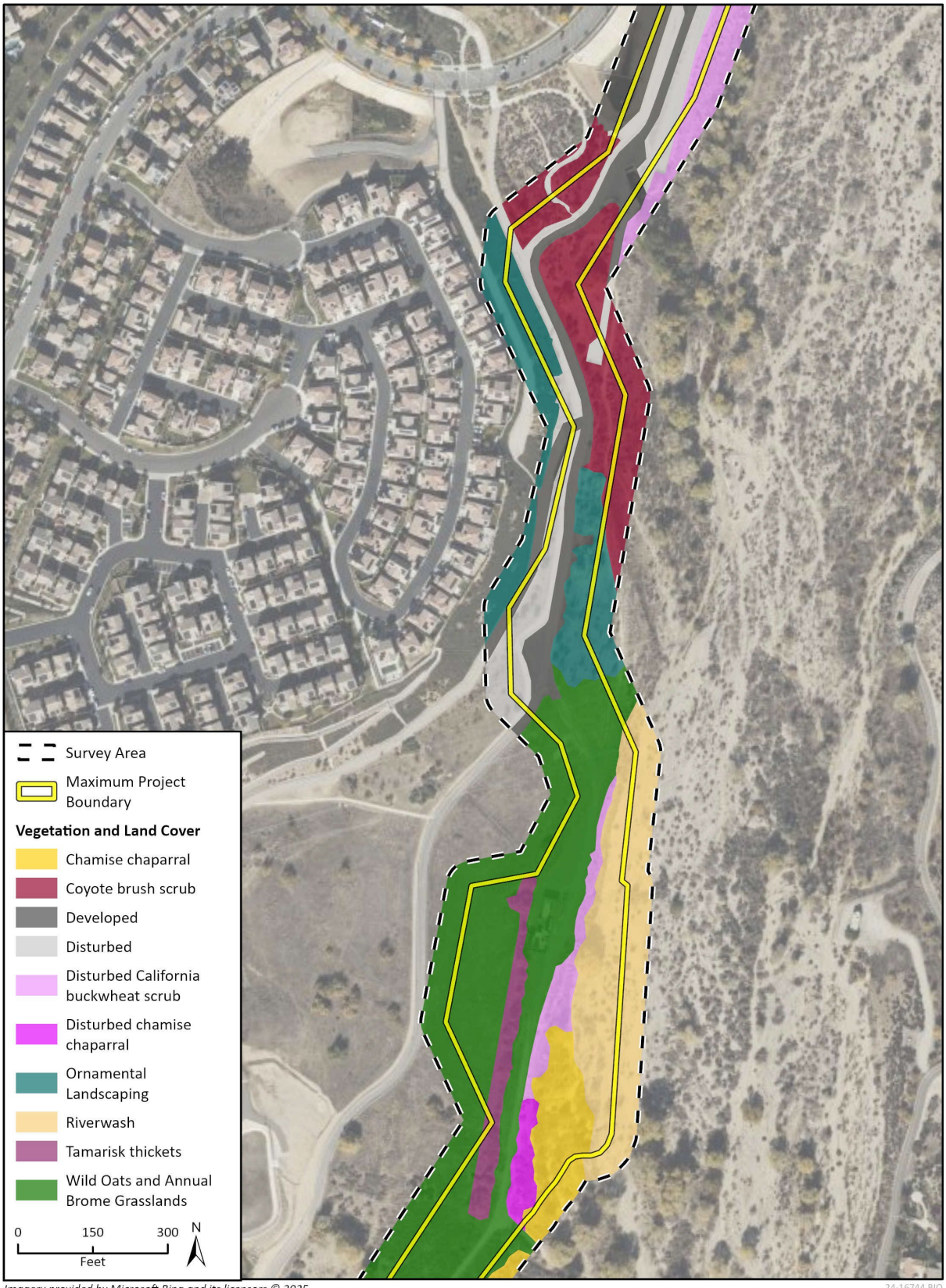
Figure 6 Vegetation Communities and Land Cover Types (2 of 5)



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24-16744 BIO
Fig X Vegetation and Land Cover

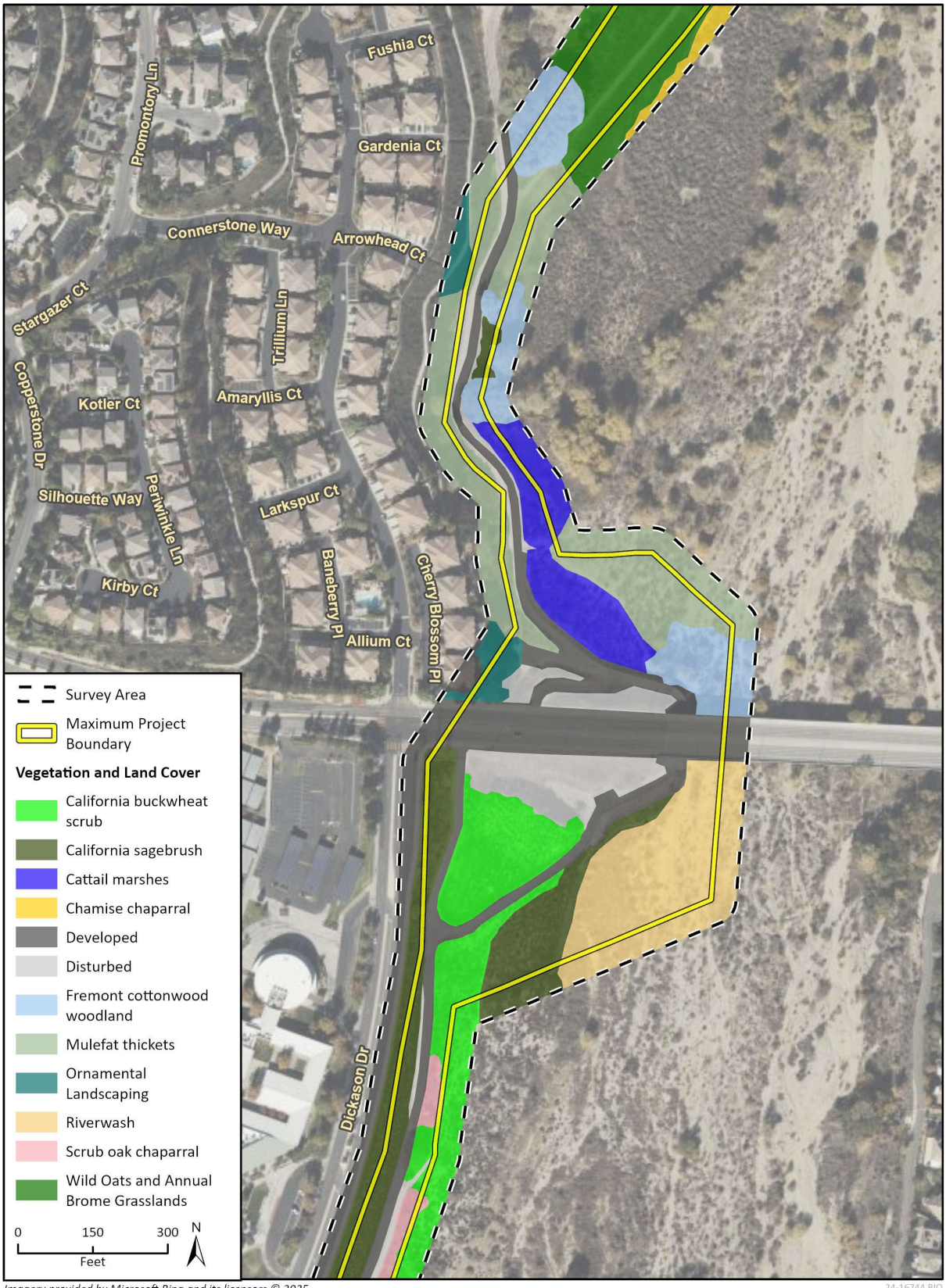
Figure 7 Vegetation Communities and Land Cover Types (3 of 5)



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Fig X Vegetation and Land Cover

Figure 8 Vegetation Communities and Land Cover Types (4 of 5)



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Fig X Vegetation and Land Cover

Figure 9 Vegetation Communities and Land Cover Types (5 of 5)



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24-16744 BIO
Fig X Vegetation and Land Cover

Vegetation Communities

California Buckwheat Scrub

California buckwheat scrub (*Eriogonum fasciculatum* Shrubland Alliance) is characterized by dominant or codominant California buckwheat (*Eriogonum fasciculatum*) in cismontane stands. California buckwheat scrub is found in upland slopes; intermittently-flooded arroyos, channels, and washes; and rarely-flooded low-gradient deposits. Elevations range from 0 to 3,937 feet (1,199 meters) above mean sea level (amsl). Soils are typically course, well-drained, and moderately acidic to slightly saline. California buckwheat contributes to at least 50 percent relative cover in the shrub layer (Sawyer et al. 2009). This community is ranked G5S5 and is not considered sensitive (CDFW 2025c).

California buckwheat scrub is present in the northeastern portion of the Survey Area, including areas within the 50-ft buffer, below Deco Drive, and along the eastern edge of the project site. This vegetation community lacks a subdominant shrub layer and tree canopy. The herbaceous layer is dominated by yellow star-thistle (*Centaurea solstitialis*), summer mustard (*Hirschfeldia incana*), and annual grasses (*Bromus* spp.), with redstem filaree (*Erodium cicutarium*) occurring as a subdominant species.

Disturbed California Buckwheat Scrub

Disturbed California Buckwheat Scrub (*Eriogonum fasciculatum* Shrubland Alliance) is a degraded version of the native shrubland community, where California buckwheat remains present but ecological integrity is compromised. In this disturbed state, California buckwheat still dominates the shrub layer, but with reduced vigor and patchy distribution. The shrub layer lacks structural complexity, with no evident subdominant shrubs. The herbaceous layer is heavily invaded, dominated by non-native species, such as yellow star-thistle and annual grasses, which outcompete native forbs and grasses. The tree layer is absent, and native recruitment is minimal. Despite its degraded state, this community remains classified as G5S5 and is not currently considered sensitive (CDFW 2025c).

This disturbed community was observed in the northeastern portion of the Survey Area, largely within the eastern 50-foot buffer north of Deco Drive and parts of the eastern buffer of the project site. While still recognizable as part of the California buckwheat scrub alliance, the dominance of invasive species and lack of native understory indicate a significant departure from reference conditions.

California Sagebrush Scrub

California sagebrush scrub (*Artemisia californica* Shrubland Alliance) is typically found along steep upland slopes that are rarely flooded, and low-gradient deposits along streams, between sea level and 3,940 feet (1,200 meters) in elevation (Sawyer et al. 2009). Soils are typically alluvial or colluvial derived. California sagebrush (*Artemisia californica*) contributes to at least 60 percent relative cover in the shrub layer. This vegetation community is ranked G5S5 and is not considered sensitive (CDFW 2025c).

Within the Survey Area, California sagebrush scrub primarily occurs south of Decoro Drive within the 50-foot buffer area. California sagebrush dominates the shrub layer, with California buckwheat and deerweed (*Acmispon glaber*) present as subdominant species. The herbaceous layer is dominated

by non-native annual grasses and forbs, including ripgut brome (*Bromus diandrus*), common wild oat (*Avena fatua*), and summer mustard.

Scrub Oak Chaparral

Scrub Oak Chaparral (*Quercus berberidifolia–Heteromeles arbutifolia* Shrubland Alliance) is a native, structurally complex shrubland community characterized by a dominance of scrub oak and associated chaparral species. This vegetation alliance typically occurs on rocky slopes, ridgelines, and foothill terraces within Mediterranean-type climates, particularly in southern California. Soils are generally shallow, well-drained, and derived from sandstone, granite, or volcanic substrates. The community supports a dense, multi-layered shrub canopy, with scrub oak (*Quercus berberidifolia*) often forming the dominant or codominant species alongside toyon (*Heteromeles arbutifolia*). This vegetation community is ranked G4S4 and is not considered sensitive (CDFW 2025c).

Within the Survey Area, this community is found in one section along the east side of the bike path between Decoro Drive and Newhall Ranch Road. The shrub layer is dominated by scrub oak, with subdominant species including toyon, chamise (*Adenostoma fasciculatum*), and California buckwheat (*Eriogonum fasciculatum*). The herbaceous layer is sparse and includes a mix of native and non-native grasses and forbs, such as red brome (*Bromus madritensis*), wild oat (*Avena fatua*), and filaree (*Erodium spp.*). Portions of this community appear to be naturally regenerating following past disturbance.

Coyote Brush Scrub

Coyote brush scrub (*Baccharis pilularis* Shrubland Alliance) is typically found in coastal bluffs, terraces, stabilized dunes of coastal bars, spits along the coastline, river mouths, stream sides, open exposed slopes, ridges, and gaps in forest stands. Soils are variable and generally sandy to relatively heavy clay. Coyote brush (*Baccharis pilularis*) contributes to at least 50 percent relative cover in the shrub layer, and the shrub layer is less than 3 meters, while the herbaceous layer is variable. Coyote brush scrub is ranked G5S5 and is not considered a CDFW sensitive natural community (CDFW 2025c).

Within the Survey Area, coyote brush scrub is found in two patches along the bike path north of Well W9. Coyote brush is dominant in the shrub layer with lemonade berry, California buckwheat and chaparral yucca (*Hesperoyucca whipplei*). The vegetation community's herbaceous layer is dominated by ripgut brome.

Chamise Chaparral

Chamise chaparral (*Adenostoma fasciculatum – Eriogonum fasciculatum* Shrubland Alliance) occurs across cismontane California in a variety of topographic settings from coastal bluffs to steep, lower montane slope. Chamise is the dominant species, contributing to at least 60 percent relative cover in the shrub layer. This community is adapted to frequent wildfire cycles, with chamise exhibiting strong resprouting capabilities. The herbaceous layer is typically sparse due to the dense canopy and low light availability, but may include native forbs and grasses in canopy gaps. In some areas, non-native annual grasses and forbs such as ripgut brome and redstem filaree may be present, particularly in disturbed patches. This vegetation community is ranked G5S5 and is not considered sensitive (CDFW 2025c).

Within the Survey Area, chamise chaparral is found in a small section of the southeastern portion of the project site, surrounding Well W9 and extending south into the eastern 50-foot buffer area.

Chamise is dominant within the shrub layer, with California buckwheat and blue elderberry (*Sambucus mexicana*) as subdominant species.

Disturbed Chamise Chaparral

Disturbed chamise chaparral (*Adenostoma fasciculatum – Eriogonum fasciculatum* Shrubland Alliance) is a degraded version of the native shrubland community, where chamise remains present but ecological integrity is compromised. In this disturbed state, chamise still dominates the shrub layer, but with reduced vigor and patchy distribution. The shrub layer lacks structural complexity, with no evident subdominant shrubs. The herbaceous layer is heavily invaded, dominated by non-native species, such as yellow star-thistle and annual grasses, which outcompete native forbs and grasses. The tree layer is absent, and native recruitment is minimal. Despite its degraded state, this community remains classified as G5S5 and is not currently considered sensitive (CDFW 2025c).

Disturbed chamise chaparral occurs in a small area within the southeastern portion of the project site, adjacent to intact chamise chapparal and surrounding Well W9.

Cattail Marshes

Cattail Marsh (*Typha latifolia* Herbaceous Alliance) is typically found in semi-permanently flooded freshwater or brackish marshes, often occurring in low-lying basins, drainage channels, and along the margins of ponds and slow-moving streams. This community occurs from sea level to approximately 1,150 feet (351 meters) amsl (Sawyer et al. 2009). Soils are typically clayey or silty, with high moisture retention and organic content. The herbaceous layer is dense and nearly monospecific in some areas, with limited presence of other emergent wetland species. This vegetation community is ranked G5S5 and is not considered sensitive (CDFW 2025c).

Cattail marsh is located immediately east of the bike path, north of Decoro Drive, within what appears to be a wetland area. The herbaceous layer is dominated by common cattail (*Typha latifolia*) with mulefat (*Baccharis salicifolia*) present as a subdominant species.

Fremont Cottonwood Woodland

Fremont cottonwood woodland (*Populus fremontii* Woodland Alliance) is characterized by dominant Fremont cottonwood in the tree canopy with willows (*Salix* spp.) and other riparian trees such as western sycamore (*Platanus racemosa*) present as codominant or subdominant. Fremont cottonwood accounts for approximately 10 to 80 percent absolute cover and greater than 50 percent relative cover in the tree layer. The tree canopy ranges from continuous to open, the shrub layer intermittent to open, and the herbaceous layer is variable (Sawyer et al. 2009). This alliance can be found on floodplains; along low-gradient rivers, perennial or seasonally intermittent streams, and springs; and in canyons, alluvial fans, and valleys with a dependable subsurface water supply that varies considerably during the year. Fremont cottonwood woodland is designated as G4S3 by CDFW and is a sensitive natural community (CDFW 2025c).

Small patches of Fremont cottonwood woodland are scattered throughout the Survey Area, primarily within the 50-foot buffer zone. No surface water or evidence of surface-level hydrology were observed during the field survey, suggesting that the dominant Fremont cottonwood trees likely rely on consistent subsurface water resources. The shrub layer is dominated by California sagebrush and California buckwheat, with blue elderberry present as subdominant.

Red Willow Riparian Woodland

Red willow riparian woodland (*Salix laevigata* Woodland Alliance) is characterized by dominant red willow (*Salix laevigata*) in the tree canopy with willows and other riparian trees such as Fremont cottonwood present as codominant or subdominant. Red willow accounts for more than 50 percent relative cover in the tree layer. The tree canopy ranges from continuous to open, the shrub layer intermittent to open, and the herbaceous layer is variable (Sawyer et al. 2009). This alliance can be found on terraces along large rivers, canyons, along floodplains of streams, seeps, springs, ditches, floodplains, lake edges, and low-gradient depositions. Elevations range between 0 to 6,562 feet (2,000 meters) amsl. Red willow riparian woodland is designated as GNRS3 by CDFW and is a sensitive natural community (CDFW 2025c).

Within the northeastern portion of the Survey Area, a small patch of red willow riparian woodland is present within the project site and survey buffer. Red willow dominates the tree layer, while narrowleaf willow (*Salix exigua*) is the primary species in the shrub layer.

Mulefat Thickets

Mulefat thickets (*Baccharis salicifolia* Shrubland Alliance) are characterized by a moderately open shrub layer, dominated by mulefat. Mulefat thickets are typically found in canyon bottoms, floodplains, irrigation ditches, lake margins, and stream channels. Soils are mixed alluvium (Sawyer et al. 2009). This vegetation alliance is ranked G4S4 and is not considered sensitive (CDFW 2025c).

Within the Survey Area, this community was observed in several sections along the bike path within portions of the project site and the 50-foot buffer. Other commonly encountered shrub species include narrowleaf willow.

Tamarisk Thickets

Tamarisk thickets (*Tamarix spp*. Semi-Natural Alliance) is characterized by dominant saltcedar (*Tamarix ramosissima*) or other tamarisk (*Tamarix* spp.) in the shrub or low tree layer. Emergent native shrubs or trees may be present at low cover, including Fremont cottonwood or willows (*Salix* spp.). Tamarisk has at least three percent absolute cover or 60 percent relative cover in the shrub or low tree layer. This alliance can be found between 246 and 2,625 feet amsl (Sawyer et al. 2009). This vegetation community is ranked GNASNA due to the dominance of non-native species and is not considered sensitive (CDFW 2025c).

Within the Survey Area, this vegetation community was observed adjacent to Well W9 on the western side of the existing facility. Saltcedar is dominant in the shrub layer, with non-native grasses present in the herbaceous layer.

Wild Oat and Annual Brome Grassland

Wild oat and annual brome grasslands (*Avena* spp. – *Bromus* spp. Herbaceous Semi-Natural Alliance) can be found in a wide variety of topographies and soil settings between 0 to 2,200 meters in elevation. This vegetation community is ranked GNASNA and is not considered sensitive (CDFW 2025c).

Wild oat and annual brome grasslands are primarily located near Well W9. The alliance is somewhat disturbed in this area where the vegetation is subject to regular mowing and weed abatement for the pedestrian trail and existing unpaved access road. Common wild oat and ripgut brome dominate this alliance, with summer mustard interspersed throughout the herbaceous layer.

Land Cover Types

Developed

Developed areas consist of buildings, other infrastructure, and paved areas with little to no vegetation (e.g., concrete outfall structure, paved roads, the bike path, and buildings). Within the Survey Area, this land cover type primarily consists of the bike path, roads, and residential development.

Disturbed

Ruderal vegetation occurs in areas subject to recent or ongoing surface soil disturbance. These disturbed areas are typically characterized by a high proportion of bare ground and are dominated by non-native plant species. Due to low species diversity and the prevalence of invasive weeds, this land cover type has low habitat value and does not correspond to a defined alliance in MCV2 (Sawyer et al. 2009). Within the Survey Area, this land cover type primarily consists of bare, compacted access paths to Well W9 and areas with little vegetation or invasive species adjacent to the bike path and other development.

Ornamental Landscaping

Ornamental landscaping includes a variety of landscaped, usually non-native plant species. It is typically located adjacent to developed areas, is not a natural community defined in MCV2 (Sawyer et al. 2009), and is not classified as sensitive by CDFW (CDFW 2025c).

Ornamental landscaping occurs on the eastern edge of the developed areas in the western portion of the Survey Area. Various low-lying shrubs and tree species occur in this land cover type in the Survey Area.

Riverwash

Riverwash occurs in the beds of San Francisquito Creek and consists of sandy soil with little to no vegetation present. Riverwash is a naturally dynamic landform and may shift and change position depending on flood volumes and regularity. This land cover type encompasses the western bank of San Francisquito Creek where it occurs in the Survey Area.

3.2 General Wildlife

A total of 20 wildlife species were documented during the field reconnaissance survey, including commonly observed species such as California scrub-jay (*Aphelocoma californica*), common raven (*Corvus corax*), and American crow (*Corvus brachyrhynchos*), among others. A full list of observed species is provided in Appendix C. These species are expected to utilize the Survey Area for foraging, nesting, and/or shelter. In contrast, the developed or disturbed land cover types are unlikely to support wildlife use, as they lack vegetation and natural soil substrate necessary for these activities. However, the Survey Area contains a variety of potential nesting habitats for common bird species and raptors, including several mature trees as well as other features such as scrub vegetation and other natural cover.

4 Sensitive Biological Resources

This section discusses special status species and sensitive biological resources observed on the project site, and evaluates the potential for the project site to support additional sensitive biological resources. Assessments for the potential occurrence of special status species are based upon known ranges, habitat preferences for the species, species occurrence records from the CNDDB and other sources, species occurrence records from other sites in the vicinity of the survey area, previous reports for the project site, and the results of surveys of the project site. The potential for each special status species to occur in the Survey Area was evaluated according to the following criteria:

- **Not Expected.** Habitat on and adjacent to the site is clearly unsuitable for the species requirements (foraging, breeding, cover, substrate, elevation, hydrology, plant community, site history, disturbance regime), and species would have been identifiable on the site if present (e.g., oak trees). Protocol surveys (if conducted) did not detect species.
- **Low Potential.** Few of the habitat components (foraging, breeding, cover, substrate, elevation, hydrology, plant community, site history, disturbance regime) meeting the species requirements are present, and/or the majority of habitat on and adjacent to the site is unsuitable or of very poor quality. The species is not likely to be found on the site. Protocol surveys (if conducted) did not detect species.
- **Moderate Potential.** Some of the habitat components (foraging, breeding, cover, substrate, elevation, hydrology, plant community, site history, disturbance regime) meeting the species requirements are present, and/or only some of the habitat on or adjacent to the site is unsuitable. The species has a moderate probability of being found on the site.
- **High Potential.** All the habitat components (foraging, breeding, cover, substrate, elevation, hydrology, plant community, site history, disturbance regime) meeting the species requirements are present and/or most of the habitat on or adjacent to the site is highly suitable. The species has a high probability of being found on the site.
- **Present.** Species is observed on the site or has been recorded (e.g., CNDDB, other reports) on the site recently (within the last 5 years).

4.1 Special Status Species

Special-status species are those plants and animals listed, proposed for listing, or candidates for listing as Threatened or Endangered by USFWS under the ESA; those listed or candidates for listing as Rare, Threatened, or Endangered by CDFW under the CESA or Native Plant Protection Act; animals designated as “Fully Protected” by the CFGC; animals listed as “Watch List” or “Species of Special Concern” (SSC) by CDFW; and CDFW Special Plants, specifically those with California Rare Plant Ranks (CRPR) of 1B, 2B, 3, and 4 in the CNPS’s Inventory of Rare and Endangered Vascular Plants of California (CNPS 2025).

Local, state, and federal agencies regulate special-status species and may require an assessment of their presence or potential presence to be conducted onsite prior to the approval of proposed development on a property. A list of special-status plant and wildlife species with potential to occur on site was developed based on a review of a nine-quadrangle search of the CNDDB (CDFW 2025b) and the CNPS online Inventory of Rare and Endangered Vascular Plants of California (CNPS 2025). A five-mile radius was used to further refine the evaluation of species’ potential to occur based on the

surrounding urban land uses and significant change in habitat types outside of the project site vicinity (e.g., mountain and desert habitats that are not relevant to the project site). Assessments for the potential occurrence of special-status species are based on known ranges, habitat preferences for the species, species occurrence records from the CNDDB, and species occurrence records from other sites in the vicinity of the Survey Area.

Queries of the CNDBB and CNPS online Inventory of Rare and Endangered Vascular Plants of California provided records for 34 special-status plant species and 45 special-status wildlife species (Appendix D).

4.1.1 Special Status Plant Species

Rincon evaluated the potential for 34 special-status plant species tracked by CNDDB and CNPS to occur within the Survey Area. The assessment is based on the presence of suitable habitat as identified during the reconnaissance survey and existing knowledge of species occurrences and distributions in the region. Species that are not expected or have a low potential to occur in the Survey Aea are omitted from further discussion based on incompatible habitat conditions (e.g., vegetation assemblage, soils, topography, hydrology, and prior disturbances), or the absence of observations of readily-identifiable species (e.g., perennial herbs, shrubs, and/or trees) during the field reconnaissance survey (see Appendix D). No special-status plant species were detected within the Survey Area during the reconnaissance survey; however, a focused rare plant survey was not conducted.

4.1.2 Special Status Wildlife Species

Rincon evaluated the potential for 45 special-status wildlife species, as tracked by the CNDDB and CNPS, to occur within the Survey Area. This assessment was based on the presence of suitable habitat observed during the field survey, as well as existing data on species distributions and regional occurrences. Of the species evaluated, the coastal whiptail (*Aspidoscelis tigris stejnegeri*, California CDFW Species of Special Concern [SSC]) and coast horned lizard (*Phrynosoma blainvillii*, SSC) were determined to have a high potential to occur within the Survey Area. Additionally, San Diego desert woodrat (*Neotoma lepida intermedia*, SSC), California legless lizard (*Anniella* spp., SSC), coastal California gnatcatcher *(Polioptila californica californica*, Federally Threatened [FT]), and least Bell's vireo (*Vireo bellii pusillus*, Federally Endangered [FE], State Endangered [SE]) were assessed as having a moderate potential to occur.

Species with a low potential to occur are omitted from further discussion because there are limited habitat components meeting the species requirements and/or the majority of habitat on and adjacent to the site is unsuitable or of very poor quality (see Appendix D).

The remaining 24 special status wildlife species that have been recorded or have the potential to occur within the vicinity (i.e., within a five-mile radius) of the Survey Area are not expected to occur because the Survey Area does not support their required habitat components and/or is not within the known range of the species, and are not further discussed in this report (see Appendix D).

4.1.3 Nesting Birds

While common birds are not designated as special-status species, destruction of their eggs, nests, and nestlings is prohibited by federal and state law. Section 3503.5 of the CFGC specifically protects birds of prey, and their nests and eggs against take, possession, or destruction. Section 3513 of the

CFGC also incorporates restrictions imposed by the federal MBTA with respect to migratory birds (which consist of most native bird species).

Migratory or other common nesting birds have the potential to nest within the Survey Area. California sagebrush scrub, Fremont cottonwood woodland, California buckwheat scrub, coyote brush scrub, red willow riparian woodland, chamise chaparral, coastal sage and island scrub oak chaparral and ornamental trees within the Survey Area have the potential to support nesting birds and raptors, including coastal California gnatcatcher and least bell's vireo. Therefore, construction of the project has the potential to directly (by destroying a nest) or indirectly (through construction noise, dust, and other human disturbances that may cause a nest to fail) impact avian species protected under the CFGC and MBTA.

4.2 Sensitive Natural Communities and Critical Habitat

Plant communities are considered sensitive biological resources if they have limited distributions, have high wildlife value, include sensitive species, or are particularly susceptible to disturbance. CDFW ranks sensitive communities as "threatened" or "very threatened" and keeps records of their occurrences in CNDDB.

Two sensitive plant communities were documented within the Survey Area during the field survey: red willow riparian woodland and Fremont cottonwood woodland, which are located in various sections of the Survey Area, with each of these sensitive plant communities overlapping with sections of the project site.

4.3 Jurisdictional Waters and Wetlands

In accordance with CFGC Section 1602, CDFW takes jurisdiction over lakes and streambeds (including adjacent riparian resources). CDFW regulates wetland areas only to the extent that those wetlands are part of a river, stream, or lake. The Los Angeles Regional Water Quality Control Board (RWQCB) also has jurisdiction over "waters of the State" pursuant to the Porter-Cologne Water Quality Control Act and has responsibility to issue CWA Section 401 Water Quality Certifications (WQC) for proposed discharges of dredged or fill material to waters of the State that are also considered waters of the United States. The United States Army Corps of Engineers (USACE) under CWA Section 404 also takes jurisdiction of waters of the United States.

Although a formal jurisdictional delineation survey was not conducted, several potentially jurisdictional features were identified within the Survey Area. These features include six areas where culverts, a creek outlet, drainages, or riparian areas with standing water were observed. One of these areas consists of a floodplain containing cattail marshes and standing water that likely meets the federal and/or state wetlands definitions. Their approximate locations were mapped during the field reconnaissance survey on April 18, 2025 (Figure 10 - Figure 14). Rincon Biologists also estimated and mapped the top of bank and Ordinary High Water Mark (OHWM) within the portion of San Francisquito Creek where the proposed discharge pipeline would be installed (Figure 12).

Figure 10 Potentially Jurisdictional Features (1 of 5)



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Fig X Potentially Jurisdictional Features

Figure 11 Potentially Jurisdictional Features (2 of 5)



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Fig X Potentially Jurisdictional Features

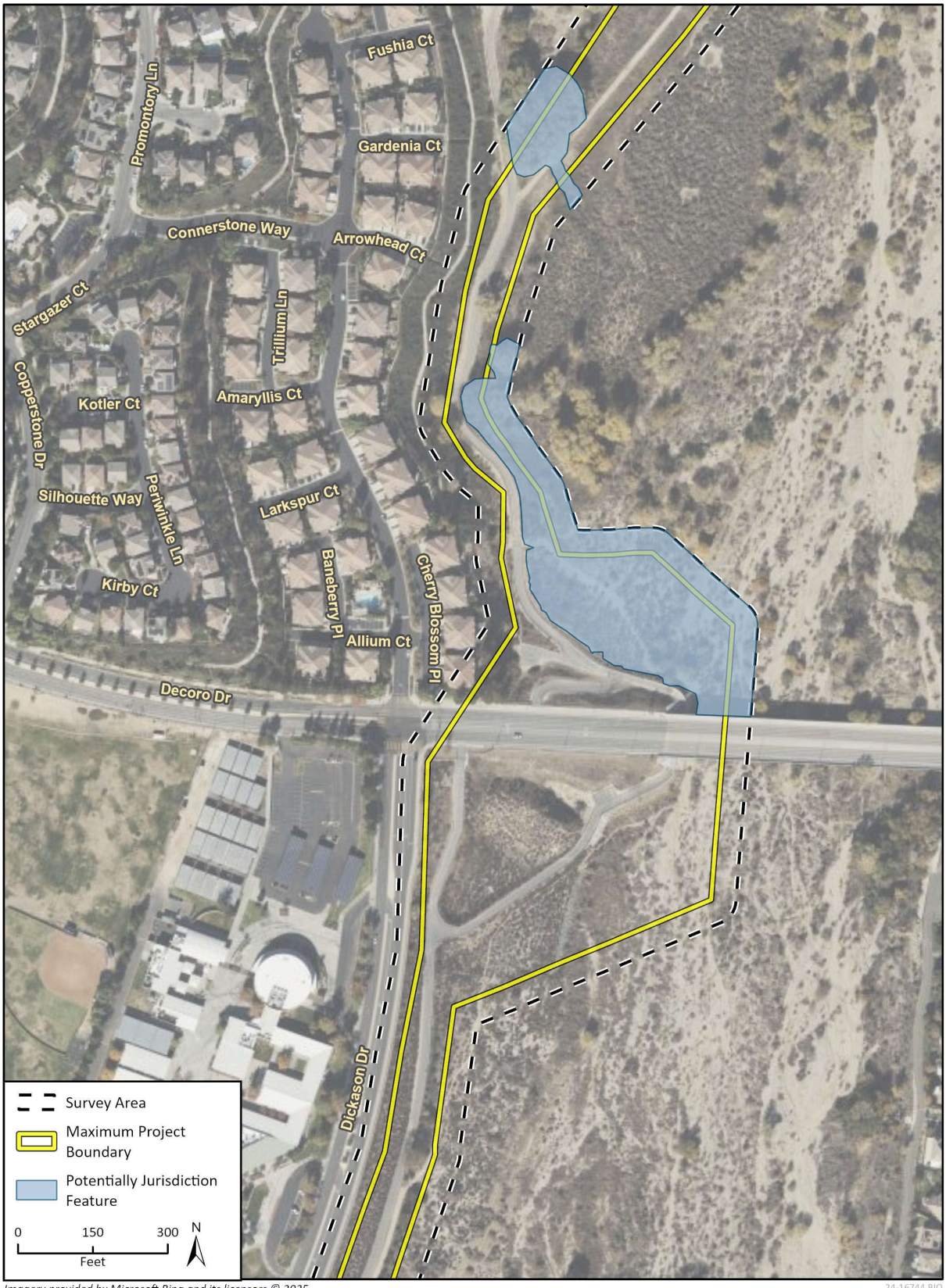
Figure 12 Potentially Jurisdictional Features (3 of 5)



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Fig X Potentially Jurisdictional Features

Figure 13 Potentially Jurisdictional Features (4 of 5)



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Fig X Potentially Jurisdictional Features

Figure 14 Potentially Jurisdictional Features (5 of 5)



4.3.1 San Francisquito Creek

San Francisquito Creek flows from north to south through the eastern portion of the Survey Area. This feature is classified by NWI as an intermittent stream, supporting seasonal flows. The western bank of the creek lies within the eastern project site near Well W9, and the OHWM extends from this area into the adjacent 50-foot buffer area. Within the Survey Area, the creek is characterized by a steep bank drop-off approximately 60 to 75 feet from the current Well W9 location. The creek bed, which spans portions of the project site and the buffer area, consists of sparsely vegetated sandy sediment. No standing or flowing water was observed in San Francisquito Creek at the time of the field survey.

4.4 Wildlife Movement

Wildlife movement corridors, or habitat linkages, are generally defined as connections between habitat patches that allow for physical and genetic exchange between otherwise isolated animal populations. Such linkages may serve a local purpose, such as providing a linkage between foraging and denning areas, or they may be regional in nature. Some habitat linkages may serve as migration corridors, wherein animals periodically move away from an area and then subsequently return. Others may be important as dispersal corridors for young animals. A group of habitat linkages in an area can form a wildlife corridor network.

The habitats in the link do not necessarily need to be the same as the habitats that are being linked. Rather, the link merely needs to contain sufficient cover and forage to allow temporary inhabitation. Typically, habitat linkages are contiguous strips of natural areas, although dense plantings of landscape vegetation can be used by certain disturbance-tolerant species. Depending upon the species using a corridor, specific physical resources (e.g., rock outcroppings, vernal pools, or oak trees) may need to be located in the habitat link at certain intervals to allow slower-moving species to traverse the link. For highly mobile or aerial species, habitat linkages may be discontinuous patches of suitable resources spaced sufficiently close together to permit travel along a route in a short period of time.

No Essential Connectivity Areas are located within the Survey Area (CDFW 2025a). The nearest Essential Connectivity Area is approximately three miles east of the site (CDFW 2025a). However, the San Francisquito Creek bed, located in the eastern portion of the Survey Area, provides seasonal water during the winter months and supports vegetative cover that may facilitate wildlife movement. As such, the creek bed likely serves as a significant north–south movement corridor for larger species such as mule deer and coyote. Additionally, smaller and more mobile species, such as birds, may use the creek bed to connect habitats located north and south of the Survey Area.

4.5 Resources Protected by Local Policies and Ordinances

4.5.1 City of Santa Clarita General Plan

Natural resources within city limits are regulated according to the City's General Plan, which includes policies regarding conservation of biological resources and ecosystems as well as protection of sensitive habitat (including wildlife corridors) and endangered species. The following objectives and

policies related to biological resources are relevant for the proposed project based on its location and/or proposed activities (City of Santa Clarita 2011):

Objective CO 3.1: In review of development plans and projects, encourage conservation of existing natural areas and restoration of damaged natural vegetation to provide for habitat and biodiversity.

- *Policy CO 3.1.1*: On the Land Use Map and through the development review process, concentrate development into previously developed or urban areas to promote infill development and prevent sprawl and habitat loss, to the extent feasible.
- *Policy CO 3.1.2*: Avoid designating or approving new development that will adversely impact wetlands, floodplains, threatened or endangered species and habitat, and water bodies supporting fish or recreational uses, and establish an adequate buffer area as deemed appropriate through site specific review.
- *Policy CO 3.1.3*: On previously undeveloped sites ("greenfields"), identify biological resources and incorporate habitat preservation measures into the site plan, where appropriate. (This policy will generally not apply to urban infill sites, except as otherwise determined by the reviewing agency).
- *Policy CO 3.1.4*: For new development on sites with degraded habitat, include habitat restoration measures as part of the project development plan, where appropriate.
- *Policy CO 3.1.5*: Promote the use of site-appropriate native or adapted plant materials and prohibit use of invasive or noxious plant species in landscape designs.
- *Policy CO 3.1.6*: On development sites, preserve and enhance natural site elements including existing water bodies, soil conditions, ecosystems, trees, vegetation and habitat, to the extent feasible.
- *Policy CO 3.1.7*: Limit the use of turf-grass on development sites and promote the use of native or adapted plantings to promote biodiversity and natural habitat.
- *Policy CO 3.1.8*: On development sites, require tree planting to provide habitat and shade to reduce the heat island effect caused by pavement and buildings.
- *Policy CO 3.1.9*: During construction, ensure preservation of habitat and trees designated to be protected through use of fencing and other means as appropriate, so as to prevent damage by grading, soil compaction, pollution, erosion or other adverse construction impacts.
- *Policy CO 3.1.10*: To the extent feasible, encourage the use of open space to promote biodiversity.
- *Policy CO 3.1.11*: Promote use of pervious materials or porous concrete on sidewalks to allow for planted area infiltration, allow oxygen to reach tree roots (preventing sidewalk lift-up from roots seeking oxygen), and mitigate tree-sidewalk conflicts, in order to maintain a healthy mature urban forest.

Objective CO 3.2: Identify and protect areas which have exceptional biological resource value due to a specific type of vegetation, habitat, ecosystem, or location.

- *Policy CO 3.2.3*: Ensure protection of any endangered or threatened species or habitat, in conformance with state and federal laws.

Objective CO 3.3: Protect significant wildlife corridors from encroachment by development that would hinder or obstruct wildlife movement.

Objective CO 3.5: Maintain, enhance, and manage the urban forest throughout developed portions of the Santa Clarita Valley to provide habitat, reduce energy consumption, and create a more livable environment.

- *Policy CO 3.5.1*: Continue to plant and maintain trees on public lands and within the public right-of-way to provide shade and walkable streets, incorporating measures to ensure that roots have access to oxygen at tree maturity, such as use of porous concrete.
- *Policy CO 3.5.2*: Where appropriate, promote planting of trees that are native or climactically appropriate to the surrounding environment, emphasizing oaks, sycamores, maple, walnut, and other native species in order to enhance habitat, and discouraging the use of introduced species such as eucalyptus, pepper trees, and palms except as ornamental landscape features.

Objective CO 3.6: Minimize impacts of human activity and the built environment on natural plant and wildlife communities.

- *Policy CO 3.6.1*: Minimize light trespass, sky-glow, glare, and other adverse impacts on the nocturnal ecosystem by limiting exterior lighting to the level needed for safety and comfort; reduce unnecessary lighting for landscaping and architectural purposes and encourage reduction of lighting levels during nonbusiness nighttime hours.
- *Policy CO 3.6.2*: Reduce impervious surfaces and provide more natural vegetation to enhance microclimates and provide habitat.

4.5.2 North Valencia Specific Plan

The project site is within the planning area of the City's North Valencia Specific Plan (City of Santa Clarita 1999). However, the North Valencia Specific Plan primarily addresses zoning and land use regulations and does not establish independent biological resource management policies. Nevertheless, all proposed development within the plan boundaries remains subject to the biological resource protection standards of the City of Santa Clarita's General Plan discussed above. Furthermore, according to Government Code Section 53091, building and zoning ordinances of a county or city shall not apply to the location or construction of facilities for the production, generation, storage, treatment, or transmission of water. As such, the project would not be subject to the North Valencia Specific Plan, which establishes additional zoning regulations for the project site.

4.5.3 City of Santa Clarita Oak Tree Preservation Ordinance

According to Government Code Section 53091, building and zoning ordinances of a county or city shall not apply to the location or construction of facilities for the production, generation, storage, treatment, or transmission of water. As such, the project would not be subject to the City's building and zoning ordinances (Santa Clarita Municipal Code Titles 17 and 18), which include the City of Santa Clarita Oak Tree Preservation Ordinance. Nevertheless, SCV Water would voluntarily comply with the City's Oak Tree Preservation Ordinance during implementation of the proposed project; therefore, it is included in this discussion.

The City of Santa Clarita Oak Tree Preservation Ordinance (Santa Clarita Municipal Code Section 17.51.040) protects and preserves oak trees in the city and provides regulatory measures to accomplish this purpose. This policy applies to the removal, pruning, cutting, and/or encroachment into the protected zone of oak trees. The following definitions are provided in the ordinance:

- "Oak tree" means any oak tree of the genus Quercus, including, but not limited to, valley oak (Quercus lobata), California live oak (*Quercus agrifolia*), canyon oak (*Quercus chrysolepis*), interior live oak (*Quercus wislizenii*), and scrub oak (*Quercus dumosa*), regardless of size.
- "Heritage oak tree" means any oak tree measuring 108 inches or more in circumference or, in the case of a multiple trunk oak tree, two or more trunks measuring 72 inches each or greater in circumference, measured 4.5 feet above the natural grade surrounding each tree. In addition, the Commission and/or Council may classify any oak tree, regardless of size, as a heritage tree if it is determined by a majority vote thereof that such tree has exceptional historic, aesthetic, and/or environmental qualities of major significance or prominence to the community.
- "Oak tree protected zone" means a specifically defined area totally encompassing an oak tree which work activities are strictly controlled. Using the dripline as a point of reference, the protected zone shall commence at a point five feet outside of the dripline and extend inward to the trunk of the tree. In no case shall the protected zone be less than 15 feet from the trunk of an oak tree.

An Oak Tree Permit is required to cut, prune, remove, relocate, endanger, damage, or encroach into the protected zone of any oak tree on any public or private property within the city. Oak trees that do not exceed six inches in circumference when measured at a point 4.5 feet above the tree's natural grade are exempt from the Oak Tree Permit requirements. Several oak trees including coast live oak, valley oak and Nuttall's scrub oak are located within the Survey Area.

4.5.4 City of Santa Clarita Parkway Trees Ordinance

Native trees are protected under the City's Parkway Trees Ordinance (Santa Clarita Municipal Code Section 13.76). Pursuant to this ordinance, a tree permit must be obtained prior to damaging or removing any public trees within parkways or public areas. Nevertheless, SCV Water would voluntarily comply with the City's Parkway Trees Ordinance during implementation of the proposed project; therefore, it is included in this discussion.

Several native trees (i.e. Fremont cottonwood and red willow) protected by the City's Parkway Tree Ordinance are located within and adjacent to the Survey Area.

4.5.5 Significant Ecological Areas

The City of Santa Clarita's General Plan and Municipal Code (Section 17.38.080) recognize Significant Ecological Areas (SEAs) as important habitat types within the city. SEAs are defined as "ecologically important land and water systems that are valuable as plant or animal communities, often important to the preservation of threatened and endangered species, and conversation of biological diversity in the County" (City of Santa Clarita 2011). Section 17.38.080 of the Municipal Code requires a conformance review for any development proposed within the SEA Overlay Zone. Although no SEAs overlap with the Survey Area, the project is not subject to the City's building and zoning ordinances, including Titles 17 and 18 of the Santa Clarita Municipal Code, pursuant to Government Code Section 53091.

4.6 Habitat Conservation Plans

The Survey Area is not located within any Habitat Conservation Plans, Natural Community Conservation Plans, or other approved local, regional, or state habitat conservation plan area.

5 Impact Analysis and Mitigation Measures

5.1 Special-Status Species

The proposed project would have a significant effect on biological resources if it would:

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

5.1.1 Special Status Plant Species

As discussed in Section 4.1.1 *Special Status Plant Species*, special status plant species are not expected or have a low potential to occur in the Survey Area. Due to the lack of suitable habitat to support special status plant species, impacts to special status plants are not anticipated, and no mitigation is recommended.

5.1.2 Special Status Wildlife Species

Suitable habitat for coastal whiptail, coast horned lizard, California legless lizard, and San Diego desert woodrat occurs within the bed and banks of San Francisquito Creek, as well as California sagebrush scrub, California buckwheat scrub, and chamise chaparral located beyond the creek's top of bank. These vegetation communities occur within the project site and could be directly impacted by project activities. As a result, direct impacts to these special-status species could occur if their habitat is removed or disturbed.

In addition, if individuals are present during construction, indirect impacts may result from increased noise, vibrations, and dust. These disturbances could cause individuals to flush from cover, increasing their vulnerability to predation or vehicle strikes. To minimize these risks, implementation of the following measures is recommended:

- Measure BIO-1: Worker Environmental Awareness Program
- Measure BIO-2: General Best Management Practices
- Measure BIO-3: Pre-Construction Surveys for Special-Status Species

With the implementation of Measures BIO-1, BIO-2, and BIO-3, potential direct and indirect impacts to special-status wildlife species would be reduced to a less-than-significant level.

Within the Survey Area, suitable nesting habitat for coastal California gnatcatcher includes California sagebrush scrub and California buckwheat scrub. Suitable nesting habitat for least Bell's vireo within the Survey Area includes Fremont cottonwood woodland, red willow riparian woodland, and mulefat thickets. Direct impacts to these species could occur if nesting habitat is disturbed or removed during project activities. Additionally, indirect impacts may result from construction-related noise, dust, and human activity, which could lead to nest abandonment or failure. Nesting impacts would be potentially significant. Potential impacts associated with the removal or disturbance of foraging or dispersal habitat would be less than significant, as there is an abundance of suitable foraging and dispersal habitat for both species along the San Francisquito Creek corridor.

Groundwater depletion may also pose a risk to suitable habitat for least Bell's vireo if the riparian habitats function as Groundwater Dependent Ecosystems (GDEs). Therefore, the project would be conducted in accordance with the procedures outlined in Section 9.5.5 of the GSP. Section 9.5.5 outlines actions to take if GDE triggers are exceeded. These include enhanced monitoring, identifying causes, and implementing management actions to protect ecosystems. Conducting the project in accordance with this section helps maintain riparian habitats, which supports species like the Least Bell's vireo by ensuring the groundwater levels needed for their nesting and foraging areas are preserved.

The project site also contains habitat that may support special-status avian species, including resident and migratory passerine and raptors protected under the CFGC and the MBTA. Although no nests were observed during the field reconnaissance, suitable nesting habitat is present in the trees and shrubs within and adjacent to the project site. Raptors may also nest within the taller trees in the area.

As such, the project could result in direct or indirect impacts to nesting avian species. Direct impacts may include mortality from vehicle or equipment strikes and physical disturbance to active nests. Indirect impacts from construction noise, vibrations, and dust could cause birds to flush from cover, increasing their exposure to predators or vehicle strikes. These disturbances may also lead to nest abandonment, egg or chick predation, or egg loss due to vibrations. Additionally, birds may avoid foraging in areas affected by construction activity. If construction occurs during the nesting season (generally January 1 to August 31), the risk of nest failure increases. To minimize these risks, implementation of Measure BIO-4 and BIO-5 is recommended to avoid potential direct and indirect effects to common nesting avian species.

Recommended Avoidance, Minimization, and Mitigation Measures

Implementation of Measures BIO-1 through BIO-5 would avoid or minimize impacts to special-status species and nesting avian species.

BIO-1 Worker Environmental Awareness Program

Prior to initiation of all construction activities (including staging and mobilization), all personnel associated with project construction shall attend a Worker Environmental Awareness Program (WEAP) training, conducted by a qualified biologist, to assist workers in recognizing special status species with the potential to occur within the project site, which include coastal whiptail, coast horned lizard, California legless lizard, San Diego desert woodrat, coastal California gnatcatcher, and least Bell's vireo. The training shall also address protected nesting avian species and sensitive natural communities present within the project site (red willow riparian woodland and Fremont cottonwood woodland).

The specifics of this program shall include identification of special status species and habitats, a description of the regulatory status and general ecological characteristics of special status resources, and a review of the limits of construction and measures required to avoid and minimize impacts to biological resources within the project site. A fact sheet conveying this information shall also be prepared for distribution to all contractors, their employees, and other personnel involved with construction of the project. All employees shall sign a form provided by the trainer documenting they attended the WEAP and understand the information presented. The crew foreman shall be responsible for ensuring crew members adhere to the guidelines and restrictions designed to avoid impacts to special status species. If new construction personnel are added to the

project, the crew foreman shall ensure the new personnel receive the WEAP training before starting work.

BIO-2 General Best Management Practices

Construction personnel shall adhere to the following general best management practice (BMP) requirements:

- Other than construction of the discharge pipeline, no project construction, activities, and equipment staging shall occur within bed and banks of San Francisquito Creek. The contractor shall advise all workers of the intent of the protection measures prior to the start of project construction and activities. No vegetation shall be removed from the channel, bed, or banks of San Francisquito Creek.
- Project-related vehicles shall observe a five-mile-per-hour speed limit within the unpaved limits of construction.
- All open trenches shall be fenced and sloped to prevent entrapment of wildlife species.
- Excavated material from trenching shall be side cast away from San Francisquito Creek to prevent sediment deposition within the river.
- All hollow posts and pipes shall be capped, and metal fence stakes shall be plugged with bolts or other plugging materials to prevent wildlife entrapment and mortality.
- All food-related trash items such as wrappers, cans, bottles, and food scraps generated during project construction shall be disposed of in closed containers only and removed daily from the project site.
- All night-time lighting shall be shielded and downcast to avoid potential impacts to wildlife migration.
- No deliberate feeding of wildlife shall be allowed.
- No pets shall be allowed on the project site.
- No firearms shall be allowed on the project site.
- If vehicle or equipment maintenance is necessary, it shall be performed in the designated staging areas.
- During construction, heavy equipment shall be operated in accordance with standard BMPs. All equipment used on-site shall be properly maintained to avoid leaks of oil, fuel, or residues. The contractor shall prevent oil, petroleum products, or any other pollutants from contaminating the soil or entering a watercourse (dry or otherwise). When vehicles or equipment are stationary, mats or drip pans shall be placed below vehicles to contain fluid leaks. Provisions shall be in place to remediate any accidental spills.
- Materials shall be stored on impervious surfaces or plastic ground covers to prevent any spills or leakage and shall be at least 50 feet from drainage features.
- Construction materials and spoils shall be protected from stormwater runoff using temporary perimeter sediment barriers such as berms, silt fences, fiber rolls, covers, sand/gravel bags, and straw bale barriers, as appropriate.
- While encounters with special-status species are not likely or anticipated, any worker who inadvertently injures or kills a special status species or finds one dead, injured, or entrapped shall immediately report the incident to the construction foreman or biological monitor. The construction foreman or biological monitor shall immediately notify SCV Water. SCV Water shall follow up with written notification to USFWS and/or CDFW within five working days of the

incident. All observations of special status species shall be recorded on CNDDB field sheets and sent to CDFW by SCV Water or a qualified biological monitor.

- Before starting or moving construction vehicles, especially after a few days of non-operation, operators shall inspect under all vehicles to avoid impacts to any wildlife that may have sought refuge under equipment. All large building materials and pieces with crevices where wildlife can potentially hide shall be inspected before moving. If wildlife is detected, a qualified biologist shall move wildlife out of harm's way or temporarily stop activities until the animal leaves the area.

BIO -3 Pre-Construction Surveys for Wildlife

Prior to commencement of ground or vegetation disturbing activities within the delineated work area, a qualified biologist shall conduct two surveys for special-status wildlife species. The first survey shall be conducted no more than 14 days prior to commencement of project activities, and the second survey shall be conducted no more than three days prior to the commencement of project activities. The surveys shall incorporate methods to detect the special-status wildlife species that could potentially occur at the site, including coast horned lizard, coastal whiptail, California legless lizard, and San Diego desert woodrat.

If the aforementioned special-status species are encountered, a qualified biologist shall capture and transfer the individual(s), as feasible, to a suitable habitat location outside of the delineated work area where they would not be harmed by project activities. The biologist shall hold the requisite permits for the capture and handling of the species, if applicable. The biologist shall provide SCV Water with an email summary of the survey results within 24 hours of the survey. Furthermore, the biologist shall submit a letter report to SCV Water within two weeks of the survey, documenting the survey methods, results, and any measures to avoid impacts to special-status species, if observed. Furthermore, during the pre-construction surveys, the qualified biologist should flag all woodrat middens within the Survey Area. Woodrat middens should be avoided to the greatest extent feasible.

BIO -4 Pre-Construction Surveys for Special-Status Avian Species

All vegetation removal, ground disturbance, and construction taking place within portions of the Survey Area where there is suitable habitat for coastal California gnatcatcher and least Bell's vireo shall be conducted from September 16 through February 14, as feasible, which is outside the coastal California gnatcatcher and least Bell's vireo breeding season (approximately February 15 to September 15, combined).

If construction activities must occur during the coastal California gnatcatcher breeding season of February 15 through August 30, and within 500-feet of California sagebrush scrub or California buckwheat scrub habitat, a permitted biologist shall conduct focused surveys in accordance with the USFWS survey protocol for coastal California gnatcatcher prior to the start of construction. From February 15 through June 30, a minimum of six protocol surveys shall be conducted at least one week apart by a permitted biologist. Any survey methodology that deviates from these protocols will be approved by the USFWS prior to initiation of the first survey. Surveys will focus on coastal scrub habitat within the project site and adjacent suitable habitat out to 500-feet. If coastal California gnatcatcher are absent, the project may proceed as planned. If nesting coastal California gnatcatcher are present, a 500-foot avoidance buffer shall be set around the nest. No construction shall take place within the 500-foot buffer and the buffer shall remain in place until the end of the nesting season or until a qualified biologist has determined the nest is no longer active. If the 500-

foot avoidance buffer is not feasible, SCV Water shall consult with regulatory agencies on additional avoidance/minimization measures to avoid incidental take (e.g., establishment of a reduced avoidance buffer with biological monitoring), or the need for state and/or federal take permits for the species.

If construction must occur within the least Bell's vireo breeding season of March 15 through September 15, and within 500-feet of suitable riparian habitat, a qualified biologist shall conduct focused surveys in accordance with the USFWS survey protocol for least Bell's vireo prior to the start of construction. From April 10 through July 31, at least six protocol surveys shall be conducted at least 10 days apart by a qualified biologist. Surveys will focus on suitable riparian habitat within the project site and adjacent suitable habitat out to 500-feet. If least Bell's vireo are absent, the project may proceed as planned. If breeding least Bell's vireo are present, the biologist shall determine the breeding territory and set a 500-foot avoidance buffer. No construction shall take place within the 500-foot buffer and the buffer shall remain in place until the end of the nesting season or until the qualified biologist has determined the nest is no longer active. If the 500-foot avoidance buffer is not feasible, SCV Water shall consult with regulatory agencies on additional avoidance/minimization measures to avoid incidental take (e.g., establishment of a reduced avoidance buffer with biological monitoring), or the need for state and/or federal take permits for the species.

BIO-5 Protection of Nesting Avian Species

If construction must occur within the avian breeding season (generally January 1 – August 31), unless otherwise noted for special-status species, no more than three days prior to initiation of ground-disturbing activities (including, but not limited to vegetation removal, site preparation, grading, excavation, and trenching) within the project site, a nesting avian pre-construction survey shall be conducted by a qualified biologist within the disturbance footprint plus a 100-foot buffer (300-foot for raptors), where feasible. If the proposed project is phased or construction activities stop for more than one week, a subsequent pre-construction nesting avian survey shall be required within three days prior to each phase of construction.

Pre-construction nesting avian surveys shall be conducted during the time of day when birds and raptors are active and shall factor in sufficient time to perform this survey adequately and completely. A report of the nesting avian survey results, if applicable, shall be submitted to SCV Water for review and approval.

If no nesting avian species are observed during pre-construction surveys, no further actions are necessary. If nests are found, an appropriate avoidance buffer ranging in size from 25 to 50 feet for passerines, and up to 300 feet for raptors depending upon the species and the proposed work activity, shall be determined and demarcated by a qualified biologist with bright orange construction fencing or other suitable material. Active nests shall be monitored at a minimum of once per week until it has been determined the young have fledged the nest. No ground disturbance or vegetation removal shall occur within this buffer until the qualified biologist confirms breeding/nesting has ended, and all the young have fledged.

5.2 Riparian and Sensitive Natural Communities

The proposed project would have a significant effect on biological resources if it would:

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

5.2.1 Riparian and Sensitive Natural Communities

Three riparian vegetation communities—Fremont cottonwood woodland, red willow riparian woodland, and mulefat thickets—occur within the Survey Area. All three communities fall under the jurisdiction of California Fish and Game Code section 1600, which regulates activities that may alter streams or their banks. However, Fremont cottonwood woodland and red willow riparian woodland are additionally recognized by CDFW as sensitive natural communities, affording them an elevated level of ecological concern. These two sensitive communities are present in multiple locations within the Survey Area. Potential direct impacts to these communities may include permanent or temporary habitat removal or disturbance resulting from the construction of new infrastructure or the expansion of the access road. Table 2 summarizes the potential impact acreages to riparian and sensitive natural communities.

Table 2 Riparian and Sensitive Natural Communities Impacts

Natural Community	Acreage within Survey Area	Acreage of Potential Project Impacts
Riparian and Sensitive Natural Community		
Fremont cottonwood woodland	1.61	0.93
Red willow riparian woodland	0.21	0.09
Riparian Vegetation		
Mulefat Thickets	3.14	0.77
Total	**4.96**	**1.79**

The project has the potential to indirectly impact riparian and sensitive vegetation communities as a result of groundwater extraction via the rehabilitated Wells W9 and W10. The Fremont cottonwood woodland, red willow riparian woodland, and mulefat thickets vegetation communities located within the Survey Area are identified as potential groundwater dependent ecosystems GDE (SCV GSA 2022). Therefore, the project would be conducted in accordance with the procedures outlined in Section 9.5.5 of the GSP. Groundwater pumping from Wells W9 and W10 would be consistent with historical pumping rates and would not exceed the pumping quantities provided in the groundwater level simulations used in the GSP. Furthermore, SCV Water would operate these two wells in conformance with the monitoring and management actions of the GSP such that groundwater levels would not be lowered beyond the criteria established by the GSP for depletion of interconnected surface waters and undesirable results to groundwater-dependent ecosystems, thereby avoiding indirect impacts to potential groundwater-dependent resources. Therefore, potential impacts to groundwater dependent ecosystems would be less than significant, and no further mitigation is recommended.

Recommenced Avoidance, Minimization, and Mitigation Measures

Implementation of Measures BIO-1, BIO-2, BIO-6, and BIO-7 would reduce potentially significant impacts to riparian habitat and sensitive natural communities to less-than-significant levels.

BIO-6 Riparian Habitat and Sensitive Natural Communities Protection

Riparian habitat and sensitive natural communities (i.e., Fremont cottonwood woodland, red willow riparian woodland, and mulefat thickets) found within the final project limits, shall be avoided to the extent feasible. At a minimum, SCV Water shall implement the following measures to avoid and minimize impacts to riparian vegetation or sensitive natural communities, where feasible.

- Protect sensitive habitat areas from harmful exposure to light. If a project component is within or adjacent to sensitive habitat areas or habitat for sensitive species, and lighting is proposed, then the project component will be designed to protect such areas from harmful exposure to light by shielding light sources, redirecting light sources, or using low intensity lighting.
- Delineate sensitive habitat areas. Sensitive habitat areas to be avoided, including appropriate buffers (determined by a qualified biologist), will be flagged by a qualified biologist prior to the onset of construction activities. Where indicated by the biologist, these areas will be fenced or otherwise protected from direct and indirect impacts. All such areas to be avoided with be clearly marked on construction plans and designated as “no construction” zones.
- Slope stabilization. Where construction will occur on bare soil or on slopes, the contractor shall stabilize exposed soil/slopes immediately upon completion of construction activities. On highly erodible soils/slopes, the contractor shall use a non-vegetative material that binds the soil initially and breaks down within a few years. If more intensive erosion control treatments are needed, geotextile mats, excelsior blankets, or other soil stabilization products shall be used.
- Install signage and fencing, vegetation, or other natural barriers to prevent impacts on adjacent areas during operation. Fencing, vegetation, or other natural barriers will be constructed to prevent impacts on sensitive habitat areas adjacent to the Facilities during operation. Signs will be erected in appropriate locations to inform users of the need to stay within designated bike paths, lanes, routes, or boulevards.
- If avoidance of riparian habitat or sensitive natural communities is not feasible, Mitigation Measure BIO-7 shall apply.

BIO-7 Compensatory Mitigation

If riparian habitat, sensitive natural communities, and/or state or federally protected wetlands and waters are disturbed, SCV Water shall compensate for the disturbance to ensure no net loss of habitat functions and values. Compensatory mitigation for permanent impacts can be accomplished either through purchase of credits through an approved Mitigation Bank or through SCV Water sponsored mitigation (e.g., on-site restoration). The compensation shall be at a minimum ratio of 1 acre restored, created, and/or preserved for every 1 acre permanently disturbed. If on-site restoration would occur, SCV Water shall develop and implement a Habitat Revegetation, Restoration, and Monitoring Program that describes how the habitat shall be created and/or restored, and monitored over a minimum period of time. Temporary impacts to these habitats shall be restored onsite, where feasible, at a ratio of 1 acre restored for every 1 acre temporarily impacted, and addressed in the Plan.

In broad terms, the Plan shall at a minimum include:

- A description of the purpose and goals of the restoration
- Identification of success criteria and performance standards
- Methods of site preparation
- Irrigation plan and schedule
- BMPs
- Maintenance and monitoring program
- Adaptive management strategies
- Key interested and responsible parties
- Funding
- Contingencies

5.3 Jurisdictional Waters and Wetlands

The proposed project would have a significant effect on biological resources if it would:

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.*

The project has the potential to result in direct impacts to jurisdictional waters and/or wetlands within the Survey Area. For example, the installation of the approximately 200-foot discharge pipeline from the treatment facility to San Francisquito Creek may result in temporary and/or permanent impacts to San Francisquito Creek. This installation may also include the placement of riprap or other energy-dissipating structures at the pipeline's discharge point, further contributing to habitat impacts. There are other potentially jurisdictional features located within the maximum project boundary; therefore, direct impacts to these features may occur.

To minimize impacts, implementation of Measure BIO-8 is recommended to delineate jurisdictional features within the Survey Area. In addition, Measure BIO-7 is recommended to mitigate for any unavoidable impacts to jurisdictional waters and wetlands resulting from project activities.

If project construction occurs during the rainy season, jurisdictional waters and wetlands may be indirectly impacted after a rain event should stormwater runoff result in effects such as increased turbidity, altered pH, and/or decreased dissolved oxygen levels. Therefore, implementation of the stormwater control BMPs (e.g., berms, silt fences, fiber rolls) described in Measure BIO-2 is recommended to reduce potential indirect impacts to jurisdictional waters and wetlands during construction to a less-than-significant level.

During operation, the project may indirectly affect the hydrology of San Francisquito Creek due to groundwater extraction from Wells W9 and W10. However, the project will be conducted in accordance with the procedures outlined in Section 9.5.5 of the GSP. Section 9.5.5 outlines actions to take if GDE triggers are exceeded. These include enhanced monitoring, identifying causes, and implementing management actions to protect ecosystems. Conducting the project in accordance with this section helps maintain riparian habitats, which supports wildlife species by ensuring the groundwater levels needed for their habitat and foraging areas are preserved.

During project operation, groundwater pumping from Wells W9 and W10 would be consistent with historical pumping rates and would not exceed the pumping quantities provided in the groundwater level simulations used in the GSP, and no further mitigation is recommended.

5.3.1 Recommenced Avoidance, Minimization, and Mitigation Measures

Implementation of Measures BIO-2, BIO-7, and BIO-8 would reduce impacts to jurisdictional waters and wetlands to less-than-significant levels.

BIO-8 Jurisdictional Delineation Survey and Report

Prior to ground disturbance, SCV Water shall retain a qualified biologist to conduct a field delineation within the Survey Area. During the field survey, sample points shall be established to document wetland and non-wetland aquatic resources, using the appropriate agency-approved methodology and data forms. The sample points shall focus on identifying indicators of an OHWM, wetland hydrology, hydric soils, and hydrophytic vegetation. Using this information, a "wetland edge" shall be discerned between the wetland and non-wetland points, and the boundary of the aquatic resources shall be mapped with a sub-meter GPS unit.

The survey shall be conducted in accordance with USACE Wetlands Delineation Manual (1987) and Arid West Regional Supplement to the manual, as well as the latest guidance from the CDFW and Los Angeles RWQCB. This methodology is the acceptable methodology for delineating the boundaries of federal and state jurisdictions.

A delineation report shall be prepared in accordance with the USACE Los Angeles District's 2017 Minimum Standards for Acceptance of Aquatic Resources Delineation Reports and shall be used to support necessary permit applications. The report shall include a discussion of methodologies and results that detail the background information; field observations and data collected; and a summary of findings. The report shall contain narrative descriptions of all aquatic features identified, including jurisdictional resources and their boundaries within the project component's work area. The report shall quantify lengths and acreages of each aquatic feature, provide high-quality figures, site photographs, and completed data forms, and geographic information system (GIS) data.

Jurisdictional wetlands and waters identified in the delineation report shall be avoided wherever feasible. The report shall be used to support any necessary permitting requirements, such as the requirements discussed in Measures BIO-6 and BIO-7. The report shall be submitted to SCV Water for review and approval prior to the issuance of grading permits.

5.4 Wildlife Movement

The proposed project would have a significant effect on biological resources if it would:

d) Interfere substantially with the movement of any resident or migratory fish or wildlife species or with established resident or migratory wildlife corridors, or impede the use of wildlife nursery sites.

San Francisquito Creek may serve as a movement corridor for species such as mule deer and coyote. Pipeline improvements, which will occur parallel to the creek, are not expected to interfere with wildlife movement. Construction areas will be fenced, pipelines will be installed in segments, and any open trenches will be covered with steel plates when not actively under construction. Upon project completion, the pipelines will be buried below the soil surface, further minimizing long-term disruption.

Installation of the discharge pipeline within San Francisquito Creek may include the installation of rip-rap or other energy-dissipating features at the terminus of the discharge pipeline, which could impact wildlife movement in this area. However, animals using the riparian corridor for movement (e.g., bobcats, raccoons, reptiles) would still have access along the main creek channel and the eastern creek banks, as the structure would not form a physical barrier across their path. The footprint for the energy-dissipating structure would likely be small enough so that animals could still utilize the western bank as well. Therefore, direct impacts to terrestrial wildlife movement are not anticipated as part of the proposed discharge pipeline installation. If the discharge structure does not extend into the active channel or alter flow regimes significantly, terrestrial wildlife should still be able to move freely along the creek and will not be directly impacted.

Potential indirect impacts to wildlife movement could result from construction lighting, which may deter nocturnal wildlife from using the corridor. To reduce this impact, implementation of Measure BIO-2, which includes requirements for all lighting to be shielded and directed downward, is recommended. With implementation of Measure BIO-2, indirect impacts to wildlife movement would be reduced to a less-than-significant level.

5.5 Resources Protected by Local Policies and Ordinances

The proposed project would have a significant effect on biological resources if it would:

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

The project is subject to consideration of local plans, policies, and ordinances related to biological resources, including those outlined in the City of Santa Clarita's General Plan and Municipal Code. The following sections evaluate the project's consistency with applicable local regulations and voluntary compliance measures relevant to habitat conservation, tree protection, and land use planning.

5.5.1 City of Santa Clarita General Plan

The City's General Plan contains objectives and policies for biological resources that are relevant to the project given its location and/or proposed activities. As identified above, these objectives and policies focus on conservation of existing natural areas; restoration of damaged natural vegetation; protection of wetlands, oak trees and other indigenous woodlands and endangered or threatened species and habitat; and protection of biological resources in SEAs and significant wildlife corridors. Mitigation Measure BIO-1 through BIO-8 will avoid or mitigate potential impacts to special status species and protected habitats to a less-than-significant level.

No SEAs overlap with the Survey Area and the project is not subject to the City's building and zoning ordinances, including Titles 17 and 18 of the Santa Clarita Municipal Code, pursuant to Government Code Section 53091. As such, the project would not conflict with this plan.

5.5.2 North Valencia Specific Plan

Pursuant to Government Code Section 53091, city and county building and zoning ordinances do not apply to the location or construction of facilities involved in the production, generation, storage, treatment, or transmission of water. Therefore, the proposed project is not subject to the North Valencia Specific Plan—which establishes additional zoning regulations for the area. Therefore, the project would not conflict with the North Valencia Specific Plan or related local policies.

5.5.3 Oak Tree Preservation Ordinance, and Parkway Tree Ordinance

No tree removal is currently proposed as part of the project. However, if the removal of protected oak trees becomes necessary, SCV Water would voluntarily obtain an Oak Tree Removal Permit from the City of Santa Clarita. Similarly, if any trees protected under the Parkway Tree Ordinance require removal, a Parkway Tree Permit would be obtained. With adherence to these regulatory procedures, the project would not result in any significant impacts related to local policies and ordinances protecting biological resources.

5.6 Habitat Conservation Plans

The proposed project would have a significant effect on biological resources if it would:

f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Conservation Community Plan, or other approved local, regional, or state habitat conservation plan.

The Survey Area is not located within any Habitat Conservation Plans, Natural Community Conservation Plans, or other approved local, regional, or state habitat conservation plan area. Therefore, no impact would occur, and no mitigation measures are recommended.

6 Limitations, Assumptions, and Use Reliance

This Biological Resources Assessment has been performed in accordance with professionally accepted biological investigation practices conducted at this time and in this geographic area. The biological investigation is limited by the scope of work performed. Reconnaissance biological surveys for certain taxa may have been conducted as part of this assessment but were not performed during a particular blooming period, nesting period, or particular portion of the season when positive identification would be expected if present, and therefore, cannot be considered definitive. The biological surveys are limited also by the environmental conditions present at the time of the surveys. In addition, general biological (or protocol) surveys do not guarantee that the organisms are not present and will not be discovered in the future within the site. In particular, mobile wildlife species could occupy the site on a transient basis, or re-establish populations in the future. Our field studies were based on current industry practices, which change over time and may not be applicable in the future. No other guarantees or warranties, expressed or implied, are provided. The findings and opinions conveyed in this report are based on findings derived from site reconnaissance, jurisdictional areas, review of CNDDB RareFind5, and specified historical and literature sources. Standard data sources relied upon during the completion of this report, such as the CNDDB, may vary with regard to accuracy and completeness. In particular, the CNDDB is compiled from research and observations reported to CDFW that may or may not have been the result of comprehensive or site-specific field surveys. Although Rincon believes the data sources are reasonably reliable, Rincon cannot and does not guarantee the authenticity or reliability of the data sources it has used. Additionally, pursuant to our contract, the data sources reviewed included only those that are practically reviewable without the need for extraordinary research and analysis.

7 References

California Department of Fish and Wildlife (CDFW). 2018. Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Sensitive Natural Communities. March 20, 2018.

_____. 2025a. California Natural Diversity Database, Rarefind V. 5.2.14 (accessed April 2025).

_____. 2025b. California Natural Diversity Database (CNDDB) Biogeographic Information and Observation System (BIOS). Retrieved from: http://bios.dfg.ca.gov (accessed April 2025).

_____. 2025c. California Sensitive Natural Communities. February 27, 2025. https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=153609&inline. (accessed April 2025).

California Invasive Plant Council (Cal-IPC). 2025. The Cal-IPC Inventory. http://www.cal-ipc.org/plants/inventory/ (accessed April 2025).

California Native Plant Society (CNPS). 2025. Inventory of Rare and Endangered Plants of California (online edition, v8-03 0.45). California Native Plant Society, Sacramento, CA. http://www.rareplants.cnps.org (accessed April 2025).

Google Earth Pro. 2025. Version 7.3.6.9345. Accessed April 2025.

NatureServe. 2025. NatureServe Web Service. http://services.natureserve.org. (April 2025)

Santa Clarita, City of. 1999. North Valencia No. 2 Specific Plan. https://filecenter.santa-clarita.com/CommDev/SpecificPlans/NorthValencia2/Chapter%202%20-%20Project%20Description.pdf (accessed April 2025).

_____. 2011. Santa Clarita General Plan, Conservation and Open Space Element. https://www.codepublishing.com/CA/SantaClarita/html/SantaClaritaGP/SantaClaritaGP.html (accessed April 2025).

Santa Clarita Valley Groundwater Sustainability Agency (SCV GSA). 2022. Santa Clara River Valley East Groundwater Subbasin Groundwater Sustainability Plan. https://scvgsa.org/wp-content/uploads/2022/02/Santa-Clara-River-Valley-East-Groundwater-Subbasin-GSP.pdf (accessed April 2025).

Sawyer, J.O., T. Keeler-Wolf, and J. M. Evens. 2009. A Manual of California Vegetation, 2nd edition. California Native Plant Society, Sacramento, California.

United States Army Corps of Engineers (USACE). 1987. Technical Report Y-97-1. In: *United States Army Corps of Engineers Wetlands Delineation Manual*. United States Army Corps of Engineers Waterways Experiment Station. Vicksburg, Mississippi.

United States Department of Agriculture, Natural Resources Conservation Service (USDA NRCS). 2025a. Web Soil Survey. http://websoilsurvey.sc.egov.usda.gov/App/HomePage.htm (April 2025).

_____. 2025b. Lists of Hydric Soils. National Cooperative Soil Survey, U.S. Department of Agriculture. https://www.nrcs.usda.gov/wps/portal/nrcs/main/soils/use/hydric/ (accessed April 2025).

United States Fish and Wildlife Service (USFWS). 2025a. Critical Habitat Portal. http://criticalhabitat.fws.gov (accessed April 2025).

_____. 2025b. National Wetlands Inventory. http://www.fws.gov/wetlands/ (accessed April 2025).

United States Geological Survey (USGS). 2025. National Hydrography Dataset. https://viewer.nationalmap.gov/advanced-viewer/ (accessed April 2025).

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Appendix A

Regulatory Framework

Regulatory Framework

The following is a brief summary of the regulatory context under which biological resources are managed at the federal, state, and local levels. A number of federal and state statutes provide a regulatory structure that guides the protection of biological resources. Agencies with the responsibility for protection of biological resources within the project site include the following:

- U.S. Army Corps of Engineers (wetlands and other waters of the United States)
- U.S. Fish and Wildlife Service (federally listed species and migratory birds)
- Los Angeles Regional Water Quality Control Board (waters of the State)
- California Department Fish and Wildlife (riparian areas, streambeds, and lakes; state-listed species; nesting birds, marine resources)
- City of Santa Clarita General Plan
- Santa Clarita Municipal Code

United States Army Corps of Engineers

The United States Army Corps of Engineers (USACE) is responsible for administering several federal programs related to ensuring the quality and navigability of the nation's waters.

Clean Water Act Section 404

Congress enacted the Clean Water Act (CWA) "to restore and maintain the chemical, physical, and biological integrity of the Nation's waters." The CWA establishes the basic structure for regulating discharges of pollutants into the waters of the United States and regulating quality standards for surface waters. The basis of the CWA was enacted in 1948 and was called the Federal Water Pollution Control Act, but the law was significantly reorganized and expanded in 1972. "Clean Water Act" became the law's common name with amendments in 1972.

Section 404 of the CWA establishes a program to regulate the discharge of dredged or fill material into waters of the United States, including wetlands. Section 404 of the CWA authorizes the Secretary of the Army, acting through the USACE, to issue permits regulating the discharge of dredged or fill materials into the "navigable waters at specified disposal sites." Section 404 requires that a permit be issued before dredged or fill material may be discharged into waters of the United States, unless the activity is exempt from regulation under Section 404 (e.g., certain farming and forestry activities).

Waters of the U.S.

The USACE and US Environmental Protection Agency (USEPA) have undertaken several efforts to modernize their regulations defining "waters of the United States" (e.g., the 2015 Clean Water Rule and 2020 Navigable Waters Protection Rule), but these efforts have been frustrated by legal challenges which have invalidated the updated regulations. As a result of the Supreme Court ruling in *Sackett v. Environmental Protection Agency*, EPA and USACE issued a final rule that amends the "Revised Definition of 'Waters of the United States'" to conform key aspects of the regulatory text to the U.S. Supreme Court's decision (88 Federal Register 61964–61969, September 8, 2023).

Under the "Revised Definition of 'Waters of the United States'; Conforming" rule, the term "waters of the United States" is defined as follows (33 CFR 328.3[a]):

(1) Waters which are:
   (i) Currently used, or were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters which are subject to the ebb and flow of the tide;
   (ii) The territorial seas; or
   (iii) Interstate waters;

(2) Impoundments of waters otherwise defined as waters of the United States under this definition, other than impoundments of waters identified under paragraph (a)(5) of this section;

(3) Tributaries of waters identified in paragraph (a)(1) or (2) of this section that are relatively permanent, standing or continuously flowing bodies of water;

(4) Wetlands adjacent to the following waters:
   (i) Waters identified in paragraph (a)(1) of this section; or
   (ii) Relatively permanent, standing or continuously flowing bodies of water identified in paragraph (a)(2) or (a)(3) of this section and with a continuous surface connection to those waters;

(5) Intrastate lakes and ponds not identified in paragraphs (a)(1) through (4) of this section that are relatively permanent, standing or continuously flowing bodies of water with a continuous surface connection to the waters identified in paragraph (a)(1) or (a)(3) of this section.

In addition, the amended regulations include eight types of excluded waters (33 CFR 328.3[b]) which are not "waters of the United States" even where they otherwise meet the terms of paragraphs (a)(2) through (5) of this section:

(1) Waste treatment systems, including treatment ponds or lagoons, designed to meet the requirements of the Clean Water Act;

(2) Prior converted cropland designated by the Secretary of Agriculture. The exclusion would cease upon a change of use, which means that the area is no longer available for the production of agricultural commodities. Notwithstanding the determination of an area's status as prior converted cropland by any other Federal agency, for the purposes of the Clean Water Act, the final authority regarding Clean Water Act jurisdiction remains with EPA;

(3) Ditches (including roadside ditches) excavated wholly in and draining only dry land and that do not carry a relatively permanent flow of water;

(4) Artificially irrigated areas that would revert to dry land if the irrigation ceased;

(5) Artificial lakes or ponds created by excavating or diking dry land to collect and retain water and which are used exclusively for such purposes as stock watering, irrigation, settling basins, or rice growing;

(6) Artificial reflecting or swimming pools or other small ornamental bodies of water created by excavating or diking dry land to retain water for primarily aesthetic reasons;

(7) Waterfilled depressions created in dry land incidental to construction activity and pits excavated in dry land for the purpose of obtaining fill, sand, or gravel unless and until the construction or excavation operation is abandoned and the resulting body of water meets the definition of waters of the United States; and

(8) Swales and erosional features (e.g., gullies, small washes) characterized by low volume, infrequent, or short duration flow.

The lateral limits of USACE jurisdiction in non-tidal waters is defined by the "ordinary high-water mark" (OHWM) unless adjacent wetlands are present. The OHWM is a line on the shore or edge of a channel established by the fluctuations of water and indicated by physical characteristics such as a clear, natural line impressed upon the bank, shelving, changes in the character of soil, destruction of vegetation, or the presence of debris (33 CFR 328.3(e)). As such, waters are recognized in the field by the presence of a defined watercourse with appropriate physical and topographic features. If wetlands occur within, or adjacent to, waters of the United States, the lateral limits of USACE jurisdiction extend beyond the OHWM to the outer edge of the wetlands (33 CFR 328.4 (c)). The upstream limit of jurisdiction in the absence of adjacent wetlands is the point beyond which the OHWM is no longer perceptible (33 CFR 328.4; see also 51 FR 41217).

Wetlands

The USACE defines wetlands as “those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions” (33 CFR 328.3). Indicators of three wetland parameters (hydric soils, hydrophytic vegetation, and wetlands hydrology), as determined by site investigation, must be present at a site for USACE to classify the site as a wetland (Environmental Laboratory 1987).

Limitations on Jurisdiction based on Sackett v. USEPA Supreme Court Decision

On May 25, 2023, the Supreme Court issued its decision on the petition from the Sacketts, a family in Idaho that was subject to a compliance order from the USEPA for backfilling their lot near Priest Lake, which the USEPA claimed contained federally regulated wetlands. The wetlands in question were adjacent to a ditch that fed a creek that ultimately drained into Priest Lake, a navigable water body. The USEPA asserted that the Sacketts had violated the law by filling the wetlands on their property without a permit. The Court’s decision addressed controversy over whether, and under what conditions, the CWA reaches navigable waters’ tributaries or adjacent wetlands. The Supreme Court’s decision in Sackett provides definitive guidance to the agencies in determining the limits of their Clean Water Act authority. Major tenets of the decision have been incorporated into the agencies’ current regulations through the September 2023 Conforming Rule.

The Court decided:

- “Adjacent wetlands” are WOTUS only if there is a continuous surface connection between the wetland and a navigable or relatively permanent water body, such that it is difficult to determine the boundary between the wetland and the water body. The opinion notes that “temporary interruptions to surface connection may sometimes occur because of phenomena like low tides or dry spells.” The agencies addressed this element by defining the term “adjacent” to mean “having a continuous surface connection” in the Conforming Rule.

- The Significant Nexus Standard, introduced by the Court in prior decisions, is not mentioned in the Clean Water Act and should not be used. The Court determined that the standard applies ecological factors whose use in determining jurisdiction is not supported by the statute. The Conforming Rule removed significant nexus considerations from the definition.
- Although jurisdiction over tributaries was not addressed by the Court, the decision stated that "…the [Clean Water Act's] use of "waters" encompasses only those relatively permanent, standing or continuously flowing bodies of water forming geographical features that are described in ordinary parlance as streams, oceans, rivers, and lakes." The Conforming Rule makes clear that only relatively permanent tributaries qualify as "waters of the United States."

Regional Water Quality Control Board

The State Water Resources Control Board (SWRCB) and nine Regional Water Quality Control Boards (RWQCBs) have jurisdiction over "waters of the State," which are defined as any surface water or groundwater, including saline waters, within the boundaries of the state (California Water Code sec. 13050(e)). These agencies also have responsibilities for administering portions of the CWA.

Clean Water Act Section 401

Section 401 of the CWA requires an applicant requesting a federal license or permit for an activity that may result in any discharge into navigable waters (such as a Section 404 Permit) to provide state certification that the proposed activity will not violate state and federal water quality standards. In California, CWA Section 401 Water Quality Certification (Section 401 Certification) is issued by the RWQCBs and by the SWRCB for multi-region projects. The process begins when an applicant submits an application to the RWQCB and informs the USACE (or the applicable agency from which a license or permit was requested) that an application has been submitted. The USACE will then determine a "reasonable period of time" for the RWQCB to act on the application; this is typically 60 days for routine projects and longer for complex projects but may not exceed one year. When the period has elapsed, if the RWQCB has not either issued or denied the application for Section 401 Certification, the USACE may determine that Certification has been waived and issue the requested permit. If a Section 401 Certification is issued it may include binding conditions, imposed either through the Certification itself or through the requested federal license or permit.

Porter-Cologne Water Quality Control Act

The Porter-Cologne Water Quality Control Act (Porter-Cologne Act) is the principal law governing water quality regulation in California. It establishes a comprehensive program to protect water quality and the beneficial uses of water. The Porter-Cologne Act applies to surface waters, wetlands, and ground water and to both point and nonpoint sources of pollution. Pursuant to the Porter-Cologne Act (California Water Code section 13000 et seq.), the policy of the State is as follows:

- The quality of all the waters of the State shall be protected
- All activities and factors affecting the quality of water shall be regulated to attain the highest water quality within reason
- The State must be prepared to exercise its full power and jurisdiction to protect the quality of water in the State from degradation

The Porter-Cologne Act established nine RWQCBs (based on watershed boundaries) and the SWRCB, which are charged with implementing its provisions and which have primary responsibility for

protecting water quality in California. The SWRCB provides program guidance and oversight, allocates funds, and reviews RWQCB decisions. In addition, the SWRCB allocates rights to the use of surface water. The RWQCBs have primary responsibility for individual permitting, inspection, and enforcement actions within each of nine hydrologic regions. The SWRCB and RWQCBs have numerous nonpoint source related responsibilities, including monitoring and assessment, planning, financial assistance, and management.

Section 13260 of the Porter-Cologne Act requires any person discharging or proposing to discharge waste that could affect the quality of waters of the State to file a Report of Waste Discharge with the appropriate RWQCB. The RWQCB may then authorize the discharge, subject to conditions, by issuing Waste Discharge Requirements (WDRs). While this requirement was historically applied primarily to outfalls and similar point source discharges, the SWRCB's *State Wetland Definition and Procedures for Discharges of Dredged or Fill Material to Waters of the State*, effective May 2020, make it clear that the agency will apply the Porter-Cologne Act's requirements to discharges of dredge and fill material as well. The *Procedures* state that they are to be used in issuing CWA Section 401 Certifications and WDRs, and largely mirror the existing review requirements for CWA Section 404 Permits and Section 401 Certifications, incorporating most elements of the USEPA's *Section 404(b)(1) Guidelines*. Following issuance of the *Procedures*, the SWRCB produced a consolidated application form for dredge/fill discharges that can be used to obtain a CWA Section 401 Water Quality Certification, WDRs, or both.

Non-Wetland Waters of the State

The SWRCB and RWQCBs have not established regulations for field determinations of waters of the state except for wetlands currently. In many cases the RWQCBs interpret the limits of waters of the State to be bounded by the OHWM unless isolated conditions or ephemeral waters are present. However, in the absence of statewide guidance each RWQCB may interpret jurisdictional boundaries within their region and the SWRCB has encouraged applicants to confirm jurisdictional limits with their RWQCB before submitting applications. As determined by the RWQCB, waters of the State may include riparian areas or other locations outside the OHWM, leading to a larger jurisdictional area over a given water body compared to the USACE.

Wetland Waters of the State

Procedures for defining wetland waters of the State pursuant to the SWRCB's *State Wetland Definition and Procedures for Discharges of Dredged or Fill Material to Waters of the State* went into effect May 28, 2020. The SWRCB defines an area as wetland if, under normal circumstances:

(i) the area has continuous or recurrent saturation of the upper substrate caused by groundwater, or shallow surface water, or both;

(ii) the duration of such saturation is sufficient to cause anaerobic conditions in the upper substrate; and

(iii) the area's vegetation is dominated by hydrophytes or the area lacks vegetation.

The SWRCB's *Implementation Guidance for the Wetland Definition and Procedures for Discharges of Dredge and Fill Material to Waters of the State* (2020), states that waters of the U.S. and waters of the State should be delineated using the standard USACE delineation procedures, taking into consideration that the methods shall be modified only to allow for the fact that a lack of vegetation does not preclude an area from meeting the definition of a wetland.

United States Fish and Wildlife Service

The United States Fish and Wildlife Service (USFWS) implements several laws protecting the Nation's fish and wildlife resources, including the Endangered Species Act (ESA; 16 United States Code [USC] Sections 153 et seq.), the Migratory Bird Treaty Act (MBTA; 16 USC Sections 703-711) and the Bald and Golden Eagle Protection Act (16 USC Section 668).

Endangered Species Act

The USFWS and National Marine Fisheries Service (NMFS) share responsibility for implementing the ESA. Generally, the USFWS implements the FESA for terrestrial and freshwater species, while the NMFS implements the FESA for marine and anadromous species. Projects that would result in "take" of any threatened or endangered wildlife species, or a threatened or endangered plant species if occurring on federal land, are required to obtain permits from the USFWS or NMFS through either Section 7 (interagency consultation with a federal nexus) or Section 10 (Habitat Conservation Plan) of the ESA, depending on the involvement by the federal government in funding, authorizing, or carrying out the project. The permitting process is used to determine if a project would jeopardize the continued existence of a listed species and what measures would be required to avoid jeopardizing the species. "Take" under federal definition means to harass, harm (which includes habitat modification), pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct. Proposed or candidate species do not have the full protection of the ESA; however, the USFWS and NMFS advise project applicants that they could be elevated to listed status at any time.

Migratory Bird Treaty Act

The MBTA of 1918 implements four international conservation treaties that the U.S. entered into with Canada in 1916, Mexico in 1936, Japan in 1972, and Russia in 1976. It is intended to ensure the sustainability of populations of all protected migratory bird species. The law has been amended with the signing of each treaty, as well as when any of the treaties were amended, such as with Mexico in 1976 and Canada in 1995. The MBTA prohibits the take (including killing, capturing, selling, trading, and transport) of protected migratory bird species without prior authorization by the USFWS.

The list of migratory bird species protected by the law, in regulations at 50 CFR Part 10.13, is primarily based on bird families and species included in the four international treaties. A migratory bird species is included on the list if it meets one or more of the following criteria:

1. It occurs in the United States or U.S. territories as the result of natural biological or ecological processes and is currently, or was previously listed as, a species or part of a family protected by one of the four international treaties or their amendments.
2. Revised taxonomy results in it being newly split from a species that was previously on the list, and the new species occurs in the United States or U.S. territories as the result of natural biological or ecological processes.
3. New evidence exists for its natural occurrence in the United States or U.S. territories resulting from natural distributional changes and the species occurs in a protected family.

In 2004, the Migratory Bird Treaty Reform Act limited the scope of the MBTA by stating the MBTA applies only to migratory bird species that are native to the United States or U.S. territories, and that a native migratory bird species is one that is present as a result of natural biological or

ecological processes. The MBTRA requires the USFWS to publish a list of all nonnative, human-introduced bird species to which the MBTA does not apply, and an updated list was published in 2020. The 2020 update identifies species belonging to biological families referred to in treaties the MBTA implements but are not protected because their presence in the United States or U.S. territories is solely the result of intentional or unintentional human-assisted introductions.

Bald and Golden Eagle Protection Act

The Bald and Golden Eagle Protection Act prohibits anyone, without a permit issued by the USFWS, from "taking" bald or golden eagles, including their parts (including feathers), nests, or eggs. The Act provides criminal penalties for persons who "take, possess, sell, purchase, barter, offer to sell, purchase or barter, transport, export or import, at any time or any manner, any bald eagle ... [or any golden eagle], alive or dead, or any part, nest, or egg thereof." The Act defines "take" as "pursue, shoot, shoot at, poison, wound, kill, capture, trap, collect, molest or disturb."

"Disturb" means “to agitate or bother a bald or golden eagle to a degree that causes, or is likely to cause, based on the best scientific information available, 1) injury to an eagle, 2) a decrease in its productivity, by substantially interfering with normal breeding, feeding, or sheltering behavior, or 3) nest abandonment, by substantially interfering with normal breeding, feeding, or sheltering behavior."

In addition to immediate impacts, this definition also covers impacts that result from human-induced alterations initiated around a previously used nest site during a time when eagles are not present, if, upon the eagle's return, such alterations agitate or bother an eagle to a degree that interferes with or interrupts normal breeding, feeding, or sheltering habits, and causes injury, death or nest abandonment.

California Department of Fish and Wildlife

The California Department of Fish and Wildlife (CDFW) derives its authority from the Fish and Game Code of California and administers several State laws protecting fish and wildlife resources and the habitats upon which they depend.

California Endangered Species Act

The California Endangered Species Act (CESA) (Fish and Game Code Section 2050 et. seq.) prohibits take of state listed threatened or endangered. Take under CESA is defined as “Hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill” (Fish and Game Code sec. 86). This definition does not prohibit indirect harm by way of habitat modification, except where such harm is the proximate cause of death of a listed species. Where incidental take would occur during construction or other lawful activities, CESA allows the CDFW to issue an Incidental Take Permit upon finding, among other requirements, that impacts to the species have been minimized and fully mitigated. Unlike the federal ESA, CESA’s protections extend to candidate species during the period (typically one year) while the California Fish and Game Commission decides whether the species warrants CESA listing.

Native Plant Protection Act

The CDFW also has authority to administer the Native Plant Protection Act (NPPA) (Fish and Game Code Section 1900 et seq.). The NPPA requires the CDFW to establish criteria for determining if a species, subspecies, or variety of native plant is endangered or rare, and prohibits the take of listed plant species. Effective in 2015, CDFW promulgated regulations (14 CCR 786.9) under the authority of the NPPA, establishing that the CESA's permitting procedures would be applied to plants listed under the NPPA as "Rare." With this change, there is little practical difference for the regulated public between plants listed under CESA and those listed under the NPPA.

Fully Protected Species Laws

The CDFW enforces Sections 3511, 4700, 5050, and 5515 of the Fish and Game Code, which prohibit take of species designated as Fully Protected. The CDFW is not allowed to issue an Incidental Take Permit for Fully Protected species; therefore, impacts to these species must be avoided. The exception is situations where a Natural Community Conservation Plan (NCCP) is in place that authorizes take of the fully protected species.

Avian Protection Laws

California Fish and Game Code sections 3503, 3503.5, and 3513 describe unlawful take, possession, or destruction of native birds, nests, and eggs. Section 3503.5 of the Code protects all birds-of-prey and their eggs and nests against take, possession, or destruction of nests or eggs. Section 3513 makes it a state-level offense to take any bird in violation of the federal Migratory Bird Treaty Act.

Protection of Lakes and Streambeds

California Fish and Game Code section 1602 states that it is unlawful for any person to "substantially divert or obstruct the natural flow of, or substantially change or use any material from the bed, channel, or bank of, any river, stream, or lake" without first notifying the California Department of Fish and Wildlife (CDFW) of that activity. Thereafter, if CDFW determines and informs the entity that the activity will not substantially adversely affect any existing fish or wildlife resources, the entity may commence the activity. If, however, CDFG determines that the activity may substantially adversely affect an existing fish or wildlife resource, the entity may be required to obtain from CDFW a Streambed Alteration Agreement (SAA), which will include reasonable measures necessary to protect the affected resource(s), before the entity may conduct the activity described in the notification. Upon receiving a complete Notification of Lake/Streambed Alteration, CDFW has 60 days to present the entity with a Draft SAA. Upon review of the Draft SAA by the applicant, any problematic terms are negotiated with CDFW and a final SAA is executed.

The CDFW has not defined the term "stream" for the purposes of implementing its regulatory program under Section 1602, and the agency has not promulgated regulations directing how jurisdictional streambeds may be identified, or how their limits should be delineated. However, four relevant sources of information offer insight as to the appropriate limits of CDFW jurisdiction as discussed below.

- **The plain language of Section 1602 of CFGC** establishes the following general concepts:
  - References "river," "stream," and "lake"
  - References "natural flow"
  - References "bed," "bank," and "channel"

- **Applicable court decisions**, in particular *Rutherford v. State of California* (188 Cal App. 3d 1276 (1987), which interpreted Section 1602's use of "stream" to be as defined in common law. The Court indicated that a "stream" is commonly understood to:
  - Have a source and a terminus
  - Have banks and a channel
  - Convey flow at least periodically, but need not flow continuously and may at times appear outwardly dry
  - Represent the depression between the banks worn by the regular and usual flow of the water
  - Include the area between the opposing banks measured from the foot of the banks from the top of the water at its ordinary stage, including intervening sand bars
  - Include the land that is covered by the water in its ordinary low stage
  - Include lands below the OHWM
- **CDFW regulations** defining "stream" for other purposes, including sport fishing (14 CCR 1.72) and streambed alterations associated with cannabis production (14 CCR 722(c)(21)), which indicate that a stream:
  - Flows at least periodically or intermittently
  - Flows through a bed or channel having banks
  - Supports fish or aquatic life
  - Can be dry for a period of time
  - Includes watercourses where surface or subsurface flow supports or has supported riparian vegetation
- **Guidance documents**, *including A Field Guide to Lake and Streambed Alteration Agreements* (CDFG 1994) and *Methods to Describe and Delineate Episodic Stream Processes on Arid Landscapes for Permitting Utility-Scale Solar Power Plants* (Brady and Vyverberg 2013), which suggest the following:
  - A stream may flow perennially or episodically
  - A stream is defined by the course in which water currently flows, or has flowed during the historic hydrologic course regime (approximately the last 200 years)
  - Width of a stream course can reasonably be identified by physical or biological indicators
  - A stream may have one or more channels (single thread vs. compound form)
  - Features such as braided channels, low-flow channels, active channels, banks associated with secondary channels, floodplains, islands, and stream-associated vegetation, are interconnected parts of the watercourse
  - Canals, aqueducts, irrigation ditches, and other means of water conveyance can be considered streams if they support aquatic life, riparian vegetation, or stream-dependent terrestrial wildlife
  - Biologic components of a stream may include aquatic and riparian vegetation, all aquatic wildlife including fish, amphibians, reptiles, invertebrates, and terrestrial species which derive benefits from the stream system
  - The lateral extent of a stream can be measured in different ways depending on the particular situation and the type of fish or wildlife resource at risk

The tenets listed above, among others, are applied to establish the boundaries of streambeds in various environments. Importance of each factor may be weighted based on site-specific considerations and the applicability of the indicators to the streambed at hand.

Local Jurisdiction

City of Santa Clarita General Plan

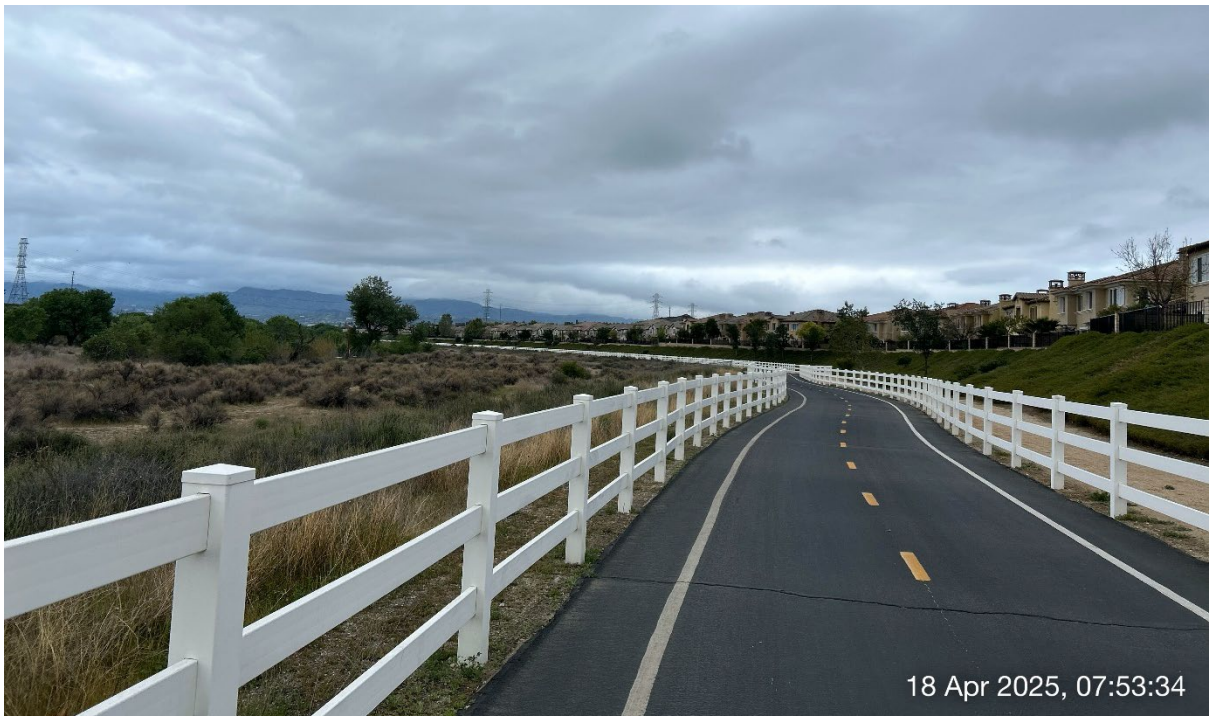
Natural resources within the City of Santa Clarita's (City) limits are regulated according to the City's General Plan (City of Santa Clarita 2011), which includes policies regarding conservation of biological resources and ecosystems as well as protection of sensitive habitat (including wildlife corridors) and endangered species. The City's General Plan includes policies relating to oak trees, protected areas, and Significant Ecological Areas, among others.

Santa Clarita Municipal Code

Natural resources within the City are also regulated by the City's Municipal Code. In particular, the City of Santa Clarita Oak Tree Preservation Ordinance (Santa Clarita Municipal Code Section 17.51.040) protects and preserves oak trees in the City; the City's Parkway Trees Ordinance (Santa Clarita Municipal Code Section 13.76) protects native trees in the City and Santa Clarita Municipal Code Section 17.38.080 protects SEAs within the City.

Appendix B

Site Photographs



Photograph 1. View of the developed bike path with adjacent disturbed areas and ornamental landscaping, facing south (April 18, 2025).



Photograph 2. View disturbed California buckwheat scrub within the northern portion of the Survey Area, facing east (April 18, 2025).



Photograph 3. View of wild oat and annual brome grasslands near Well W9, facing southwest (April 18, 2025).



Photograph 4. View of California sagebrush scrub adjacent to San Francisquito Creek, facing northeast (April 18, 2025).



Photograph 5. View of coyote brush scrub within the Survey Area, facing east (April 18, 2025).



Photograph 6. View of the California buckwheat scrub adjacent to the bike path, facing southwest (April 18, 2025).



Photograph 7. View of mulefat thickets within the Survey Area, facing southwest (April 18, 2025).



Photograph 8. View of tamarisk thickets adjacent to Well W9 within the Survey Area, facing northwest (April 18, 2025).



Photograph 9. View of cattail marshes within a potentially jurisdictional area within the Survey Area, facing northeast (April 18, 2025).



Photograph 10. View of red willow riparian woodland in the northern portion of the Survey Area, facing north (April 18, 2025).



Photograph 11. View of the Fremont cottonwood woodland in the southern portion of the Survey Area, facing southeast (April 18, 2025).



Photograph 12. View of the coastal sage and scrub oak chaparral within the Survey Area (April 18, 2025).



Photograph 13. View of a potentially jurisdictional feature/drainage within the Survey Area on the eastern side of the bike path, facing south (April 18, 2025).



Photograph 14. View of a potentially jurisdictional feature/creek outlet within the Survey Area on the eastern side of the bike path, facing southeast (April 18, 2025).



Photograph 15. View of a potentially jurisdictional feature including culvert, muelfat thickets and Fremont cottonwood woodland, facing northeast (April 18, 2025).



Photograph 16. View potentially jurisdictional floodplain adjacent to San Francisquito Creek within the Survey Area, facing north (April 18, 2025).



Photograph 17. View of surface water in potentially jurisdictional floodplain within the Survey Area, facing north (April 18, 2025).



Photograph 18. View of potentially jurisdictional feature/outlet within the southern portion of the Survey Area, facing east (April 18, 2025).

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Appendix C

Floral and Faunal Compendium

Plant and Wildlife Species Observed Within the Survey Area on April 18, 2025

Scientific Name	Common Name	Status	Native or Introduced
Plants			
Acacia redolens	vanilla-scented wattle		Introduced
Acmispon glaber	deerweed		Native
Artemisia dracunculus	wild tarragon		Native
Artemisia tridentata	California sagebrush		Native
Arundo donax	giant reed	Cal-IPC - High	Introduced
Avena fatua	common wild oat	Cal IPC - Moderate	
Baccharis pilularis	coyote brush		Native
Baccharis salicifolia	mulefat		Native
Brassica nigra	black mustard	Cal IPC - Moderate	Introduced
Bromus diandrus	ripgut brome	Cal-IPC - Moderate	Introduced
Bromus rubens	red brome	Cal-IPC - High	Introduced
Centaurea melitensis	tocalote	Cal IPC - Moderate	Introduced
Centaurea solstitialis	yellow star thistle	Cal-IPC - High	Introduced
Cupressus sempervirens	Italian cypress		Introduced
Cuscuta californica	California dodder		Native
Cynodon dactlyon	bermuda grass	Cal-IPC - Moderate	Introduced
Datura wrightii	sacred datura		Native
Dichelostemma capitatum	blue dicks		Native
Encelia californica	California brittlebush		Native
Encelia farinosa	brittlebush		Native
Ericameria nauseosa	rubber rabbitbrush		Native
Eriodictyon crassifolium	thick-leaved yerba santa		Native
Eriogonum fasciculatum	California buckwheat		Native
Erodium cicutarium	redstem filaree	Cal-IPC - Limited	Introduced
Erythranthe guttata	seep monkeyflower		Native
Euonymus japonicus	Japanese euonymus		Introduced
Festuca myuros	rattail fescue	Cal-IPC - Moderate	Introduced
Hesperoyucca whipplei	chapparal yucca		Native
Heteromeles arbutifolia	toyon		Native
Heterotheca grandiflora	telegraph weed		Native
Hirschfeldia incana	summer mustard	Cal IPC - Moderate	Introduced
Lepidium latifolium	perennial pepperweed	Cal-IPC - High	Introduced
Lobularua maritima	sweet alyssum	Cal-IPC - Limited	Introduced
Lysimachai arvensis	scarlet pimpernel		Introduced
Malosma laurina	Laurel sumac		Native
Marrubium vulgare	white horehound	Cal-IPC - Limited	Introduced
Medicago polymorpha	bur clover	Cal-IPC - Limited	Introduced
Melilotus indicus	yellow sweetclover		Introduced

Scientific Name	Common Name	Status	Native or Introduced
Muhlenbergia rigens	deergrass		Native
Nicotiana glauca	tree tobacco	Cal-IPC - Moderate	Introduced
Phacelia ramosissima	branching phacelia		Native
Platanus racemosa	western sycamore		Native
Populus fremontii	Fremont cottonwood		Native
Pseudognaphalium californicum	Ladies' tobacco		Native
Quercus agrifolia	coast live oak		Native
Rhus integrifolia	lemonade berry		Native
Quercus berberidifolia	Scrub oak		Native
Quercus lobata	valley oak		Native
Salix exigua	narrowleaf willow		Native
Salix laevigata	red willow		Native
Salix lasiolepis	arroyo willow		Native
Salsola tragus	Russian thistle	Cal-IPC - Limited	Introduced
Salvia leucophylla	purple sage		Native
Salvia mellifera	black sage		Native
Sambucus cerulea	blue elderberry		Native
Schinus molle	Peruvian pepper	Cal-IPC - Limited	Introduced
Schismus barbatus	mediterranean grass	Cal-IPC - Limited	Introduced
Senecio flaccidus	shrubby ragwort		Native
Syagrus rommanzoffiana	queen palm	Cal-IPC - Limited	Introduced
Tamarix ramosissima	saltcedar	Cal-IPC High	Introduced
Typha spp.	cattails		Native
Wildlife			
Birds			
Aphelocoma californica	California scrub-jay	–	Native
Buteo jamaicensis	red-tailed hawk	–	Native
Cathartes aura	turkey vulture	–	Native
Corvus brachyrhynchos	American crow	–	Native
Corvus corax	common raven	–	Native
Haemorhous mexicanus	house finch	–	Native
Junco hyemalis	dark-eyed junco	–	Native
Melozone crissalis	California towhee	–	Native
Melospiza melodia	song sparrow	–	Native
Pipilo maculatus	spotted towhee	–	Native
Polioptila caerulea	blue-gray gnatcatcher	–	Native
Psaltriparus minimus	bushtit	–	Native
Sayornis nigricans	black phoebe	–	Native
Sayornis saya	say's phoebe	–	Native
Selasphorus sasin	Allen’s hummingbird	–	Native

Scientific Name	Common Name	Status	Native or Introduced
Sialia mexicana	western bluebird	–	Native
Spinus tristis	American goldfinch	–	Native
Reptiles			
Sceloporus occidentalis	western fence lizard	–	Native
Mammals			
Otospermophilus beecheyi	California ground squirrel	–	Native
Sciurus grisneus	western gray squirrel	–	Native

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Appendix D

Special-Status Species Evaluation Tables

Special-Status Species Potential to Occur Table

Scientific Name Common Name	Status	Habitat Requirements	Potential to Occur in Survey Area	Habitat Suitability/Observations
Plants and Lichens				
Berberis nevinii Nevin's barberry	FE/SE G1/S1 1B.1	Perennial evergreen shrub. Chaparral, cismontane woodland, coastal scrub, riparian scrub. Gravelly (sometimes), sandy (sometimes). Elevations: 230-2705ft. (70-825m.) Blooms (Feb)Mar-Jun.	Not Expected	Potentially suitable chaparral and scrub habitat occurs within the Survey Area. However, this is a conspicuous perennial species that would have been identifiable during the field survey and was not observed.
Calochortus clavatus var. *clavatus* club-haired mariposa lily	None/None G4T3/S3 4.3	Perennial bulbiferous herb. Chaparral, cismontane woodland, coastal scrub, valley and foothill grassland. Clay, Rocky, serpentinite (usually). Elevations: 100-4265ft. (30-1300m.) Blooms (Mar)May-Jun.	Low Potential	Potentially suitable chaparral and scrub occurs within the Survey Area. However, there are no documented CNDDB records within the vicinity of the Survey Area.
Calochortus clavatus var. *gracilis* slender mariposa-lily	None/None G4T2T3/S2S3 1B.2	Perennial bulbiferous herb. Chaparral, coastal scrub, valley and foothill grassland. Shaded foothill canyons; often on grassy slopes within other habitat. Elevations: 1050-3280ft. (320-1000m.) Blooms Mar-Jun(Nov).	Low Potential	Some suitable habitat exists within the Survey Area with known occurrences within two miles of the Survey Area. However, no shaded foothill canyons or grassy slopes are present within the Survey Area.
Calochortus fimbriatus late-flowered mariposa-lily	None/None G3/S3 1B.3	Perennial bulbiferous herb. Chaparral, cismontane woodland, riparian woodland. Serpentinite (sometimes). Elevations: 900-6250ft. (275-1905m.) Blooms Jun-Aug.	Low Potential	Some suitable habitat exists within the Survey Area; however, there are no known occurrences within seven miles of the Survey Area.
Calochortus palmeri var. *palmeri* Palmer's mariposa-lily	None/None G3T2/S2 1B.2	Perennial bulbiferous herb. Chaparral, lower montane coniferous forest, meadows and seeps. Mesic. Elevations: 2330-7840ft. (710-2390m.) Blooms Apr-Jul.	Not Expected	The Survey Area is outside of the known elevation range of the species.
Calochortus plummerae Plummer's mariposa-lily	None/None G4/S4 4.2	Perennial bulbiferous herb. Chaparral, cismontane woodland, coastal scrub, lower montane coniferous forest, valley and foothill grassland. Granitic, rocky. Elevations: 330-5580ft. (100-1700m.) Blooms May-Jul.	Low Potential	Granitic, rocky areas are absent from the Survey Area. The closest CNDDB record (Occurrence No. 190) is approximately 3.5 miles south of the Survey Area.

Scientific Name Common Name	Status	Habitat Requirements	Potential to Occur in Survey Area	Habitat Suitability/Observations
Calystegia peirsonii Peirson's morning-glory	None/None G4/S4 4.2	Perennial rhizomatous herb. Chaparral, chenopod scrub, cismontane woodland, coastal scrub, lower montane coniferous forest, valley and foothill grassland. Often in disturbed areas or along roadsides or in grassy, open areas. Elevations: 100-4920ft. (30-1500m.) Blooms Apr-Jun.	Low Potential	Potentially suitable chaparral and scrub habitat occurs within the Survey Area. However, the only CNDDB records within the vicinity of the Survey Area are more than 30 years old, and this is a perennial species that was not observed during the field survey.
Cercocarpus betuloides var. *blancheae* island mountain-mahogany	None/None G5T4/S4 4.3	Perennial evergreen shrub. Chaparral, closed-cone coniferous forest. Elevations: 100-1970ft. (30-600m.) Blooms Feb-May.	Not Expected	Potentially suitable chaparral habitat is present within the Survey Area. However, this is a conspicuous perennial species that would have been observed during the field survey.
Chorizanthe parryi var. *fernandina* San Fernando Valley spineflower	None/SE G3T1/S1 1B.1	Annual herb. Coastal scrub, valley and foothill grassland. Sandy soils. Elevations: 490-4005ft. (150-1220m.) Blooms Apr-Jul.	Low Potential	Potentially suitable scrub habitat occurs within portions of the Survey Area. There are a few recent CNDDB occurrences within 5 miles of the Survey Area. The species rarely occurs within floodplains.
Chorizanthe parryi var. *parryi* Parry's spineflower	None/None G3T2/S2 1B.1	Annual herb. Chaparral, cismontane woodland, coastal scrub, valley and foothill grassland. Openings, Rocky (sometimes), sandy (sometimes). Elevations: 900-4005ft. (275-1220m.) Blooms Apr-Jun.	Low Potential	Potentially suitable chaparral habitat is present within the Survey Area. However, there is an absence of grassland habitat and lack of CNDDB occurrences within the vicinity for the species.
Deinandra minthornii Santa Susana tarplant	None/SR G2/S2 1B.2	Perennial deciduous shrub. Chaparral, coastal scrub. On sandstone outcrops and crevices, in shrubland. Elevations: 920-2495ft. (280-760m.) Blooms Jul-Nov.	Not Expected	Chaparral and scrub habitat are present within the Survey Area. However, sandstone outcrops and crevices preferred by the species are not present.
Deinandra paniculata paniculate tarplant	None/None G4/S4 4.2	Annual herb. Coastal scrub, valley and foothill grassland, vernal pools. Usually in vernally mesic sites. Sometimes in vernal pools or on mima mounds near them. Elevations: 80-3085ft. (25-940m.) Blooms (Mar)Apr-Nov.	Not Expected	Vernally mesic sites within coastal scrub and/or grassland habitat are absent from the Survey Area.

Scientific Name Common Name	Status	Habitat Requirements	Potential to Occur in Survey Area	Habitat Suitability/Observations
Dodecahema leptoceras slender-horned spineflower	FE/SE G1/S1 1B.1	Annual herb. Chaparral, cismontane woodland, coastal scrub. Flood deposited terraces and washes; associates include Encelia, Dalea, Lepidospartum, etc. Sandy soils. Elevations: 655-2495ft. (200-760m.) Blooms Apr-Jun.	Low Potential	Suitable habitat exists within the portions of the Survey Area; however the project site is frequently disturbed by vehicle traffic and access road use. This species is unlikely to establish in frequently disturbed areas. This species is also possibly extirpated or extirpated from the area according to CNDDB Occurrences #5, #6, and #10.
Harpagonella palmeri Palmer's grapplinghook	None/None G4/S3 4.2	Annual herb. Chaparral, coastal scrub, valley and foothill grassland. Clay soils; open grassy areas within shrubland. Elevations: 65-3135ft. (20-955m.) Blooms Mar-May.	Not Expected	Potentially suitable habitat occurs in the chaparral and scrub habitat is present within the Survey Area. CNDDB record (Occurrence No. 60) of this species recorded within the vicinity of the Survey Area is a non-specific, undated record, and clay soils are absent from the Survey Area.
Helianthus inexpectatus Newhall sunflower	None/None G1/S1 1B.1	Perennial rhizomatous herb. Marshes and swamps, riparian woodland. Freshwater marshes, and seeps. Elevations: 1000-1000ft. (305-305m.) Blooms Aug-Oct.	Low Potential	Marginally suitable cattail marshes are Marshes, swamps, and meadow seeps are not present within the Survey Area. However, there is only one occurrence within 5 miles of the Survey Area..
Hordeum intercedens vernal barley	None/None G3G4/S3S4 3.2	Annual herb. Coastal dunes, coastal scrub, valley and foothill grassland, vernal pools. Vernal pools, dry, saline streambeds, alkaline flats. 5-. Elevations: 15-3280ft. (5-1000m.) Blooms Mar-Jun.	Not Expected	Vernal pools, dry saline streambeds, and alkaline flats are absent from the Survey Area.
Horkelia cuneata var. *puberula* mesa horkelia	None/None G4T1/S1 1B.1	Perennial herb. Chaparral, cismontane woodland, coastal scrub. Sandy or gravelly sites. Elevations: 230-2660ft. (70-810m.) Blooms Feb-Jul(Sep).	Low Potential	Some suitable chaparral is present along with sandy or gravelly soils; however, no known CNDDB occurrences within the vicinity of the Survey Area. This species is possibly extirpated from the area according to CNDDB Occurrence #103 from 1929.
Juglans californica Southern California black walnut	None/None G4/S4 4.2	Perennial deciduous tree. Chaparral, cismontane woodland, coastal scrub, riparian woodland. Slopes, canyons, alluvial habitats. Elevations: 165-2955ft. (50-900m.) Blooms Mar-Aug.	Not Expected	Suitable chaparral exists within the Survey Area; however, this is a conspicuous perennial tree that would have been detected in the Survey Area during the field survey. This species was not observed in the Survey Area.

Scientific Name Common Name	Status	Habitat Requirements	Potential to Occur in Survey Area	Habitat Suitability/Observations
Juncus acutus ssp. *leopoldii* southwestern spiny rush	None/None G5T5/S4 4.2	Perennial rhizomatous herb. Coastal dunes, marshes and swamps, meadows and seeps. Moist saline places. Elevations: 10-2955ft. (3-900m.) Blooms (Mar)May-Jun.	Not Expected	Marginally suitable cattail marshes are present within the Survey Area. However, moist saline soils are not expected within the riparian corridor. There are no CNDDB occurrences within 5 miles of the Survey Area.
Lepechinia fragrans fragrant pitcher sage	None/None G3/S3 4.2	Perennial shrub. Chaparral. Elevations: 65-4300ft. (20-1310m.) Blooms Mar-Oct.	Not Expected	Chaparral is present within the Survey Area; however, the species is a conspicuous shrub that would have been identified within the Survey Area during the field survey.
Lepechinia rossii Ross' pitcher sage	None/None G1/S1 1B.2	Perennial shrub. Chaparral. Soil derived from fine-grained, reddish sedimentary rock. Elevations: 1000-2590ft. (305-790m.) Blooms May-Sep.	Not Expected	Chaparral is present within the Survey Area. However, there is an absence of soil preference (reddish sedimentary rock, fine-grain) within the Survey Area. Moreover, this is a conspicuous shrub species that would have been identified during the field survey.
Lepidium virginicum var. *robinsonii* Robinson's pepper-grass	None/None G5T3/S3 4.3	Annual herb. Chaparral, coastal scrub. Dry soils, shrubland. 4-. Elevations: 5-2905ft. (1-885m.) Blooms Jan-Jul.	Low Potential	Potentially suitable chaparral habitat occurs within the Survey Area. However, there are no documented CNDDB records within the vicinity of the Survey Area.
Lilium humboldtii ssp. *ocellatum* ocellated Humboldt lily	None/None G4T4?/S4? 4.2	Perennial bulbiferous herb. Chaparral, cismontane woodland, coastal scrub, lower montane coniferous forest, riparian woodland. Yellow-pine forest or openings, oak canyons. Elevations: 100-5905ft. (30-1800m.) Blooms Mar-Jul(Aug).	Low Potential	Wetted portions of intermittent streams upstream of San Francisquito Creek may provide suitable habitat; however, wetted areas of the San Francisquito Creek are not within Survey Area. Marginally suitable chaparral and riparian woodlands occur within the Survey Area; however, the field reconnaissance survey was conducted during the blooming period for this species and it was not observed.
Lupinus paynei Payne's bush lupine	None/None G1Q/S1 1B.1	Perennial shrub. Coastal scrub, riparian scrub, valley and foothill grassland. Sandy. Elevations: 720-1380ft. (220-420m.) Blooms Mar-Apr (May-Jul).	Not Expected	Some suitable scrub habitat is present within the Survey Area; however, there are no foothill grasslands present within the Survey Area. Sandy soils occur within the Survey Area. However, this is a conspicuous shrub species that would have been identified during the field survey.

Scientific Name Common Name	Status	Habitat Requirements	Potential to Occur in Survey Area	Habitat Suitability/Observations
Malacothamnus davidsonii Davidson's bushmallow	None/None GNR/S2 1B.2	Perennial deciduous shrub. Chaparral, cismontane woodland, coastal scrub, riparian woodland. Sandy washes. Elevations: 605-3740ft. (185-1140m.) Blooms Jun-Jan.	Not Expected	Potentially suitable chaparral and coastal scrub habitat occurs in the Survey Area. However, this is a conspicuous shrub species that would have been identified during the field survey and was not observed.
Navarretia fossalis spreading navarretia	FT/None G2/S2 1B.1	Annual herb. Chenopod scrub, marshes and swamps, playas, vernal pools. San Diego hardpan and San Diego claypan vernal pools; in swales and vernal pools, often surrounded by other habitat types. Elevations: 100-2150ft. (30-655m.) Blooms Apr-Jun.	Not Expected	Hardpan, vernal pools are not present within Survey Area.
Navarretia ojaiensis Ojai navarretia	None/None G2/S2 1B.1	Annual herb. Chaparral, coastal scrub, valley and foothill grassland. Openings in shrublands or grasslands. Elevations: 900-2035ft. (275-620m.) Blooms May-Jul.	Low Potential	Potentially suitable chaparral habitat occurs within the Survey Area and limited annual grassland habitat occurs within the Survey Area. However, the project site is frequently disturbed by vehicle traffic and access road use. This species is unlikely to establish in frequently disturbed areas.
Navarretia setiloba Piute Mountains navarretia	None/None G2/S2 1B.1	Annual herb. Cismontane woodland, pinyon and juniper woodland, valley and foothill grassland. Red clay soils, or on gravelly loam. Elevations: 935-6890ft. (285-2100m.) Blooms Apr-Jul.	Not Expected	Limited annual grassland habitat is present in proximity to Survey Area; moreover, the preferred soil selection is not present within Survey Area.
Opuntia basilaris var. *brachyclada* short-joint beavertail	None/None G5T3/S3 1B.2	Perennial stem. Chaparral, Joshua tree woodland, Mojavean desert scrub, pinyon and juniper woodland. Sandy soil or coarse, granitic loam. Elevations: 1395-5905ft. (425-1800m.) Blooms Apr-Jun(Aug).	Not Expected	Potentially suitable chaparral habitat occurs in the Survey Area. However, this is a conspicuous perennial species that would have been identifiable during the field survey and was not observed.
Orcuttia californica California Orcutt grass	FE/SE G1/S1 1B.1	Annual herb. Vernal pools. Elevations: 50-2165ft. (15-660m.) Blooms Apr-Aug.	Not Expected	Vernal pools are not present within the Survey Area.

Scientific Name Common Name	Status	Habitat Requirements	Potential to Occur in Survey Area	Habitat Suitability/Observations
Pseudognaphalium leucocephalum white rabbit-tobacco	None/None G4/S2 2B.2	Perennial herb. Chaparral, cismontane woodland, coastal scrub, riparian woodland. Sandy, gravelly sites. Elevations: 0-6890ft. (0-2100m.) Blooms (Jul)Aug-Nov(Dec).	Not Expected	Potentially suitable chaparral and scrub habitat occurs in the Survey Area to support this species. However, this is a conspicuous perennial species that would have been identifiable during the field survey and was not observed.
Senecio aphanactis chaparral ragwort	None/None G3/S2 2B.2	Annual herb. Chaparral, cismontane woodland, coastal scrub. Drying alkaline flats. Elevations: 50-2625ft. (15-800m.) Blooms Jan-Apr(May).	Not Expected	Alkaline areas within chaparral or coastal scrub habitat are not present within the Survey Area.
Streptanthus campestris southern jewelflower	None/None G3/S3 1B.3	Perennial herb. Chaparral, lower montane coniferous forest, pinyon and juniper woodland. Open, rocky areas. Elevations: 2955-7545ft. (900-2300m.) Blooms (Apr)May-Jul.	Not Expected	The Survey Area is not within elevation range for the species.
Symphyotrichum greatae Greata's aster	None/None G2/S2 1B.3	Perennial rhizomatous herb. Broadleafed upland forest, chaparral, cismontane woodland, lower montane coniferous forest, riparian woodland. Mesic canyons. Elevations: 985-6595ft. (300-2010m.) Blooms Jun-Oct.	Not Expected	No suitable mesic habitat occurs within the Survey Area. This is a conspicuous perennial that would have been identified during the field survey and was not observed.
Invertebrates				
Bombus crotchii Crotch's bumble bee	None/SCE G2/S2	Coastal California east to the Sierra-Cascade crest and south into Mexico. Food plant genera include Antirrhinum, Phacelia, Clarkia, Dendromecon, Eschscholzia, and Eriogonum.	Low Potential	While limited food plant genera exist within the Survey Area, there are no CNDDB occurrences of this species in the last 25 years within three miles of the Survey Area. All recent nearby occurrences occur within the foothills of the Santa Susana Mountains where coastal scrub habitat and floral resources for the species are more abundant.

Scientific Name Common Name	Status	Habitat Requirements	Potential to Occur in Survey Area	Habitat Suitability/Observations
Branchinecta lynchi vernal pool fairy shrimp	FT/None G3/S3	Endemic to the grasslands of the Central Valley, Central Coast mountains, and South Coast mountains, in astatic rain-filled pools. Inhabit small, clear-water sandstone-depression pools and grassed swale, earth slump, or basalt-flow depression pools.	Not Expected	Vernal pools are not present in Survey Area.
Danaus plexippus plexippus pop. 1 monarch - California overwintering population	FPT/None G4T1T2Q/S2	Winter roost sites extend along the coast from northern Mendocino to Baja California, Mexico. Roosts located in wind-protected tree groves (eucalyptus, Monterey pine, cypress), with nectar and water sources nearby.	Not Expected	Suitable tree groves for roosting are not present within Survey Area.
Euphydryas editha quino quinto checkerspot butterfly	FE/None G4G5T1T2/S1S2	Sunny openings within chaparral and coastal sage shrublands in parts of Riverside and San Diego counties. Hills and mesas near the coast. Need high densities of food plants Plantago erecta, P. insularis, and Orthocarpus purpurescens.	Not Expected	The Survey Area is outside of the known range for the species. In addition, suitable food plants are absent from Survey Area.
Fish				
Catostomus santaanae Santa Ana sucker	FT/None G1/S1 SSC	Endemic to Los Angeles Basin south coastal streams. Habitat generalists, but prefer sand-rubble-boulder bottoms, cool, clear water, and algae.	Not Expected	No open water habitat within the Survey Area will support this species. The most recent (2007) and closest occurrences are within the Santa Clara River approximately 0.7 miles southwest of the Survey Area. Although this species has low potential to occur within the Survey Area when the creek is flowing, the project site is located within previously disturbed and developed areas, where there is no habitat to support this species.

Scientific Name Common Name	Status	Habitat Requirements	Potential to Occur in Survey Area	Habitat Suitability/Observations
Gasterosteus aculeatus williamsoni unarmored threespine stickleback	FE/SE G5T1/S1 FP	Weedy pools, backwaters, and among emergent vegetation at the stream edge in small Southern California streams. Cool (<24 C), clear water with abundant vegetation.	Not Expected	No open water habitat within the Survey Area will support this species. The most recent (2007) and closest occurrences are within the Santa Clara River approximately 0.7 miles southwest of the Survey Area. Although this species has low potential to occur within the Survey Area when the creek is flowing, the project site is located within previously disturbed and developed areas, where there is no habitat to support this species.
Gila orcuttii arroyo chub	None/None G1/S2 SSC	Native to streams from Malibu Creek to San Luis Rey River basin. Introduced into streams in Santa Clara, Ventura, Santa Ynez, Mojave and San Diego river basins. Slow water stream sections with mud or sand bottoms. Feeds heavily on aquatic vegetation and associated invertebrates.	Not Expected	No open water habitat within the Survey Area will support this species. The most recent (2011) and closest occurrences are within the Santa Clara River approximately 0.7 miles southwest of the Survey Area. Although this species has low potential to occur within the Survey Area when the creek is flowing, the project site is located within previously disturbed and developed areas, where there is no habitat to support this species.
Rhinichthys gabrielino Santa Ana speckled dace	FPT/None G5T1/S1 SSC	Headwaters of the Santa Ana and San Gabriel rivers. May be extirpated from the Los Angeles River system. Requires permanent flowing streams with summer water temps of 17-20 C. Usually inhabits shallow cobble and gravel riffles.	Not Expected	This species is not associated with this riparian system.
Amphibians				
Anaxyrus californicus arroyo toad	FE/None G2G3/S2 SSC	Semi-arid regions near washes or intermittent streams, including valley-foothill and desert riparian, desert wash, etc. Rivers with sandy banks, willows, cottonwoods, and sycamores; loose, gravelly areas of streams in drier parts of range.	Low Potential	Only one CNDDB record for this species exists within five miles of the Survey Area and is located approximately 1.4 miles away (Occurrence No. 29) in the Santa Clara River, just east of I-5. There is a low probability of the species migrating through the Survey Area because the San Francisquito Creek lacks sufficient water flow to support arroyo toad breeding.

Scientific Name Common Name	Status	Habitat Requirements	Potential to Occur in Survey Area	Habitat Suitability/Observations
Rana boylii pop. 6 foothill yellow-legged frog - south coast DPS	FE/SE G3T1/S1	Southern Coast Ranges from Monterey Bay south through San Gabriel Mountains; west of the Salinas River in Monterey Co, south through Transverse Ranges, and east through San Gabriel Mountains. Historically may have ranged to Baja California. Partly shaded shallow streams and riffles with a rocky substrate in a variety of habitats. Needs at least some cobble-sized substrate for egg-laying and at least 15 weeks to attain metamorphosis.	Not Expected	No extended permanent water is found within this region of the San Francisquito Creek or within the Survey Area. Furthermore, this species is considered extirpated from the area.
Rana draytonii California red-legged frog	FT/None G2G3/S2S3 SSC	Lowlands and foothills in or near permanent sources of deep water with dense, shrubby or emergent riparian vegetation. Requires 11-20 weeks of permanent water for larval development. Must have access to estivation habitat.	Not Expected	No extended permanent water is found within this region of the San Francisquito Creek or within the Survey Area.
Rana muscosa southern mountain yellow-legged frog	FE/SE G1/S2 WL	Disjunct populations known from southern Sierras (northern DPS) and San Gabriel, San Bernardino, and San Jacinto Mtns (southern DPS). Found at 1,000 to 12,000 ft in lakes and creeks that stem from springs and snowmelt.	Not Expected	No known occurrences within the watershed. Moreover, there is a lack of suitable water flow, and the Survey Area is not within the typical elevation range for the species.
Spea hammondii western spadefoot	FPT/None G2G3/S3S4 SSC	Occurs primarily in grassland habitats, but can be found in valley-foothill hardwood woodlands. Vernal pools are essential for breeding and egg-laying.	Not Expected	Vernal pools and valley-foothill woodlands are not present within the Survey Area.
Taricha torosa Coast Range newt	None/None G4/S4 SSC	Coastal drainages from Mendocino County to San Diego County. Lives in terrestrial habitats and will migrate over 1 km to breed in ponds, reservoirs and slow moving streams.	Not Expected	There is an absence of permanent water within the Survey Area. In addition, there are no known occurrences within the Santa Clara River watershed.

Scientific Name Common Name	Status	Habitat Requirements	Potential to Occur in Survey Area	Habitat Suitability/Observations
Reptiles				
Actinemys pallida southwestern pond turtle	FPT/None G2G3/SNR SSC	A thoroughly aquatic turtle of ponds, marshes, rivers, streams and irrigation ditches, usually with aquatic vegetation, below 6000 ft elevation. Needs basking sites and suitable (sandy banks or grassy open fields) upland habitat up to 0.5 km from water for egg-laying.	Low Potential	Marginally suitable habitat is present for the species. Although surface water was present within small portions of the Survey Area, these areas do not contain suitable basking sites for this species.
Anniella spp. California legless lizard	None/None G3G4/S3S4 SSC	Contra Costa County south to San Diego, within a variety of open habitats. This element represents California records of Anniella not yet assigned to new species within the Anniella pulchra complex. Variety of habitats; generally in moist, loose soil. They prefer soils with a high moisture content.	Moderate Potential	This species is identified as a generalist species with a preference for loose soil with potentially high moisture content, which may be present in the Survey Area after seasonal rains or infrequent storm events. In addition, there are six known occurrences within 5 miles of the Survey Area, two of which are located within the Santa Clara River approximately 1.2 miles southeast of the Survey Area (Occurrence No. 76 and 77). There is one occurrence within San Francisquito Creek immediately north of the Survey Area from 1954 (Occurrence No. 73).
Arizona elegans occidentalis California glossy snake	None/None G5T2/S2 SSC	Patchily distributed from the eastern portion of San Francisco Bay, southern San Joaquin Valley, and the Coast, Transverse, and Peninsular ranges, south to Baja California. Generalist reported from a range of scrub and grassland habitats, often with loose or sandy soils.	Low Potential	Suitable open habitat with sandy soils is present within the banks of the San Francisquito Creek in the Survey Area. However, all CNDDB records within five miles of the Survey Area are more than 60 years old.
Aspidoscelis tigris stejnegeri coastal whiptail	None/None G5T5/S3 SSC	Found in deserts and semi-arid areas with sparse vegetation and open areas. Also found in woodland and riparian areas. Ground may be firm soil, sandy, or rocky.	High Potential	This species is identified as a generalist species, and there are semi-arid areas with limited vegetation present within the San Francisquito Creek and areas surrounding the Survey Area. In addition, the closest CNDDB record is approximately 1.5 miles downstream within San Francisquito Creek (Occurrence No. 126).

Scientific Name Common Name	Status	Habitat Requirements	Potential to Occur in Survey Area	Habitat Suitability/Observations
Phrynosoma blainvillii coast horned lizard	None/None G4/S4 SSC	Frequents a wide variety of habitats, most common in lowlands along sandy washes with scattered low bushes. Open areas for sunning, bushes for cover, patches of loose soil for burial, and abundant supply of ants and other insects.	High Potential	This species is identified as a generalist species, and there are semi-arid areas with scrub vegetation present within San Francisquito Creek and areas surrounding the eastern portion of the Survey Area. The closest CNDDB record is approximately 0.7 miles southeast of the Survey Area in the Santa Clara River (Occurrence No. 551). There is one occurrence within San Francisquito Canyon, approximately 0.75 miles northwest of the Survey Area (Occurrence No. 705).
Thamnophis hammondii two-striped gartersnake	None/None G4/S3S4 SSC	Coastal California from vicinity of Salinas to northwest Baja California. From sea to about 7,000 ft elevation. Highly aquatic, found in or near permanent fresh water. Often along streams with rocky beds and riparian growth.	Low Potential	Riparian habitat does occur but permanent sources of fresh water are not present within the Survey Area.
Thamnophis sirtalis pop. 1 south coast gartersnake	None/None G5T1T2/S1S2 SSC	Southern California coastal plain from Ventura County to San Diego County, and from sea level to about 850 m. Marsh and upland habitats near permanent water with good strips of riparian vegetation.	Not Expected	Limited riparian habitat is present within the Survey Area. Marsh habitats near permanent water are also not present within the Survey Area.
Birds				
Accipiter cooperii Cooper's hawk	None/None G5/S4 WL	Woodland, chiefly of open, interrupted or marginal type. Nest sites mainly in riparian growths of deciduous trees, as in canyon bottoms on river flood-plains; also, live oaks.	Low Potential	Low-quality nesting habitat is present in the Fremont cottonwood forest and woodland vegetation community in the Survey Area. This vegetation community consists of a relatively small patch of trees (less than 0.03 acre). Therefore, this has a low potential to nest in the Survey Area. In addition, the Survey Area occurs in a dry segment of the San Francisquito Creek reach and occurs adjacent to existing development. Therefore, foraging habitat is considered low quality.

Scientific Name Common Name	Status	Habitat Requirements	Potential to Occur in Survey Area	Habitat Suitability/Observations
Aimophila ruficeps canescens southern California rufous-crowned sparrow	None/None G5T3/S4 WL	Resident in Southern California coastal sage scrub and sparse mixed chaparral. Frequents relatively steep, often rocky hillsides with grass and forb patches.	Low Potential	Some suitable habitat is present (sage scrub, sparse mixed chaparral); however, there is an absence of rocky hillsides with grass and forbs.
Ammodramus savannarum grasshopper sparrow	None/None G5/S3 SSC	Dense grasslands on rolling hills, lowland plains, in valleys and on hillsides on lower mountain slopes. Favors native grasslands with a mix of grasses, forbs and scattered shrubs. Loosely colonial when nesting.	Not Expected	Native grasslands are absent from the Survey Area, and the Survey Area lacks rolling hills and lower mountain foothills within the Survey Area.
Artemisiospiza belli belli Bell's sparrow	None/None G5T2T3/S3 WL	Nests in chaparral dominated by fairly dense stands of chamise. Found in coastal sage scrub in south of range. Nests located on the ground beneath a shrub or in a shrub 6-18 inches above ground. Territories about 50 yds apart.	Not Expected	Dense chamise chaparral habitat is not present within the Survey Area.
Athene cunicularia burrowing owl	None/SCE G4/S2 SSC	Open, dry annual or perennial grasslands, deserts, and scrublands characterized by low-growing vegetation. Subterranean nester, dependent upon burrowing mammals, most notably, the California ground squirrel.	Not Expected	There is limited suitable habitat present for the species, and dry desert and soil communities are absent. Burrowing mammal communities were not identified within the field survey.
Buteo swainsoni Swainson's hawk	None/ST G5/S4	Breeds in grasslands with scattered trees, juniper-sage flats, riparian areas, savannahs, and agricultural or ranch lands with groves or lines of trees. Requires adjacent suitable foraging areas such as grasslands, or alfalfa or grain fields supporting rodent populations.	Low Potential	There is limited suitable habitat present for nesting within the Survey Area. In addition, there are minimal riparian areas and no savannahs or agricultural lands within the Survey Area for foraging.
Coccyzus americanus occidentalis western yellow-billed cuckoo	FT/SE G5T2T3/S1	Riparian forest nester, along the broad, lower flood-bottoms of larger river systems. Nests in riparian jungles of willow, often mixed with cottonwoods, with lower story of blackberry, and nettles.	Not Expected	There are minimal riparian forests present within the Survey Area, and this species is highly unlikely to utilize the small fragmented grouping of Fremont cottonwood located within the Survey Area. There are no CNDDB occurrences within five miles of the Survey Area, and this species is considered to be possibly extirpated from the area.

Scientific Name Common Name	Status	Habitat Requirements	Potential to Occur in Survey Area	Habitat Suitability/Observations
Elanus leucurus white-tailed kite	None/None G5/S3S4 FP	Rolling foothills and valley margins with scattered oaks and river bottomlands or marshes next to deciduous woodland. Open grasslands, meadows, or marshes for foraging close to isolated, dense-topped trees for nesting and perching.	Low Potential	Marginally suitable riparian woodlands occur within the Survey Area. The species is highly unlikely to utilize the small, fragmented grouping of Fremont cottonwood located within the Survey Area. There is only one CNDDB occurrence located approximately 1 mile northwest of the Survey Area.
Eremophila alpestris actia California horned lark	None/None G5T4Q/S4 WL	Coastal regions, chiefly from Sonoma County to San Diego County. Also main part of San Joaquin Valley and east to foothills. Short-grass prairie, "bald" hills, mountain meadows, open coastal plains, fallow grain fields, alkali flats.	Not Expected	Short-grass prairies, bald hills, and mountain meadows are absent from the Survey Area.
Falco mexicanus prairie falcon	None/None G5/S4 WL	Inhabits dry, open terrain, either level or hilly. Breeding sites located on cliffs. Forages far afield, even to marshlands and ocean shores.	Low Potential	Suitable breeding habitat (i.e., cliffsides) is absent from the Survey Area. Some open habitat is present. Foraging habitat within the Survey Area is low quality. There are no documented CNDDB records within the vicinity of the Survey Area.
Gymnogyps californianus California condor	FE/SE G1/S2 FP	Require vast expanses of open savannah, grasslands, and foothill chaparral in mountain ranges of moderate altitude. Deep canyons containing clefts in the rocky walls provide nesting sites. Forages up to 100 miles from roost/nest.	Not Expected	The Survey Area is outside of suitable foothill chaparral mountain ranges for this species. There is one historic CNDDB record from 1987 approximately 13 miles northwest of the Survey Area.
Icteria virens yellow-breasted chat	None/None G5/S4 SSC	Summer resident; inhabits riparian thickets of willow and other brushy tangles near watercourses. Nests in low, dense riparian, consisting of willow, blackberry, wild grape; forages and nests within 10 ft of ground.	Not Expected	Dense riparian thickets are not present within the Survey Area to support nesting. The only CNDDB occurrence within nine quadrangles of the Survey Area is from 1979.
Lanius ludovicianus loggerhead shrike	None/None G4/S4 SSC	Broken woodlands, savannah, pinyon-juniper, Joshua tree, and riparian woodlands, desert oases, scrub and washes. Prefers open country for hunting, with perches for scanning, and fairly dense shrubs and brush for nesting.	Low Potential	The two closest CNDDB occurrences are located approximately 2 to 2.2 miles north and northwest of the Survey Area. Marginally suitable riparian woodlands occur within San Francisquito Creek within the Survey Area.

Scientific Name Common Name	Status	Habitat Requirements	Potential to Occur in Survey Area	Habitat Suitability/Observations
Polioptila californica californica coastal California gnatcatcher	FT/None G4G5T3Q/S2 SSC	Obligate, permanent resident of coastal sage scrub below 2500 ft in Southern California. Low, coastal sage scrub in arid washes, on mesas and slopes. Not all areas classified as coastal sage scrub are occupied.	Moderate Potential	Suitable sage scrub habitat exists in sections of the eastern border and western border of the Survey Area. The sage scrub habitat within the Survey Area includes California sagebrush, California buckwheat scrub. The two closest CNDDB records are approximately one mile north and northeast of the Survey Area (Occurrence No. 853 and 939). There are several other CNDDB records within 5 miles of the Survey Area. The Survey Area is not located within USFWS-Designated Critical Habitat for the species.
Riparia riparia bank swallow	None/ST G5/S3	Colonial nester; nests primarily in riparian and other lowland habitats west of the desert. Requires vertical banks/cliffs with fine-textured/sandy soils near streams, rivers, lakes, ocean to dig nesting hole.	Not Expected	Marginally suitable vertical banks occur on the western side of San Francisquito Creek. However, this species is considered extirpated from the area with only one CNDDB occurrence from 1897 within nine quadrangles of the Survey Area.
Setophaga petechia yellow warbler	None/None G5/S3 SSC	Riparian plant associations in close proximity to water. Also nests in montane shrubbery in open conifer forests in Cascades and Sierra Nevada. Frequently found nesting and foraging in willow shrubs and thickets, and in other riparian plants including cottonwoods, sycamores, ash, and alders.	Not Expected	Some suitable habitat occurs in the eastern portion of the Survey Area where riparian vegetation occurs. Permanent sources of fresh water are not present within the Survey Area. The only CNDDB occurrence within nine quadrangles of the Survey Area is from 1979.
Vireo bellii pusillus least Bell's vireo	FE/SE G5T2/S3	Summer resident of Southern California in low riparian in vicinity of water or in dry river bottoms; below 2000 ft. Nests placed along margins of bushes or on twigs projecting into pathways, usually willow, Baccharis, mesquite.	Moderate Potential	Some suitable habitat occurs in the eastern portion of the Survey Area where riparian vegetation occurs. There are several recent CNDDB occurrences within five miles of the Survey Area near the confluence of the Santa Clara River and Castaic Creek. The Survey Area is not located within USFWS-designated critical habitat for the species; however, the closest critical habitat is located approximately one mile southwest of the Survey Area.

Scientific Name Common Name	Status	Habitat Requirements	Potential to Occur in Survey Area	Habitat Suitability/Observations
Mammals				
Antrozous pallidus pallid bat	None/None G4/S3 SSC	Found in a variety of habitats including deserts, grasslands, shrublands, woodlands, and forests. Most common in open, dry habitats with rocky areas for roosting. Roosts in crevices of rock outcrops, caves, mine tunnels, buildings, bridges, and hollows of live and dead trees which must protect bats from high temperatures. Very sensitive to disturbance of roosting sites.	Low Potential	There is a high degree of human disturbance along the western boundaries of the Survey Area. The species is unlikely to utilize the frequently disturbed buildings present adjacent to the Survey Area. If present, the species would likely only utilize the area for foraging.
Corynorhinus townsendii Townsend's big-eared bat	None/None G4/S2 SSC	Occurs throughout California in a wide variety of habitats. Most common in mesic sites, typically coniferous or deciduous forests. Roosts in the open, hanging from walls & ceilings in caves, lava tubes, bridges, and buildings. This species is extremely sensitive to human disturbance.	Low Potential	There is a high degree of human disturbance and development along the western boundaries of the Survey Area. The species is unlikely to utilize the frequently disturbed buildings present adjacent to the Survey Area. If present, the species would likely only utilize the area for foraging.
Euderma maculatum spotted bat	None/None G4/S3 SSC	Occupies a wide variety of habitats from arid deserts and grasslands through mixed conifer forests. Typically forages in open terrain; over water and along washes. Feeds almost entirely on moths. Roosts in rock crevices in cliffs or caves. Occasionally roosts in buildings.	Low Potential	Identified as a generalist species, it would likely utilize the area for foraging exclusively if present. Suitable roosting habitat is not present within the Survey Area.
Eumops perotis californicus western mastiff bat	None/None G4G5T4/S3S4 SSC	Occurs in open, semi-arid to arid habitats, including coniferous and deciduous woodlands, coastal scrub, grasslands, and chaparral. Roosts in crevices in cliff faces and caves, and buildings. Roosts typically occur high above ground.	Low Potential	Suitable roosting habitat (rock crevices in cliffs and caves) is absent from the Survey Area. While existing structures are present in the Survey Area, they are frequently disturbed/occupied by humans and do not provide suitable roosting habitat. Use of the Survey Area by this species would be for foraging only.

Scientific Name Common Name	Status	Habitat Requirements	Potential to Occur in Survey Area	Habitat Suitability/Observations
Macrotus californicus California leaf-nosed bat	None/None G3G4/S3 SSC	Occurs in desert riparian, desert wash, desert scrub, desert succulent scrub, alkali scrub and palm oasis habitats. Needs rocky, rugged terrain with abandoned mines or caves for roosting.	Not Expected	Preferred desert habitat is not present within the Survey Area for the species to occur.
Neotoma lepida intermedia San Diego desert woodrat	None/None G5T3T4/S3S4 SSC	Occurs in scrub habitats of southern California from San Luis Obispo County to San Diego County.	Moderate Potential	Some open scrub habitat is present within the project site and buffer of the Survey Area. Woodrat middens were observed within the Survey Area; however, there are no known occurrences within five miles of the Survey Area.
Onychomys torridus ramona southern grasshopper mouse	None/None G5T3/S3 SSC	Desert areas, especially scrub habitats with friable soils for digging. Prefers low to moderate shrub cover. Feeds almost exclusively on arthropods, especially scorpions and orthopteran insects.	Not Expected	Desert habitat is not present within the Survey Area.
Taxidea taxus American badger	None/None G5/S3 SSC	Most abundant in drier open stages of most shrub, forest, and herbaceous habitats, with friable soils. Needs sufficient food, friable soils and open, uncultivated ground. Preys on burrowing rodents. Digs burrows.	Low Potential	Suitable habitat exists within the Survey Area given that this is a generalist species with sufficiently large range. However, there is only one known occurrence of the species within five miles of the Survey Area.

Regional Vicinity refers to within a 9-quad search radius of site.

Status (Federal/State)

FE = Federal Endangered
FT = Federal Threatened
FPT = Federal Proposed Threatened
SE = State Endangered
ST = State Threatened
SCE = State Candidate Endangered
SSC = CDFW Species of Special Concern
FP = CDFW Fully Protected
WL = CDFW Watch List

CRPR (CNPS California Rare Plant Rank)

1A = Presumed extirpated in California, and rare or extinct elsewhere
1B = Rare, Threatened, or Endangered in California and elsewhere
2A = Presumed extirpated in California, but common elsewhere
2B= Rare, Threatened, or Endangered in California, but more common elsewhere
3 = Need more information (Review List)
4 = Limited Distribution (Watch List)

CRPR Threat Code Extension

.1 = Seriously endangered in California (>80% of occurrences threatened/high degree and immediacy of threat)
.2 = Moderately threatened in California (20-80% of occurrences threatened/moderate degree and immediacy of threat)
.3 = Not very endangered in California (<20% of occurrences threatened/low degree and immediacy of threat)

Scientific Name Common Name	Status	Habitat Requirements	Potential to Occur in Survey Area	Habitat Suitability/Observations
Other Statuses				
G1 or S1	Critically Imperiled Globally or Subnationally (state)			
G2 or S2	Imperiled Globally or Subnationally (state)			
G3 or S3	Vulnerable to extirpation or extinction Globally or Subnationally (state)			
G4/5 or S4/5	Apparently secure, common and abundant			
GH or SH	Possibly Extirpated – missing; known from only historical occurrences but still some hope of rediscovery			

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Appendix C

Cultural Resources Assessment

Rincon Consultants, Inc.
250 East 1st Street, Suite 1400
Los Angeles, California 90012
213-788-4842

September 12, 2025
Project No: 24-16744

Yoganathan Thierumaran, PE, Engineer
Santa Clarita Valley Water Agency
26515 Summit Circle
Santa Clarita, California 91350
Via email: YThierumaran@scvwa.org

Subject: Cultural Resources Assessment for the Wells W9 and W10 PFAS Groundwater Treatment Improvements Project, Santa Clarita, Los Angeles County, California

Dear Mr. Thierumaran:

Santa Clarita Valley Water Agency (SCV Water) retained Rincon Consultants, Inc. (Rincon) to prepare a Cultural Resources Assessment in support of the Wells W9 and W10 Groundwater Treatment Improvements Project (project) in Santa Clarita, Los Angeles County, California. This letter report documents the results of the assessment and tasks conducted by Rincon, including a California Historical Resources Information System (CHRIS) records search, a Native American Heritage Commission (NAHC) Sacred Lands File (SLF) search, archival and background research including a desktop geoarchaeological review, and a pedestrian field survey. This study has been completed pursuant to the requirements of the California Environmental Quality Act (CEQA). As such, the study has been prepared in accordance with the CEQA Guidelines Appendix G Checklist for Cultural Resources Guidelines Section 15064.5. SCV Water is the lead agency for the purposes of CEQA.

Project Location

The project site is in the city of Santa Clarita in northern Los Angeles County, within Sections 3, 4, 9 and 16 of Township 4 North, Range 16 West on the *Newhall, California* 7.5-minute topographic quadrangle (Attachment 1: Figure 1). The total project area consists of an approximately 36-acre impact area which is located within the following properties and public right-of-way:

- **Assessor's Parcel Number 2810-002-101:** This parcel contains the existing Well W9, which occupies the approximately 0.2-acre (8,700 square feet) parcel owned by SCV Water. The site is located west of San Francisquito Creek and approximately 0.5 mile north of Decoro Drive, 0.8 mile south of Copper Hill Drive, and 200 feet east of the San Francisquito Creek Trail. San Francisquito Creek runs north to south through the parcel (Attachment 1: Figure 2).
- **Assessor's Parcel Number 2810-067-008:** This parcel contains the existing Well W10, which occupies approximately 0.03 acre (1,330 square feet). The site is located within a parking lot immediately north of Newhall Ranch Road, 150 feet west of San Francisquito Creek, and 0.6 mile south of Decoro Drive (Attachment 1: Figure 2).
- **Public Right-of-Way of San Francisquito Creek Trail.** The project site includes approximately 11,000 linear feet of the San Francisquito Creek Trail, which generally runs north-south along the west side of San Francisquito Creek through the city of Santa Clarita (see Attachment 1: Figure 2 and Figure 3).

Project Description

The project involves the construction of a groundwater treatment facility and associated pipelines to treat per- and polyfluorinated alkyl substances (PFAS) to levels below the federal Maximum Contamination Level, restore the use of Wells W9 and W10, and reduce SCV Water's dependency on imported water.

This study is focused the project construction phase. The following sections describe the project components.

The project is currently in the design phase. Proposed locations for groundwater treatment facility, the new Well W9 site, and the raw water pipeline are shown in Figure 2 and Figure 3; however, these final locations are subject to change. To ensure a comprehensive analysis of all potential impacts to cultural resources impacts, it is assumed that all project components would ultimately be located within the Maximum Project Boundary shown in Figure 2 and Figure 3.

Well W9 Site

The following project components would occur at the existing Well W9 site (Figure 2).

Well W9 Rehabilitation

Well W9 would be rehabilitated; rehabilitation would involve removal of existing well equipment and installation of a new vertical turbine, 12-inch well pump, a 250-horsepower motor, and electrical equipment. The rehabilitated Well W9 would have a design flow capacity of 1,200 gallons per minute (gpm).

Centralized Groundwater Treatment Facility

The project includes construction of a centralized groundwater treatment facility within Assessor's Parcel Number 2810-002-101 near the existing Well W9 site. The currently proposed location of the groundwater treatment facility is shown in Figure 2; the final location would be generally located in this area within the Maximum Project Boundary. The facility would include two cartridge filters, one set of ion-exchange vessels (or equivalent technology), yard piping, and a building to house chemical feed and storage, controls, and electrical equipment. Each of the cartridge filters (including aboveground piping) would be approximately 30 square feet and seven feet in height. The ion-exchange vessels (including appurtenances) would be approximately 12 feet in diameter and 14 feet in height.

The project also involves installation of several chemical feed systems that may include water softeners, a brine tank, a skid-mounted electrolytic cell, a sodium hypochlorite storage tank, and two skid-mounted metering pumps, a liquid ammonium sulfate bulk storage tank, a sodium bisulfite bulk storage tank and an approximately 200-foot groundwater discharge pipeline between the facility and San Francisquito Creek. The proposed cartridge filters and ion-exchange vessels would be installed outside within the treatment facility. The chemical feed systems would be installed within a concrete masonry unit treatment building approximately 80 feet by 60 feet in area and 30 feet in height. All elements of the treatment facility would be enclosed within a concrete masonry unit with gates for vehicle and pedestrian access. New lighting would be installed around the treatment facility building and site ingress/egress and the facility would also include a new supervisory control and data acquisition system. The treatment facility would result in the addition of approximately 10,000 square feet of impervious surfaces to the project site. The project would also involve installation of an approximately 200-foot discharge pipeline, which would convey treated, discharged groundwater from the treatment facility to San Francisquito Creek. The project may include the installation of rip-rap or

other energy-dissipating features at the terminus of the discharge pipeline, which would not exceed an area of 50 by 50 feet.

Electrical Upgrades

To accommodate increased load demand for the new well pumps and PFAS treatment equipment, existing pole-mounted transformers would be replaced with a pad-mounted transformer located adjacent to the treatment facility. In addition, new underground conduits and wires would be routed to the existing Well W9 site.

Well W 10 Site

The following project components would occur at the existing Well W10 site (Figure 3).

Well W10 Rehabilitation

Well W10 rehabilitation would involve removal of existing well equipment and installation of a new vertical turbine, 12-inch well pump, a 300-horsepower motor, and electrical equipment. The rehabilitated Well W10 would have a design flow capacity of 1,500 gallons per minute. The project includes converting the existing tablet chlorination system at Well W10 to a chloramine-based distribution system consisting of disinfection with liquid sodium hypochlorite followed by chloramine formation using liquid ammonium sulfate.

Electrical Upgrades

To accommodate increased load demand for the new well pump, existing pole-mounted transformers would be replaced with a pad-mounted transformer located adjacent to the treatment facility. In addition, new underground conduits and wires would be routed to the existing Well W10 site.

Pipeline and Access Road

The following project components are generally planned along the raw water pipeline and access road alignment (Figure 2 and Figure 3).

Raw Water Pipeline Installation

The project involves installation of approximately 8,000 linear feet of 12-inch raw water pipeline between Well W10 and W9 to convey groundwater extracted via Well W10 to the proposed treatment facility at the Well W9 site. The pipeline alignment is currently proposed to be within the San Francisquito Creek Trail and would follow the trail's alignment from the Well W10 site to the Well W9 site and the proposed treatment facility. The pipeline's ultimate alignment is subject to change and would be located within the Maximum Project Boundary. The pipeline would be primarily installed using open-cut excavation along the San Francisquito Creek Trail; the segment crossing the Decoro Drive bridge may be installed using trenchless technology methods (jack-and-bore, horizontal directional drilling, etc.). Entry and exit pits for the trenchless installation may be located north and south of Decoro Drive, respectively, and fall within the Maximum Project Boundary. Pits would measure approximately 40 feet by 40 feet, with a maximum depth of 20 feet.

Access Road Improvements

Maintenance vehicles currently access the Well W9 site using San Francisquito Creek Trail via Copper Hill Drive. The trail is 16 feet wide, relatively straight, and can accommodate light-duty maintenance

vehicles. However, the treatment facility would require resin change-outs once or twice per year, which would require a slurry truck 55 feet in length to travel to the treatment facility. There are several places along the trail that would not accommodate a slurry truck's length, and there is not currently a feasible area for a truck to turn around at the Well W9 site. To allow for truck access to the treatment facility, the existing access easement would be expanded in three locations: near the access road entrance off Copper Hill Drive, along the trail near Village Circle Drive, and at the Well W9 site. Trucks would drive along the San Francisquito Creek Trail and adjacent gravel areas. Minor grading work may be required to expand the easement and allow truck travel.

Construction

Construction of the project is expected to occur over approximately 30 months. The maximum depth of excavation for construction for the project may be twelve feet, except for the trenchless installation pits, which would have a maximum depth of 20 feet. Soil excavated from the site would be used as fill, and excess soil would be transported using haul trucks with a capacity of 16 cubic yards and disposed at the Sunshine Canyon Landfill or another local landfill.

Methods

This section presents the methods for each task completed during the preparation of this assessment.

Background Research

California Historical Resources Information System Records Search

On May 7, 2025, Rincon staff conducted a CHRIS records search at the South Central Coastal Information Center (SCCIC) located at California State University, Fullerton. The SCCIC is the official state repository for cultural resources records and reports for Los Angeles County, where the project site is located. The records search included a review of all previously conducted cultural resources studies and previously recorded cultural resources within the project site and a 0.5-mile radius. Rincon also reviewed the National Register of Historic Places, the California Register of Historical Resources (CRHR), the California Historical Landmarks list, and the Built Environment Resources Directory. In addition, Rincon reviewed the Archaeological Determination of Eligibility list.

Sacred Lands File Search

Rincon contacted the NAHC on May 5, 2025, to request a search of the SLF and a contact list of Native Americans that are traditionally and culturally affiliated with the project area. No tribal outreach was conducted as part of this assessment.

Geoarchaeological Review

A geoarchaeological review was conducted to assess the potential for subsurface archaeological resources to be present within the project site. Sources reviewed as part of this assessment include historical topographic maps, historical aerial photographs, geologic maps, and soil survey maps. The intent of the review was to provide a land use history of the project site and its vicinity, as well as to assess the likelihood for the project site to contain subsurface archaeological deposits.

Field Survey

Rincon Archaeologist, Andrea Ogaz, MA, Registered Professional Archaeologist (RPA), conducted a pedestrian survey of the project site on May 16, 2025. The project site is partially hardscaped and includes areas with low visibility due to dense vegetation; therefore, an intensive archaeological survey was not possible. Instead, an opportunistic survey approach was employed, selectively examining areas of exposed ground surface, which were limited to areas within and adjacent to the existing bike trail. Exposed ground surfaces were examined for artifacts (e.g., flaked stone tools, tool-making debris, stone milling tools), ecofacts (marine shell and bone), soil discoloration that might indicate the presence of a cultural midden, historical debris (e.g., metal, glass, ceramics), and features indicative of the former presence of structures or buildings (e.g., standing exterior walls, foundations). Survey accuracy was maintained using a handheld Global Positioning Satellite unit and a georeferenced map of the project site. Project site characteristics and survey conditions were documented using field records and a digital camera. Copies of the survey notes and digital photographs are maintained at Rincon's Los Angeles office.

Findings

This section presents the findings of each task completed during the preparation of this assessment.

California Historical Resources Information System Records Search

Previous Cultural Resources Studies

The CHRIS records search results indicate that 19 cultural resources studies have been previously conducted within the 0.5-mile records search radius between the years 1974 and 2006. Of the 19 studies, six partially overlap the project site or include areas within the project site (LA-00054, LA-01317, LA-02106, LA-003690, LA-03904, and LA-10210) and two are adjacent to the project site (LA-02718 and LA-03093). The six studies that overlap the project are summarized below. The full list of previous cultural resources studies is provided in Attachment 2.

LA-00054

Study LA-00054, *Archaeological Resources of the Proposed Castaic Conduit System*, is a Phase I Archaeological Study prepared by Nelson N. Leonard III in 1974 in support of the Castaic Conduit System conduit, pump station, and treatment plant development (Leonard 1974). The study summarizes the methods and results of a records search and a pedestrian field survey of the linear route of the conduit line, and the pump station and treatment plant areas. The study overlaps the southern portion of the current project site within the W10 site. No cultural resources were identified within the current project site and the Phase I Archaeological Study was completed with negative results.

LA-01317

Study LA-01317, *Preliminary Archaeological Reconnaissance San Francisquito Canyon,* is a Phase I Archaeological Study prepared by Louis Tartaglia in 1983 in support of housing development within San Francisquito Canyon in Newhall, California (Tartaglia 1983). The study summarizes the methods and results of a reconnaissance survey, an assessment of impacts, and provides mitigation recommendations. The study overlaps the entire current project site. No cultural resources were identified within the current project site.

LA-02106

Study LA-02106, *Cultural Resources Archaeological Survey Tentative Tract No. 44831*, is a Phase I Archaeological Study prepared by Louis Tartaglia in 1989 in support of a residential housing development near San Francisquito Creek and Newhall Ranch Road, in Saugus, California (Tartaglia 1989). The study included a records search, reconnaissance survey, assessment of impacts, and mitigation recommendations for unanticipated discovery of cultural resources. The study was completed with negative results, identified no direct impacts to cultural resources for the project and recommended that mitigation for unanticipated discovery of cultural resources be included in project approval to ensure no adverse impacts to cultural resources occur. The study overlaps the current project site at Decoro Drive. No cultural resources were identified within the current project site as a result of Study LA-02106.

LA-03690

Study LA-03690, *Cultural Resources Evaluation City of Santa Clarita Circulation Element EIR Los Angeles County, California*, was prepared by Robert J. Wlodarski in 1997 in support of roadway networks as part of the comprehensive update to the Circulation Element for the City of Santa Clarita General Plan (Wlodarski 1997). The study included a records search, archival research, review of historic topographic maps, and impact assessments. The study identified two precontact archaeological resources, that could be directly impacted by overall project implementation. None of the cultural resources identified by Wlodarski's study are located within or immediately adjacent to the current project site. The study overlaps the northern portion of the current project site.

LA-03904

Study LA-03904, *Phase I Archaeological Survey and Cultural Resources Assessment for the Parcel Map 19091 North River Study Area, Los Angeles County, California*, was prepared by W&S Consultants in 1995 (W&S Consultants 1995). The study included a records search, literature review, and pedestrian field survey. The study was completed with negative results, identified no direct impacts to cultural resources, and recommended unanticipated discovery of cultural resources measure be included in project approval to ensure no adverse impacts to cultural resources occur. The study overlaps the entire boundary of current project site. No cultural resources were identified within the current project site as a result of Study LA-03904.

LA-10210

Study LA-10210, *Cultural Resources Survey Report for Antelope-Pardee 500-kV Transmission Project*, was prepared by Koral Ahmet and Roger D. Mason of ECORP Consulting, Inc. in 2005 and was revised in 2006 (Ahmet and Mason 2006). The study included a records search, SLF search by the NAHC, and a pedestrian field survey. The records search identified 12 previously recorded cultural resources within the project site, including one precontact site and 11 historic-period sites. None of the cultural resources identified by ECORPS's study are located within or immediately adjacent to the current project site. The study overlaps a linear section of the central portion of the current project site.

Known Cultural Resources

The records search results identified two cultural resources that have been previously recorded within the 0.5-mile records search radius (Table 1). No cultural resources were identified within or immediately adjacent to the project site.

Table 1 Previously Recorded Cultural Resources

Primary No.	Trinomial	Description	Dates Recorded	NRHP/CRHR Eligibility	Relationship to Project Site
P-19-002070	CA-LAN-002070H	Clougherty Ranch Caretaker's House – single story adobe built circa 1920s	1992	S: Separately eligible	Outside; 2,451 feet northeast
P-19-190664	--	Harry Carey Ranch – Caretaker's House	1993	2S2: Determined eligible	Outside: 2,171 feet north

NRHP = National Register of Historic Places; CRHR = California Register of Historical Resources
Source: South Central Coastal Information Center 2025

Sacred Lands File Search

On May 13, 2025, the NAHC responded to Rincon's SLF request, stating the results of the SLF search were positive, meaning that sacred lands have been reported in the vicinity of the project site. See Attachment 3 for the NAHC response letter. SCV Water, through consultation with tribes, may elicit information as to the specifics of any sacred lands in the vicinity of the project site, however, outreach to tribes was not conducted as part of this study and as such are not considered further in this report.

Geoarchaeological Review

Historical Topographic Map and Aerial Imagery Review

Historical topographic maps reviewed include the 1903 *Santa Susana, California* 15-minute topographic quadrangle, 1929 *Saugus, California* 7.5-minute topographic quadrangle, 1943 *Santa Susana, California* 15-minute quadrangle, 1952 *Newhall, California* 7.5-minute quadrangle, and 1970 and 1988 revised 1952 *Newhall, California* 7.5-minute quadrangle (United States Geological Survey 2025). Historical aerial photographs of the project site were reviewed via Nationwide Environmental Title Research, LLC Online (2025) available for years 1947, 1959, 1969, 1974, 1977, 1980, 1985, 1992, 1994, 1996, 1997, 1998, 1999, 2000,2002, 2005, 2009, 2010, 2012, 2014, 2016, 2018, 2020, and 2022, and Google Earth for 2023, 2024, 2025 (Google Earth 2025, Nationwide Environmental Title Research, LLC Online 2025). Historical aerial photographs via the University of California, Santa Barbara, Library Geospatial Collection, FrameFinder were available for 1928, 1930, 1940, 1947, and 1952.

The 1903 topographic map shows the project site as undeveloped within San Francisquito Canyon, An unnamed north-to-south trending road is depicted along the eastern side of San Francisquito Creek. The Santa Clarita River and the Southern Pacific Railroad are depicted approximately 1.3 miles to the south of the project site. By 1928, the unnamed road along the eastern side of the San Francisquito Creek is no longer depicted. The project site and it's vicinity are undeveloped, a north-south trending road marked as Dry Creek is depicted approximately 1.3 mile to the east to the San Francisquito Creek and east of the project site. The project site and its immediate vicinity remained undeveloped hills along the San Francisquito Creek during the 1920s through early 1940s. Minimal utility and roadway development began in the 1940s. The 1947, 1953, and 1959 show no major development within the project site. An unimproved windy road/trail is depicted along the alignment of present day Dickason Drive.

The 1969 and 1970 maps and aerials show several unimproved roads have been established in the vicinity of the project site along the alignments of present-day Newhall Ranch Road south of Well W10 site, present-day San Francisquito Creek Trail, and extensive grading within and surrounding Well W9

site. Additionally, an unidentified industrial storage area is depicted to the west of Well W10. An additional dirt road (no longer extant) is shown within the northern portion of the project site south of present-day Copper Hill Road.

Extensive grading throughout the creek and the project site is depicted in aerial photographs from 1974, 1977, and 1980. The 1985 aerials show urban development increasing in the vicinity to the south and southwest of the project site, as well as the initial grading for the southern portion of the San Francisquito Creek Trail, within the project site. Additionally in 1985, San Francisquito Creek appears graded and maintained, with some areas used for agricultural purposes. By 1992, Well W9 is developed and the southern portion of the San Francisquito Creek Trail had been paved. The aerial maps from 1992 also show extensive grading to the west of the project site within the area of present-day Valencia High School and further urban development to the south, southeast, and southwest. That same year, the construction of present-day McBean Parkway and extensive residential development to the east of the project site and San Francisquito Creek is shown. Construction of Valencia High School is shown in aerial imagery from 1994 along with the present-day southern alignment of Dickason Drive. The project site remained relatively unchanged apart from the development of present-day Newhall Ranch Road at the southern boundary by 1997 and urban development, including residential neighborhoods continue to increase to the east of San Francisquito Creek.

Aerial photography from 1999 depicts the extension of present-day Copper Hill Road west across San Francisquito Creek on the northern boundary of the project site. That same year the northern half of the project site south of Copper Hill Road appears extensively graded. Aerial photography from 2000 shows the initial stages of development of the residential neighborhood north of Valencia High School, westerly adjacent to the project site. Aerial photography from 2002 shows the initial development of Decoro Drive crossing the project site west-to-east, as well as the beginning stages of development of the existing West Creek Park residential neighborhood along the northwest portion of the project site.

Imagery from 2002 also shows the beginning stages of development of the Paseo Club recreational club adjacent to the southwestern portion of the project site, as well as a faint indistinguishable feature within the location of Well W10. Aerial imagery from 2004 shows the area between Dickason Drive and the San Francisquito Creek Trail had been paved and established with the present-day club and swimming pools. That same year, the current infrastructure for Well W10 appears in aerial imagery. Aerial photography from 2005 shows Francisquito Creek Trail had been extended across Decoro Drive as an unpaved walkway and in aerial photography from 2008, the trail has been paved and extended the full length of the project site from Newhall Ranch Road in the south to Copper Hill Road in the north. Also shown in aerial photography from 2008 are additional indistinguishable features and infrastructure within the Well W9 boundary. In 2009, the location of Well W9 appears re-graded and paved with asphalt. Additional infrastructure appears in aerial photography from 2011 and remains unchanged to the present day. Further improvements to San Francisquito Trail include additional perimeter grading, paving, and fencing shown in aerial photography from 2011. By 2012, the vicinity of the project site has been fully developed on both sides of the San Francisquito Creek. No major change has been observed on the maps and aerials between 2012 and the present day. An unpaved portion of the project site leads northeast off of San Francisquito Creek Trail to Well W9, which is paved with asphalt. The project site is bounded by residential, educational, and recreational development to the west, San Francisquito Creek and open space to the east, paved Newhall Ranch Road to the south, and paved Copper Hill Road to the north. Well W10 is currently located in a paved area in existing, fenced facilities. Well W9 is located in an area with highly compacted soils and disturbed land.

Geologic and Soils Map Review

Geologic mapping indicates three geologic units are mapped at surface in the project site, including Pleistocene-age (2.58 million to 11,700 years ago) Saugus formation pebble-cobble conglomerate, sandstone, and minor siltstone (map unit QTs) in the southwestern portion of the project site above San Francisquito Creek, and Holocene-age (11,650 years ago to present) gravel, sand and clay of valley areas (map unit Qa) on the eastern bank of San Francisquito Creek, and gravel sand of major stream channels (map unit Qg) within the creek bed (Dibblee and Ehrenspeck 1996).

The Natural Resources Conservation Service Web Soil Survey (United States Department of Agriculture [USDA] 2025) mapped three soil series within the project site, the Sandy Alluvial Land, Riverwash, and the Hanford sandy loam. Soils underlying the area surrounding Well W9 include Sandy alluvial land and Hanford sandy loam. Soils underlying and surrounding Well W10 are mapped as Sandy alluvial land and Riverwash. The Sandy Alluvial Land deposits are comprised of sands and gravels deposited along the margins of drainages (USDA 2022). Similarly, Riverwash deposits are comprised of recent sands and gravels deposited within frequently flooded drainage ways and are considered hydric by the USDA (USDA 2025, 2025b). Both soil types have a typical profile consisting of sand from the ground surface to a depth of 6 inches, followed by stratified coarse sand to sandy loam from 6 to 60 inches below the ground surface.

Hanford series soils form on stream bottoms, floodplains, and alluvial fans and have a typical soil profile consisting of topsoil (A-horizon) from the ground surface to a depth of 12 inches followed sedimentary parent material (C-horizon) from depths of 12 to 60 inches below the ground surface (USDA 1999).

Summary

The geoarchaeological review indicates the project site has been subject to previous disturbances associated with road, recreational trail, and urban development and the construction of the existing W9 and W10 wells, pipelines, and infrastructure within the project site. The CHRIS records search background search and field survey identified no precontact or historic period cultural resources within or immediately adjacent to the project site. Two historic-period resources were identified within the 0.5-mile radius of the project site. The project site is located near the eastern bank of the San Francisquito Creek active wash. The geoarchaeological research indicates Holocene-age (11,650 years ago to present) gravel, sand, and clay of valley areas are present on the eastern bank of San Francisquito Creek and gravel sand of major stream channels within the creek bed. While Holocene-age sediments dating to the period of human occupation of the region may bury and preserve archaeological deposits, the project site is located adjacent to an active river wash. The southern and western portions of the project site are completely developed with well W10 and San Francisquito Trail, while the eastern portion of the project area is located along the river and the northern portion of the project site is contained within existing paved roads. Review of historical topographic maps and aerial imagery indicates that the project site and the surrounding areas have been subject to a high degree of natural disturbances as well as developmental disturbances including agricultural and residential, and construction of the existing pipeline and well infrastructure by the late 1960's. Given the degree of previous disturbances, it is unlikely that intact subsurface archaeological resources are present within the project site.

Survey Results

Ground visibility ranged greatly throughout the project site with approximately 60 percent exposure. About 45 percent of the project area contains landscaping and hardscaping associated with the bike trail and intersecting roadways (Attachment 1: Photograph 1). Areas containing landscaping and

hardscaping were not intensively surveyed as ground surface visibility was low to none. Portions of the project site were inaccessible due to dense vegetation and slope (Attachment 1: Photograph 2). Areas that were intensively surveyed contained visibility that ranged from poor (0 to 25 percent) to very good (76 to 90 percent). Visible soils within the accessible project site contained coarse grained light reddish tan silty sand with granitic and sandstone rounded cobbles (Attachment 1: Photograph 3). Disturbances within these areas included bioturbation and evidence of recreational use. Vegetation present within the project site consisted of mature trees including oak, grasses and shrubs and vegetation consistent with a riverine environment. The area immediately around Well W9 retains some of its natural setting; it contained evidence of past grading and maintenance of an access road, indicating disturbance of this area is ongoing (Attachment 1: Photograph 4 and Photograph 5). The area immediately around Well 10 is completely paved and developed and retains none of its natural setting (Attachment 1: Photograph 6). No cultural resources were identified during the field survey.

Summary and Conclusions

Built Environment Resources

No built environment resources were identified within or immediately adjacent to the project site as a result of the CHRIS records search and field survey. The existing W9 and W10 wells were constructed during the 1990s; therefore, the project site does not contain buildings or structures that are 45 years of age or older. Furthermore, the two built environmental resources identified in the CHRIS records search are located approximately a half-mile away with no potential for project impacts. Therefore, the proposed project would not result in a substantial adverse change to built environment resources qualifying as historical resources as defined in *CEQA Guidelines* Section 15064.5(b). Rincon recommends a finding of **no impact to built environment resources qualifying as historical resources** under CEQA.

Archaeological Resources

No precontact or historic-period archaeological resources were identified within the project site as a result of the CHRIS records search, background research, or pedestrian survey. Therefore, no impacts to known archaeological resources qualifying as historical resources or unique archaeological resources as defined by CEQA are anticipated. Furthermore, the project site is located along the east bank of the creek bed underlain by river wash deposits of recent sands and gravels deposited within frequently flooded drainages which have low to no potential to support intact archaeological deposits. The project site has been subject to disturbances associated with road, recreational trail, and urban development and construction of the existing wells W9 and W10. The majority of the proposed project work will take place within existing development or the river wash. Based on the existing conditions of the proposed project site and the findings of this study, the potential for encountering intact archaeological deposits that may qualify as historical resources or unique archaeological resources is low. Nonetheless, although unlikely, unanticipated discoveries remain a possibility during ground disturbance. Archaeological resources discovered during ground disturbing activities could qualify as historical resources or unique archaeological resources and therefore Rincon recommends implementation of standard conditions for unanticipated discoveries during construction, outlined below. With implementation of the standard conditions for unanticipated finds described below, Rincon recommends a finding of **less-than-significant impact with mitigation to archaeological resources qualifying as historical resources or unique archaeological resources** under CEQA.

Unanticipated Discovery of Cultural Resources

In the event an archaeological resource is unexpectedly encountered during ground-disturbing activities, work within 60 feet of the find shall halt and an archaeologist meeting the Secretary of the Interior's Professional Qualifications Standards for Archaeology (National Park Service 1983) shall be contacted immediately to evaluate the resource. Work on the portions of the project outside of the buffered area may continue during this assessment period. If the resource is determined by the qualified archaeologist to be prehistoric, then a Native American representative and/or a tribal monitor from the Fernandeño Tataviam Band of Mission Indians shall also be contacted to participate in the evaluation of the resource. If the resource cannot be avoided by project redesign, and if the qualified archaeologist and/or Native American representative determines it to be appropriate, the archaeological resource shall be evaluated for listing in the CRHR or determined to be a unique archaeological resource for those recommended ineligible for the CRHR. If the resource proves to be eligible for the CRHR or a unique archaeological resource and significant impacts to the resource cannot be avoided via project redesign, a qualified archaeologist shall prepare a data recovery plan, in consultation with the locally affiliated tribe (e.g., Fernandeño Tataviam Band of Mission Indians [FTBMI]), tailored to the physical nature and characteristics of the resource, pursuant to the requirements of the CEQA Guidelines Section 15126.4(b)(3)(C). The data recovery plan shall identify data recovery excavation methods, measurable objectives, and data thresholds to reduce any significant impacts to the cultural resource. Pursuant to the data recovery plan, the qualified archaeologist and Native American representative, as appropriate, shall recover and document the scientifically consequential information that justifies the resource's significance. SCV Water or its Consultant or its Contractor shall review and approve the treatment plan and archaeological testing as appropriate, and the resulting documentation shall be submitted to the SCCIC, pursuant to CEQA Guidelines Section 15126.4(b)(3)(C).

Human Remains

No human remains are known to be present within the project site. However, the discovery of human remains is always a possibility during ground-disturbing activities. If human remains are unexpectedly found, California Health and Safety Code Section 7050.5 states no further disturbance shall occur until the County Coroner has made a determination of origin and disposition pursuant to Public Resources Code Section 5097.98. In the event of an unanticipated discovery of human remains, the County Coroner must be notified immediately. If the human remains are determined to be of Native American origin, the Coroner will notify the NAHC, which will determine and notify a Most Likely Descendant (MLD). The MLD has 48 hours from being granted site access to make recommendations for the disposition of the remains. If the MLD does not make recommendations within 48 hours, the landowner shall reinter the remains in an area of the property secure from subsequent disturbance. With adherence to existing regulations, Rincon recommends a finding of **less-than-significant impact to human remains** under CEQA.

Should you have any questions concerning this study, please do not hesitate to contact Kholood Abdo at 951-405-2351 or kabdo@rinconconsultants.com.

Sincerely,
Rincon Consultants, Inc.



Catherine Johnson, PhD, RPA
Archaeologist



Kholood Abdo, MA.RPA
Senior Supervising Archaeologist



Monica Strauss, MA, RPA
Cultural Resources Principal

Attachments

Attachment 1 Figures and Photographs
Attachment 2 California Historical Resources Information System Records Search Results
Attachment 3 Sacred Lands File Search Results and Native American Outreach

References

Ahmet, Koral and Roger D. Mason

2006 *Cultural Resources Survey Report for Antelope-Pardee 500-kV Transmission Project*. ECORP Consulting, Inc. Study LA-10210 on file at the South Central Coastal Information Center, California State University, Fullerton.

Borejsza, Aleksander, Charles D. Frederick, Luis Morett Alatorre, and Arthur A. Joyce

2014 Alluvial Stratigraphy and the Search for Preceramic Open-Air Sites in Highland Mesoamerica. *Latin American Antiquity*, Vol. 25, No. 3. 278–299.

Dibblee, T.W., and H.E. Ehrenspeck

1996 Geologic map of the *Newhall* quadrangle, Los Angeles County, California. Dibblee Geological Foundation Map DF-56, scale 1:24,000. Accessed online at: https://ngmdb.usgs.gov/ngm-bin/pdp/zui_viewer.pl?id=34282 (accessed May 2025).

Google Earth

2025 Aerial Imagery of the Project Site and Surrounding Area. Electronic resource (accessed May 2025).

National Park Service

1983 *Archaeology and Historic Preservation: Secretary of the Interior's Standards and Guidelines*. https://www.nps.gov/subjects/historicpreservation/upload/standards-guidelines-archeology-historic-preservation.pdf (accessed May 2025).

Nationwide Environmental Title Research, LLC Online

2025 Historic Aerial Photographs for the Years 1959, 1969, 1974, 1977, 1980, 1985, 1992, 1994, 1996, 1997, 1998, 1999, 2002, 2005, 2009, 2010, 2012, 2014, 2016, 2018, 2020, 2022. Electronic resource, https://www.historicaerials.com/viewer (accessed May 2025).

Nelson, Leonard N. III

1974 *Archaeological Resources of the Proposed Castaic Conduit System*. University of California Los Angeles. Study LA-00054 on file at the South Central Coastal Information Center, California State University, Fullerton.

Tartaglia, Louis James

1983 *Preliminary Archaeological Reconnaissance: San Francisquito Canyon*. Study LA-01317 on file at the South Central Coastal Information Center, California State University, Fullerton.

1989 *Cultural Resources Archaeological Study Tentative Tract No. 44832*. Study LA-02106 on file at the South Central Coastal Information Center, California State University, Fullerton.

United States Department of Agriculture (USDA)

1999 *Hanford Series*. Electronic resource, https://casoilresource.lawr.ucdavis.edu/sde/?series=cortina#osd (accessed May 2025).

2022 *Sandy alluvial land*. Electronic resource, https://websoilsurvey.sc.egove.usda.gove/WssProjduct/vpm3r2430dhfm343legudfkg/20230501_17533005412_5_Map_Unit_Description_Sandy_alluvial_land (accessed May 2025).

2025 Natural Resources Conservation Service Web Soil Survey. https://websoilsurvey.sc.egov.usda.gov/App/HomePage.htm (accessed May 2025).

United States Geological Survey

1903 *Santa Susana, CA*, 1:62500 topographic map. Electronic document accessed May 2025, from: https://livingatlas.arcgis.com/topoexplorer/index.html.

1929 *Saugus, CA*, 1:24000 topographic map. Electronic document accessed May 2025, from: https://livingatlas.arcgis.com/topoexplorer/index.html.

1943 Santa Susana, CA, 1:62500 topographic map. Electronic document accessed June 2025, from https://livingatlas.arcgis.com/topoexplorer/index.html.

1952 *Newhall, CA*, 1:24000 topographic map. Electronic document accessed May 2025, from: https://livingatlas.arcgis.com/topoexplorer/index.html.

1970 *1952 revised Newhall, CA*, 1:24000 topographic map. Electronic document accessed May 2025, from: https://livingatlas.arcgis.com/topoexplorer/index.html.

1988 *1952 revised Newhall, CA*, 1:24000 topographic map. Electronic document accessed May 2025, from: https://livingatlas.arcgis.com/topoexplorer/index.html.

2025 National Geologic Map Database Project. Topographic Maps for the Project Site. https://ngmdb.usgs.gov/topoview/viewer/#4/40.01/-100.06 (accessed May 2025).

University of California, Santa Barbara

1928 FrameFinder. [historical aerial photograph online database]. Flight C-300, Frame E-144. Accessed May 2025, through https://mil.library.ucsb.edu/ap_indexes/FrameFinder/.

1930 FrameFinder. [historical aerial photograph online database]. Flight C-1001A, Frame A-188. Accessed May 2025, through https://mil.library.ucsb.edu/ap_indexes/FrameFinder/.

1940 FrameFinder. [historical aerial photograph online database]. AXJ-1940, Frame 320-15. Accessed May 2025, through https://mil.library.ucsb.edu/ap_indexes/FrameFinder/.

1947 FrameFinder. [historical aerial photograph online database]. Flight GS-EM, Frame 2-90. Accessed May 2025, through https://mil.library.ucsb.edu/ap_indexes/FrameFinder/.

1952 FrameFinder. [historical aerial photograph online database]. Flight AXJ-1952, Frame 3K-29. Accessed May 2025, through https://mil.library.ucsb.edu/ap_indexes/FrameFinder/.

W&S Consultants

1995 *Phase I Archaeological Survey and Cultural Resources Assessment for the Parcel Map 19091 North River Study Area, Los Angeles County, California*. Study LA-03904 on file at the South Central Coastal Information Center, California State University, Fullerton.

Waters, Michael R.

1992 *Principles of Geoarchaeology*. Tucson: The University of Arizona Press.

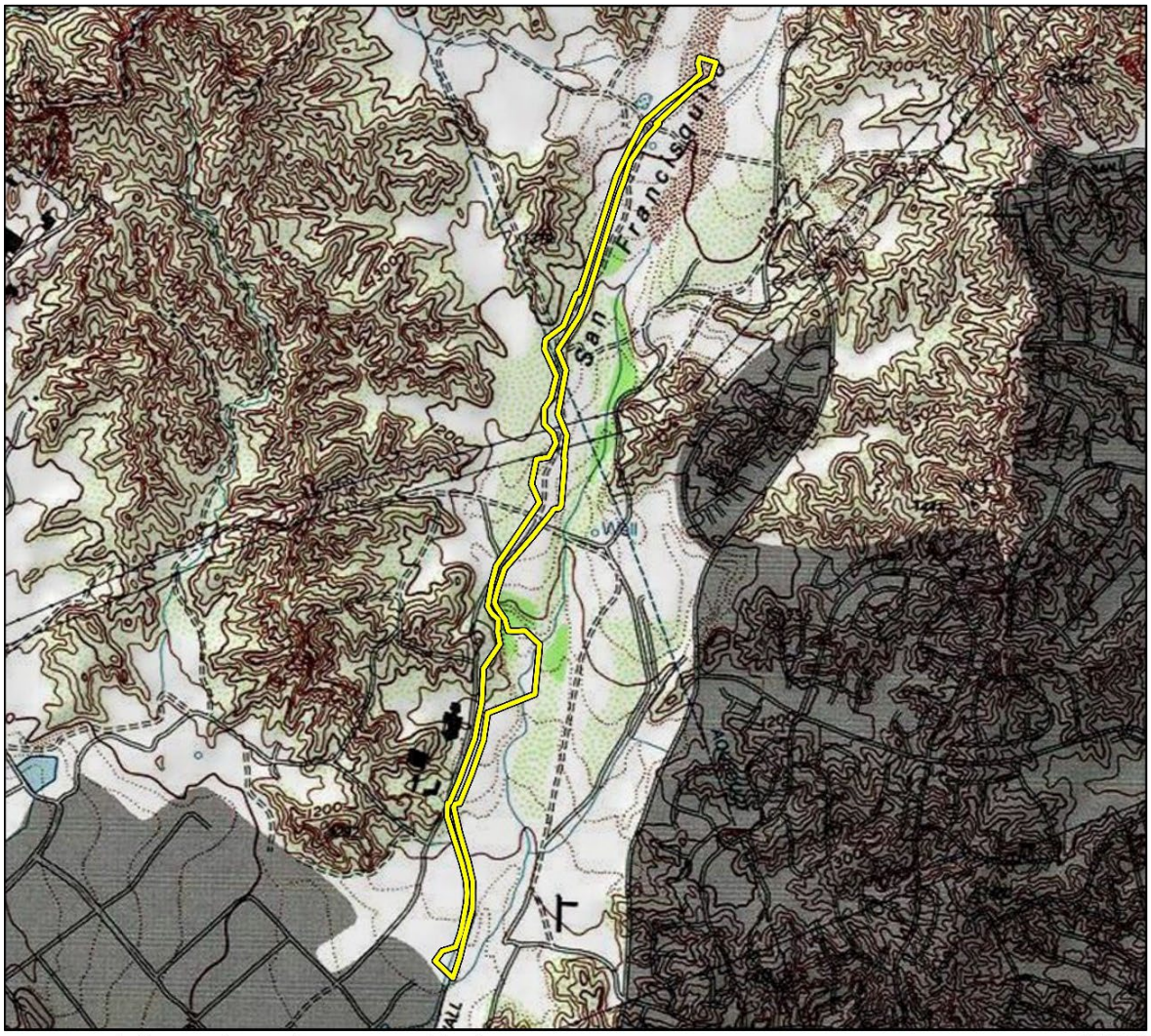
Wlodarski, Robert J.

1997 *Cultural Resources Evaluation City of Santa Clarita Circulation Element EIR Los Angeles County, California*. Historical, Environmental, Archaeological, Research Team (HEART). Study LA-03690 on file at the South Central Coastal Information Center, California State University, Fullerton.

Attachment 1

Figures and Photographs

Figure 1 Project Location



Basemap provided by National Geographic Society, Esri and their licensors © 2025. Newhall Quadrangle. T04N R16W S03-04,09,16. The topographic representation depicted in this map may not portray all of the features currently found in the vicinity today and/or features depicted in this map may have changed since the original topographic map was assembled.

Project Location

0 1,000 2,000 Feet

N

24-16744 CR
CRFig 1 Proj Locn Map

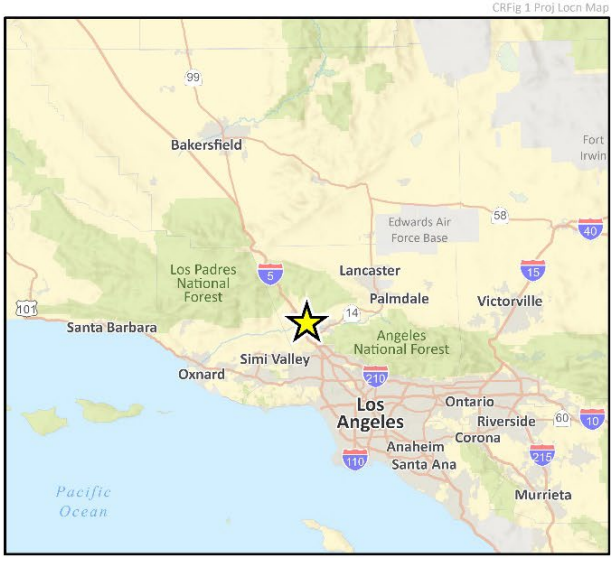


Figure 2 Project Site - Northern Extent



Figure 3 Project Site - Southern Extent



Imagery provided by Microsoft Bing and its licensors © 2025.

24-16744 BIO
Fig 2 Project Location - Bottom

Photograph 1 Overview of Northern Extent of Project Site, Facing North



Photograph 2 Heavily Vegetated Portion of the Project Site, Facing North



Photograph 3 Exposed Ground Surface within Project Site, Facing North



Photograph 4 Overview of Project Site by Well W9, Facing South



Photograph 5 Well 9 Overview, Facing North



Photograph 6 Well 10 Overview, Facing South



Attachment 2

California Historical Resources Information System Records Search Results

Report List

24-16744 SCVWA W9-W10 GW Treatment

Report No.	Other IDs	Year	Author(s)	Title	Affiliation	Resources
LA-00054		1974	Leonard, Nelson N. III	Archaeological Resources of the Proposed Castaic Conduit System	University of California, Los Angeles Archaeological Survey	19-000351
LA-01317		1983	Tartaglia, Louis J.	Preliminary Archaeological Reconnaissance San Francisquito Canyon		19-120077
LA-01342		1984	Tartaglia, Louis J.	Cultural Resources Report San Francisquito Canyon		
LA-01447		1985	Tartaglia, Louis J.	Cultural Resource Survey Report San Francisquito Canyon		
LA-02106		1989	Tartaglia, Louis J.	Cultural Resources Archaeological Survey Tentative Tract No. 44831	Tartaglia Archaeological Consulting	
LA-02503		1992	Romani, John F., Roberta S. Greenwood, Portia Lee, and Gwen Romani	Historic Property Survey Report & Archaeological Survey Report & Historic Architectral Survey Report for the Route 126 Location Study (easterly Extension) From I-5 to SR-14, Santa Claita Valley, Los Angeles County, California 07-la-126-5.8/12.7. Final	Greenwood and Associates; Parsons, Brinckerhofff, Quade & Douglas, Inc.	19-000087, 19-000295, 19-000351, 19-000823, 19-000961, 19-000962, 19-001820, 19-001824, 19-001829, 19-188010
LA-02718		1992	Rasson, Judith A., Toni Snyder, Rene L. Vellanoweth, and Helen Wells	Clougherty Ranch, Los Angeles County, California Cultural Resources Investigation: Literature Search and Survey Final	Cultural Resource Management Services	19-002070, 19-002071, 19-002072
LA-03093		1993	Wells, Helen Fairman, Leslie Heumann, Toni Snyder, Rene Vellanoweth, and Judith Rasson	Phase 2 Historic Resources Investigation for the Proposed Tesoro Del Valle Development, Los Angeles County, California	Cultural Resource Management Services and Leslie Huemann	19-002070, 19-002071, 19-002072, 19-190655, 19-190656, 19-190657, 19-190658, 19-190659, 19-190660, 19-190661, 19-190662, 19-190663, 19-190664
LA-03154		1994	Whitley, David S. and Joseph M. Simon	Phase 1 Archaeological Survey and Cultural Resources Assessment for the Ranch Road-south Project Area, Santa Clarita, Los Angeles County, California	W & S Consultants	
LA-03226		1994	Tartaglia, Louis J.	Cultural Resources Survey Report Tentative Tract Map No. 44831		
LA-03499		1994	Eisentraut, Phyllisa	Metropolitan Water District West Valley Project Cultural Resources Technical Report	Dames & Moore	56-000478, 56-000899, 56-001150
LA-03690		1997	Wlodarski, Robert J.	Cultural Resources Evaluation City of Santa Clarita Circulation Element EIR Los Angeles County, California	Historical, Environmental, Archaeological, Research, Team	

Report List

24-16744 SCVWA W9-W10 GW Treatment

Report No.	Other IDs	Year	Author(s)	Title	Affiliation	Resources
LA-03904		1995	Anonymous	Phase I Archaeological Survey and Cultural Resources Basement for the Parcel Map 19091 North Rover Study Area, Los Angeles County, California	W & S Consultants	
LA-03915		1996	Unknown	Phase I Archaeological Survey and Cultural Resources Assessment of the North Valencia Annexation Project Study Area, Los Angeles County, California	W & S Consultants	
LA-05848		1998	Anonymous	Phase I Archaeological Survey of Planning Sub-area 6 in the Decoro South Project Area, Valencia, Los Angeles County, California	W & S Consultants	
LA-06094		2002	Duke, Curt	Cultural Resource Assessment at&T Wireless Services Facility No. D338b Los Angeles County, California	LSA Associates, Inc.	
LA-09764		2008	Gust, Sherri	Supplemental Archaeological Assessment, Antelope to Pardee Segment 1 (Tehachapi Renewable Transmission Project), Variance 5, Los Angeles County, California	Cogstone Resource Management, Inc.	19-001334, 19-003131, 19-003132, 19-003478
LA-09768	Paleo -	2009	Harper, Veronica and Sherri Gust	Supplemental Archaeological and Paleontological Resource Assessment, Segment 1, Section 1, Tehachapi Renewable Transmission Project, Variance for Additional Space to WSS Between Structures 11 and 12, Los Angeles County, California	Cogstone Resource Management, Inc.	
LA-10210		2006	Ahmet, Koral and Roger D. Mason	Cultural Resources Survey Report for Antelope-Pardee 500-kV Transmission Project	ECORP Consulting, Inc.	19-001334, 19-003329, 19-003474, 19-003475, 19-003476, 19-003477, 19-003478, 19-003479, 19-003480, 19-120077

Resource List

24-16744 SCVWA W9-W10 GW Treatment

Primary No.	Trinomial	Other IDs	Type	Age	Attribute codes	Recorded by	Reports
P-19-002070	CA-LAN-002070H	Resource Name - Clougherty Ranch Caretaker's House; Other - LOCUS 1	Site	Historic	AH03; AH11; AH15; HP02; HP04; HP11; HP30; HP33; HP44		LA-02718, LA-03093
P-19-190664		OHP Property Number - 099981; Resource Name - Harry Carey Ranch - Caretaker's House; Other - Caretaker's House	Building, Element of district	Historic	HP02		LA-03093

Attachment 3

Sacred Lands File Search Results and Native American Outreach

NATIVE AMERICAN HERITAGE COMMISSION

CHAIRPERSON
Reginald Pagaling
Chumash

VICE-CHAIRPERSON
Buffy McQuillen
Yokayo Pomo, Yuki, Nomlaki

SECRETARY
Sara Dutschke
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Wayne Nelson
Luiseño

COMMISSIONER
Isaac Bojorquez
Ohlone-Costanoan

COMMISSIONER
Stanley Rodriguez
Kumeyaay

COMMISSIONER
Reid Milanovich
Cahuilla

COMMISSIONER
Bennae Calac
Pauma-Yuima Band of Luiseño Indians

COMMISSIONER
Vacant

ACTING EXECUTIVE SECRETARY
Steven Quinn

NAHC HEADQUARTERS
1550 Harbor Boulevard
Suite 100
West Sacramento,
California 95691
(916) 373-3710
nahc@nahc.ca.gov

May 13, 2025

Kholood Abdo
Rincon Consultants, Inc.

Via Email to: kabdo@rinconconsultants.com

Re: Native American Tribal Consultation, Pursuant to the Assembly Bill 52 (AB 52), Amendments to the California Environmental Quality Act (CEQA) (Chapter 532, Statutes of 2014), Public Resources Code Sections 5097.94 (m), 21073, 21074, 21080.3.1, 21080.3.2, 21082.3, 21083.09, 21084.2 and 21084.3, Wells W9 and W10 Groundwater Treatment Improvements Project, Los Angeles County

To Whom It May Concern:

Pursuant to Public Resources Code section 21080.3.1 (c), attached is a consultation list of tribes that are traditionally and culturally affiliated with the geographic area of the above-listed project. Please note that the intent of the AB 52 amendments to CEQA is to avoid and/or mitigate impacts to tribal cultural resources, (Pub. Resources Code §21084.3 (a)) ("Public agencies shall, when feasible, avoid damaging effects to any tribal cultural resource.")

Public Resources Code sections 21080.3.1 and 21084.3(c) require CEQA lead agencies to consult with California Native American tribes that have requested notice from such agencies of proposed projects in the geographic area that are traditionally and culturally affiliated with the tribes on projects for which a Notice of Preparation or Notice of Negative Declaration or Mitigated Negative Declaration has been filed on or after July 1, 2015. Specifically, Public Resources Code section 21080.3.1 (d) provides:

Within 14 days of determining that an application for a project is complete or a decision by a public agency to undertake a project, the lead agency shall provide formal notification to the designated contact of, or a tribal representative of, traditionally and culturally affiliated California Native American tribes that have requested notice, which shall be accomplished by means of at least one written notification that includes a brief description of the proposed project and its location, the lead agency contact information, and a notification that the California Native American tribe has 30 days to request consultation pursuant to this section.

The AB 52 amendments to CEQA law does not preclude initiating consultation with the tribes that are culturally and traditionally affiliated within your jurisdiction prior to receiving requests for notification of projects in the tribe's areas of traditional and cultural affiliation. The Native American Heritage Commission (NAHC) recommends, but does not require, early consultation as a best practice to ensure that lead agencies receive sufficient information about cultural resources in a project area to avoid damaging effects to tribal cultural resources.

The NAHC also recommends, but does not require that agencies should also include with their notification letters, information regarding any cultural resources assessment that has been completed on the area of potential effect (APE), such as:

1. The results of any record search that may have been conducted at an Information Center of the California Historical Resources Information System (CHRIS), including, but not limited to:

- A listing of any and all known cultural resources that have already been recorded on or adjacent to the APE, such as known archaeological sites;
- Copies of any and all cultural resource records and study reports that may have been provided by the Information Center as part of the records search response;
- Whether the records search indicates a low, moderate, or high probability that unrecorded cultural resources are located in the APE; and
- If a survey is recommended by the Information Center to determine whether previously unrecorded cultural resources are present.

2. The results of any archaeological inventory survey that was conducted, including:

    - Any report that may contain site forms, site significance, and suggested mitigation measures.

      All information regarding site locations, Native American human remains, and associated funerary objects should be in a separate confidential addendum, and not be made available for public disclosure in accordance with Government Code section 6254.10.

3. The result of the Sacred Lands File (SLF) check conducted through the Native American Heritage Commission was positive. Please contact the Fernandeno Tataviam Band of Mission Indians on the attached list for more information.

4. Any ethnographic studies conducted for any area including all or part of the APE; and

5. Any geotechnical reports regarding all or part of the APE.

Lead agencies should be aware that records maintained by the NAHC and CHRIS are not exhaustive and a negative response to these searches does not preclude the existence of a tribal cultural resource. A tribe may be the only source of information regarding the existence of a tribal cultural resource.

This information will aid tribes in determining whether to request formal consultation. In the event that they do, having the information beforehand will help to facilitate the consultation process.

If you receive notification of change of addresses and phone numbers from tribes, please notify the NAHC. With your assistance, we can assure that our consultation list remains current.

If you have any questions, please contact me at my email address: Andrew.Green@nahc.ca.gov.

Sincerely,

Andrew Green

Andrew Green
Cultural Resources Analyst

Attachment

Native American Heritage Commission
Native American Contact List
Los Angeles County
5/13/2025

Tribe Name	Fed (F) Non-Fed (N)	Contact Person	Contact Address	Phone #	Fax #	Email Address	Cultural Affiliation	Counties	Last Updated
Barbareño/Ventureño Band of Mission Indians	N	Cultural Resource Committee,	P.O. Box 364 Ojai, CA, 93024	(805) 746-6685		CR@bvbmi.com	Chumash	Kern,Los Angeles,San Luis Obispo,Santa Barbara,Ventura	6/19/2023
Chumash Council of Bakersfield	N	Julio Quair, Chairperson	729 Texas Street Bakersfield, CA, 93307	(661) 322-0121		chumashtribe@sbcglobal.net	Chumash	Kern,Los Angeles,San Luis Obispo,Santa Barbara,Ventura	
Coastal Band of the Chumash Nation	N	Gabe Frausto, Chairman	P.O. Box 40653 Santa Barbara, CA, 93140	(805) 568-8063		fraustogabriel28@gmail.com	Chumash	Kern,Los Angeles,San Luis Obispo,Santa Barbara,Ventura	8/28/2023
Fernandeno Tataviam Band of Mission Indians	N	Sarah Brunzell, CRM Manager	1019 Second Street San Fernando, CA, 91340	(818) 837-0794		CRM@tataviam-nsn.us	Tataviam	Kern,Los Angeles,Ventura	5/25/2023
Gabrieleno Band of Mission Indians - Kizh Nation	N	Andrew Salas, Chairperson	P.O. Box 393 Covina, CA, 91723	(844) 390-0787		admin@gabrielenoindians.org	Gabrieleno	Los Angeles,Orange,Riverside,San Bernardino,Santa Barbara,Ventura	8/18/2023
Gabrieleno Band of Mission Indians - Kizh Nation	N	Christina Swindall Martinez, Secretary	P.O. Box 393 Covina, CA, 91723	(844) 390-0787		admin@gabrielenoindians.org	Gabrieleno	Los Angeles,Orange,Riverside,San Bernardino,Santa Barbara,Ventura	8/18/2023
Gabrieleno/Tongva San Gabriel Band of Mission Indians	N	Anthony Morales, Chairperson	P.O. Box 693 San Gabriel, CA, 91778	(626) 483-3564	(626) 286-1262	GTTribalcouncil@aol.com	Gabrieleno	Los Angeles,Orange,Riverside,San Bernardino,Santa Barbara,Ventura	12/4/2023
Gabrielino Tongva Indians of California Tribal Council	N	Christina Conley, Cultural Resource Administrator	P.O. Box 941078 Simi Valley, CA, 93094	(626) 407-8761		christina.marsden@alumni.usc.edu	Gabrielino	Los Angeles,Orange,Riverside,San Bernardino,Santa Barbara,Ventura	3/16/2023
Gabrielino Tongva Indians of California Tribal Council	N	Robert Dorame, Chairperson	P.O. Box 490 Bellflower, CA, 90707	(562) 761-6417	(562) 761-6417	gtongva@gmail.com	Gabrielino	Los Angeles,Orange,Riverside,San Bernardino,Santa Barbara,Ventura	3/16/2023
Gabrielino/Tongva Nation	N	Sandonne Goad, Chairperson	106 1/2 Judge John Aiso St., #231 Los Angeles, CA, 90012	(951) 807-0479		sgoad@gabrielino-tongva.com	Gabrielino	Los Angeles,Orange,Riverside,San Bernardino,Santa Barbara,Ventura	3/28/2023
Gabrielino-Tongva Tribe	N	Charles Alvarez, Chairperson	23454 Vanowen Street West Hills, CA, 91307	(310) 403-6048		Chavez1956metro@gmail.com	Gabrielino	Los Angeles,Orange,Riverside,San Bernardino,Santa Barbara,Ventura	5/30/2023
Gabrielino-Tongva Tribe	N	Sam Dunlap, Cultural Resource Director	P.O. Box 3919 Seal Beach, CA, 90740	(909) 262-9351		tongvatcr@gmail.com	Gabrielino	Los Angeles,Orange,Riverside,San Bernardino,Santa Barbara,Ventura	5/30/2023
Northern Chumash Tribal Council	N	Violet Walker, Chairperson	P.O. Box 6533 Los Osos, CA, 93412	(760) 549-3532		violetsagewalker@gmail.com	Chumash	Kern,Los Angeles,San Luis Obispo,Santa Barbara,Ventura	6/5/2023
San Fernando Band of Mission Indians	N	Donna Yocum, Chairperson	P.O. Box 221838 Newhall, CA, 91322	(503) 539-0933	(503) 574-3308	dyocum@sfbmi.org	Kitanemuk Vanyume Tataviam	Kern,Los Angeles,San Bernardino,Ventura	5/8/2023
Santa Ynez Band of Chumash Indians	F	Wendy Teeter, Cultural Resources Archaeologist	100 Via Juana Road Santa Ynez, CA, 93460	(805) 325-8630		wteeter@chumash.gov	Chumash	Kern,Los Angeles,San Luis Obispo,Santa Barbara,Ventura	7/6/2023
Santa Ynez Band of Chumash Indians	F	Nakia Zavalla, Tribal Historic Preservation Officer	100 Via Juana Road Santa Ynez, CA, 93460			nzavalla@chumash.gov	Chumash	Kern,Los Angeles,San Luis Obispo,Santa Barbara,Ventura	7/6/2023
Santa Ynez Band of Chumash Indians	F	Sam Cohen, Government & Legal Affairs Director	100 Via Juana Road Santa Ynez, CA, 93460			scohen@chumash.gov	Chumash	Kern,Los Angeles,San Luis Obispo,Santa Barbara,Ventura	7/6/2023
Santa Ynez Band of Chumash Indians	F	, General CRM Consultation Account	100 Via Juana Road Santa Ynez, CA, 93460			CRMConsultation@chumash.gov	Chumash	Kern,Los Angeles,San Luis Obispo,Santa Barbara,Ventura	4/28/2025

This list is current only as of the date of this document. Distribution of this list does not relieve any person of statutory responsibility as defined in Section 7050.5 of the Health and Safety Code, Section 5097.94 of the Public Resources Code and Section 5097.98 of the Public Resources Code.

This list is only applicable for consultation with Native American tribes under Public Resources Code Sections 21080.3.1 for the proposed Wells W9 and W10 Groundwater Treatment Improvements Project, Los Angeles County.

Record: PROJ-2025-002597
Report Type: AB52 GIS
Counties: Los Angeles
NAHC Group: All

Appendix D

Energy Consumption Calculations

SCV Water Wells W9 and W10

Last Updated: 7/22/25

Compression-Ignition Engine Brake-Specific Fuel Consumption (BSFC) Factors **[1]**:

HP: 0 to 100	0.0588	HP: Greater than 100	0.0529

Values above are expressed in gallons per horsepower-hour/BSFC.

CONSTRUCTION EQUIPMENT

Construction Equipment	#	Hours per Day	Horsepower	Load Factor	Construction Phase	Fuel Used (gallons)
Tractors/Loaders/Backhoes	1	8	97	0.37	Site Preparation Phase	169
Tractors/Loaders/Backhoes	1	8	97	0.37	Grading Phase	506
Plate Compactors	1	8	8	0.43	Grading Phase	49
Cranes	1	8	367	0.29	Building Construction Phase	4,501
Plate Compactors	1	8	8	0.43	Building Construction Phase	162
Air Compressors	1	8	37	0.48	Building Construction Phase	835
Tractors/Loaders/Backhoes	1	8	97	0.37	Building Construction Phase	1,687
Rubber Tired Dozers	1	8	367	0.4	Building Construction Phase	6,208
Graders	1	8	148	0.41	Building Construction Phase	2,566
Excavators	1	8	36	0.38	Building Construction Phase	643
Dumpers/Tenders	1	8	16	0.38	Building Construction Phase	286
Tractors/Loaders/Backhoes	1	8	97	0.37	Trenching	1,012
Plate Compactors	1	8	8	0.43	Trenching	97
Cranes	1	8	367	0.29	Trenching	2,700
Dumpers/Tenders	1	8	16	0.38	Trenching	171
Graders	1	8	148	0.41	Trenching	1,540
Graders	1	8	148	0.41	Paving Phase	257
Pavers	1	8	81	0.42	Paving Phase	160
Paving Equipment	1	8	89	0.36	Paving Phase	151
Rollers	1	8	36	0.38	Paving Phase	64
Signal Boards	1	8	6	0.82	Paving Phase	23
Sweepers/Scrubbers	1	8	36	0.46	Paving Phase	78
					Total Fuel Used	**23,864 (Gallons)**

Construction Phase	Days of Operation
Site Preparation Phase	10
Grading Phase	30
Building Construction Phase	100
Paving Phase	10
Trenching	60
Total Days	210

WORKER TRIPS

Constuction Phase	MPG [2]	Trips	Trip Length (miles)	Fuel Used (gallons)
Site Preparation Phase	24.1	3	18.5	19.19
Grading Phase	24.1	5	18.5	115.15
Building Construction Phase	24.1	0	18.5	32.24
Paving Phase	24.1	15	18.5	115.15
Trenching	24.1	13	18.5	575.73
			Total	**857.45**

HAULING AND VENDOR TRIPS

Trip Class	MPG [2]	Trips	Trip Length (miles)	Fuel Used (gallons)
HAULING TRIPS				

Site Preparation Phase	7.5	1	20.0	3.20
Grading Phase	7.5	12	20.0	33.07
Building Construction Phase	7.5	0	20.0	0.00
Paving Phase	7.5	0	20.0	0.00
Trenching	7.5	0	20.0	0.00
		Total		**36.27**
		VENDOR TRIPS		
Site Preparation Phase	7.5	0	14.7	0.00
Grading Phase	7.5	0	14.7	0.00
Building Construction Phase	7.5	0	10.2	21.76
Paving Phase	7.5	0	14.7	0.00
Trenching	7.5	0	14.7	0.00
		Total		**21.76**

Total Gasoline Consumption (gallons)	**857**
Total Diesel Consumption (gallons)	**23,922**

Sources:

[1] United States Environmental Protection Agency. 2021. *Exhaust and Crankcase Emission Factors for Nonroad Compression-Ignition Engines in MOVES3.0.2* . September. Available at: https://www.epa.gov/system/files/documents/2021-08/420r21021.pdf.

[2] United States Department of Transportation, Bureau of Transportation Statistics. 2021. *National Transportation Statistics* . Available at: https://www.bts.gov/topics/national-transportation-statistics.

SCV Water Wells W9 and W10

Last Updated: 7/22/2025

Populate one of the following tables (Leave the other blank):

Annual VMT		OR	Daily Vehicle Trips	
Annual VMT:	80		Daily Vehicle Trips:	
			Average Trip Distance:	

Fleet Class	Fleet Mix
Light Duty Auto (LDA)	0.000000
Light Duty Truck 1 (LDT1)	0.000000
Light Duty Truck 2 (LDT2)	0.000000
Medium Duty Vehicle (MDV)	0.000000
Light Heavy Duty 1 (LHD1)	0.000000
Light Heavy Duty 2 (LHD2)	0.000000
Medium Heavy Duty (MHD)	0.000000
Heavy Heavy Duty (HHD)	1.000000
Other Bus (OBUS)	0.000000
Urban Bus (UBUS)	0.000000
Motorcycle (MCY)	0.000000
School Bus (SBUS)	0.000000
Motorhome (MH)	0.000000

Fuel Economy (MPG) [1]	
Passenger Vehicles	24.1
Light-Med Duty Trucks	17.6
Heavy Trucks/Other	7.5
Motorcycles	44

Fleet Mix

Vehicle Type	Percent	Fuel Type	Annual VMT: VMT	Vehicle Trips: VMT	Fuel Consumption (Gallons)
Passenger Vehicles	*0.00%*	*Gasoline*	0	0.00	0
Light-Medium Duty Trucks	*0.00%*	*Gasoline*	0	0.00	0
Heavy Trucks/Other	*100.00%*	*Diesel*	80	0.00	11
Motorcycle	*0.00%*	*Gasoline*	0	0.00	0

Total Gasoline Consumption (gallons)	**0**
Total Diesel Consumption (gallons)	**11**

Sources:

[1] United States Department of Transportation, Bureau of Transportation Statistics. 2021. National Transportation Statistics. Available at: https://www.bts.gov/topics/national-transportation-statistics.

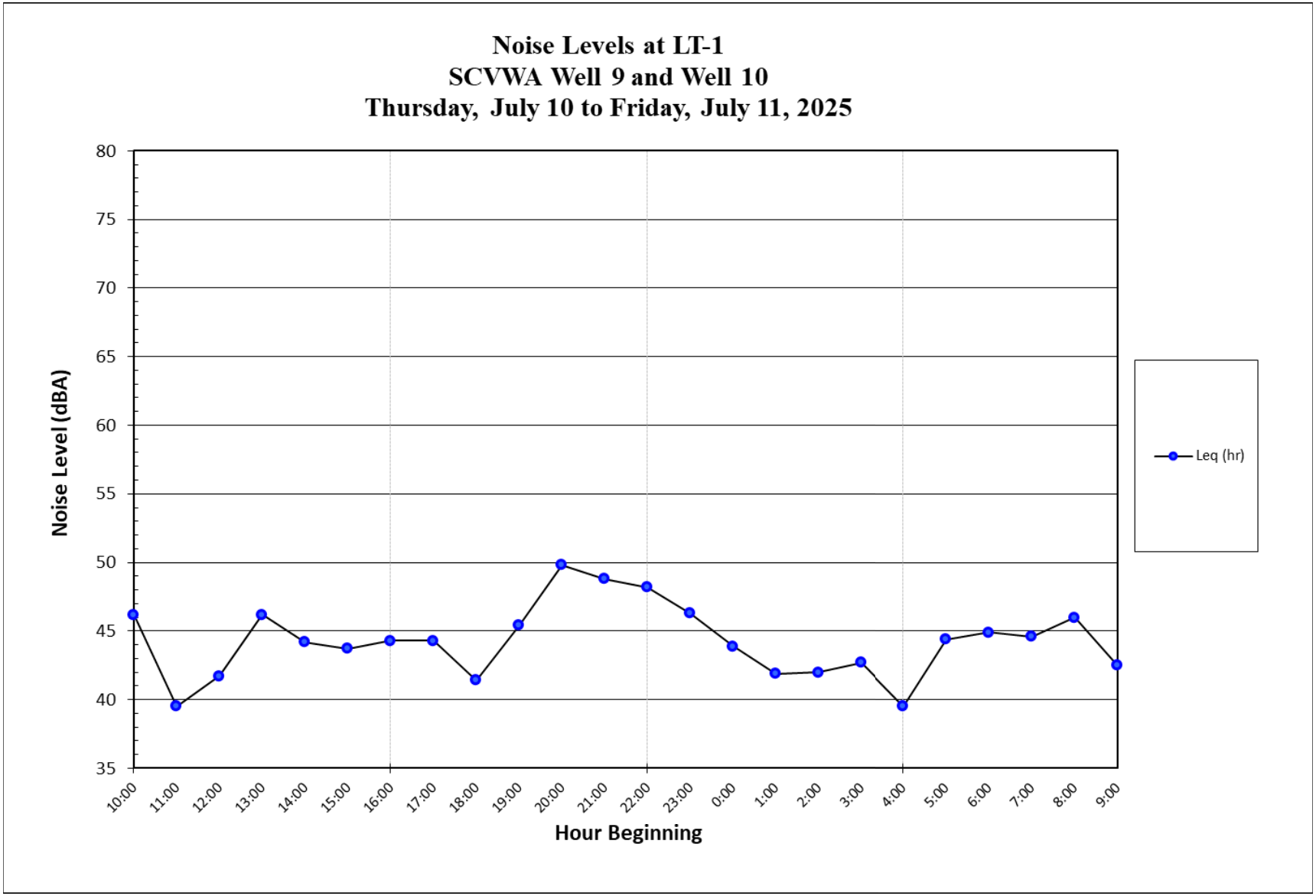
Appendix E

Sound Level Measurement Data and Noise Calculations

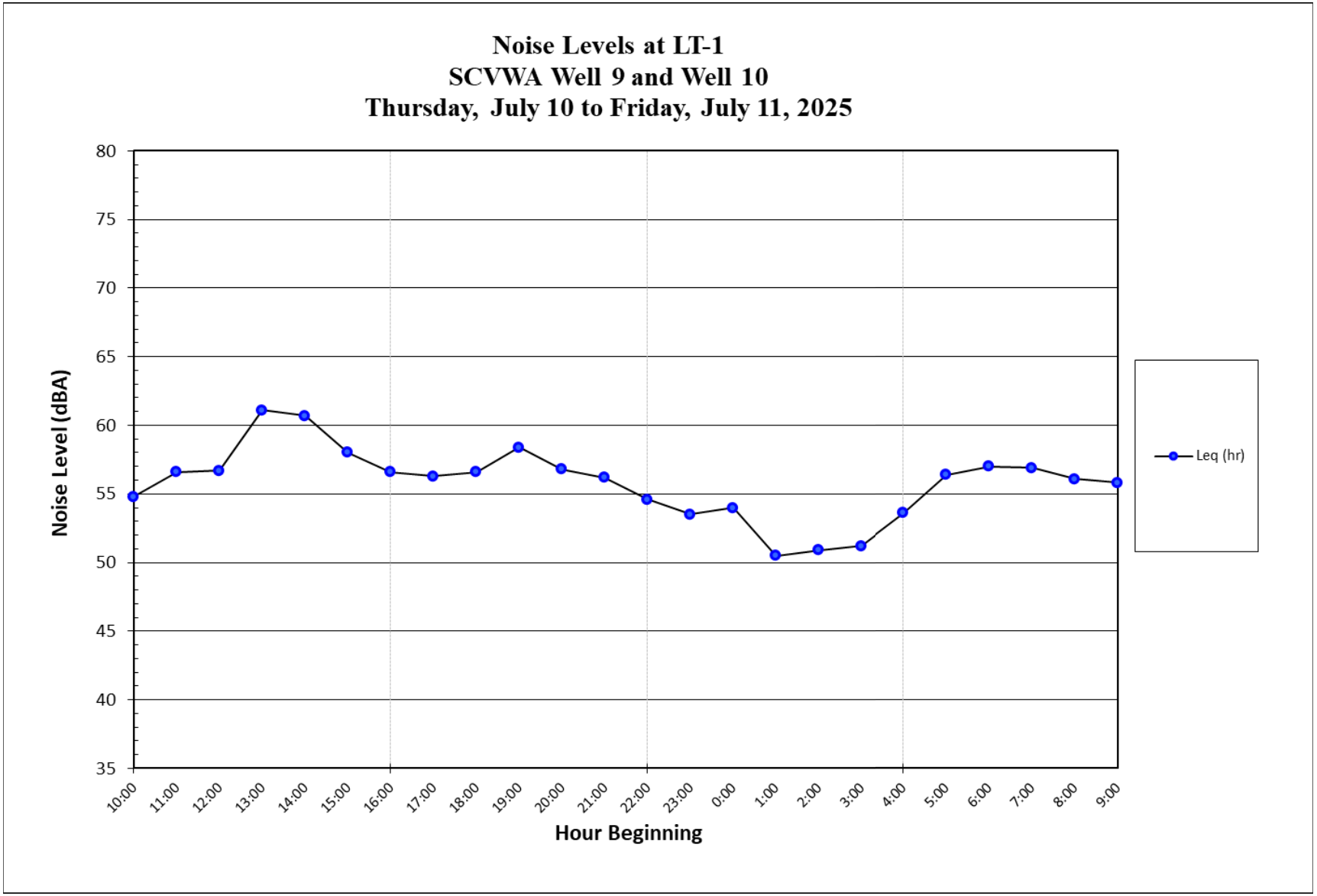
Appendix E

Noise Measurement Data

LT-1 CNEL


Noise Levels at LT-1
SCVWA Well 9 and Well 10
Thursday, July 10 to Friday, July 11, 2025
Noise Level (dBA)
80
75
70
65
60
55
50
45
40
35
10:00
11:00
12:00
13:00
14:00
15:00
16:00
17:00
18:00
19:00
20:00
21:00
22:00
23:00
0:00
1:00
2:00
3:00
4:00
5:00
6:00
7:00
8:00
9:00
Hour Beginning
Leq (hr)

LT-2 CNEL


Noise Levels at LT-1
SCVWA Well 9 and Well 10
Thursday, July 10 to Friday, July 11, 2025
Noise Level (dBA)
80
75
70
65
60
55
50
45
40
35
10:00
11:00
12:00
13:00
14:00
15:00
16:00
17:00
18:00
19:00
20:00
21:00
22:00
23:00
0:00
1:00
2:00
3:00
4:00
5:00
6:00
7:00
8:00
9:00
Hour Beginning
Leq (hr)

Appendix E-1

Roadway Construction Noise Model (RCNM) Results

Construction Noise

Distance	Noise Level @ 50 ft	Res on Pietro Drive to W	Res on Dickason Drive to W	Legacy Christian Academy to W
		70	80	35
Site Preparation	74	71.077	69.918	77.098
Grading and Excavation	78	75.077	73.918	81.098
Building Construction and In	83	80.077	78.918	86.098
Pipeline Installation	83	80.077	78.918	86.098
Paving and Site Restoration	82	79.077	77.918	85.098

Construction Vibration

Distance	Vibration @ 25 ft	Paseo Club Bldg	Residential Building on Pietro Drive
		20	70
Vibratory Roller	0.21	0.293	0.045
Large Bulldozer	0.089	0.124	0.019
Loaded Trucks	0.076	0.106	0.016
Small Bulldozer	0.003	0.004	0.001

Roadway Construction Noise Model (RCNM),Version 1.1

Report date: 07/07/2025
Case Description: Site Preparation

**** Receptor #1 ****

Description	Land Use	Baselines (dBA) Daytime	Evening	Night
Site Preparation	Residential	65.0	55.0	50.0

Equipment

Description	Impact Device	Usage (%)	Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Backhoe	No	40		77.6	50.0	0.0

Results

Noise Limits (dBA)

Noise Limit Exceedance (dBA)

Calculated (dBA)				Day		Evening		Night	
Equipment	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq
Backhoe	77.6	73.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total	77.6	73.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Roadway Construction Noise Model (RCNM),Version 1.1

Report date: 07/07/2025
Case Description: Grading_Excavation

**** Receptor #1 ****

Description	Land Use	Baselines (dBA) Daytime	Evening	Night
Grading_Excavation	Residential	65.0	55.0	50.0

Equipment

Description	Impact Device	Usage (%)	Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Compactor (ground)	No	20		83.2	50.0	0.0
Backhoe	No	40		77.6	50.0	0.0

Results

Noise Limits (dBA)

Noise Limit Exceedance (dBA)

Calculated (dBA)				Day		Evening		Night	
Equipment	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq
Compactor (ground)	83.2	76.2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Backhoe	77.6	73.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total	83.2	78.1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Roadway Construction Noise Model (RCNM),Version 1.1

Report date: 07/07/2025
Case Description: Building Construction_Infrastructure Installation

**** Receptor #1 ****

Description	Baselines (dBA) Land Use	Daytime	Evening	Night
Building Construction_Infrastructure Installation	Residential	65.0	55.0	50.0

Equipment

Description	Impact Device	Usage (%)	Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Dozer	No	40		81.7	50.0	0.0
Excavator	No	40		80.7	50.0	0.0
Gradall	No	40		83.4	50.0	0.0

Results

Noise Limits (dBA)

Noise Limit Exceedance (dBA)

Calculated (dBA)	Day		Evening		Night		Day		Evening		Night	
Equipment	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq
Dozer	81.7	77.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Excavator	80.7	76.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Gradall	83.4	79.4	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total	83.4	82.9	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Roadway Construction Noise Model (RCNM),Version 1.1

Report date: 07/07/2025
Case Description: Pipeline Installation

**** Receptor #1 ****

Description	Land Use	Baselines (dBA) Daytime	Evening	Night
Pipeline Installation	Residential	65.0	55.0	50.0

Equipment

Description	Impact Device	Usage (%)	Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Compactor (ground)	No	20		83.2	50.0	0.0
Grader	No	40	85.0		50.0	0.0
Backhoe	No	40		77.6	50.0	0.0

Results

Noise Limits (dBA)

Noise Limit Exceedance (dBA)

Equipment	Calculated (dBA) Day Lmax	Day Leq	Evening Lmax	Evening Leq	Night Lmax	Night Leq	Day Lmax	Day Leq	Evening Lmax	Evening Leq	Night Lmax	Night Leq
Compactor (ground)	83.2	76.2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Grader	85.0	81.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Backhoe	77.6	73.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total	85.0	82.8	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Roadway Construction Noise Model (RCNM),Version 1.1

Report date: 07/07/2025
Case Description: Paving_Site Restoration

**** Receptor #1 ****

Description	Land Use	Baselines (dBA) Daytime	Evening	Night
Paving_Site Restoration	Residential	65.0	55.0	50.0

Equipment

Description	Impact Device	Usage (%)	Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Grader	No	40	85.0		50.0	0.0
Paver	No	50		77.2	50.0	0.0
Roller	No	20		80.0	50.0	0.0

Results

Noise Limits (dBA)

Noise Limit Exceedance (dBA)

Night	Day	Calculated (dBA) Evening	Night	Day Evening	Night

Equipment	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq
Grader	85.0	81.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Paver	77.2	74.2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Roller	80.0	73.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total	85.0	82.4	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Appendix E-2

Operational Equipment (HVAC) Specifications

Product Data

WeatherExpert® Ultra High Efficiency Variable Speed Single Packaged Rooftop

3 to 5 Nominal Tons

ecoblue™ technology



48/50JC**04, 05, 06

48JC: Single-Package Gas Heating/Electric Cooling Rooftop Units
50JC: Electric Cooling Rooftop Units with Optional Electric Heat with Puron® Refrigerant (R-410A)

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Capacity ratings (cont)

Sound Ratings

UNIT	COOLING STAGES	OUTDOOR SOUND (dB) AT 60 Hz[a,b]								
		A-Weighted[c]	63	125	250	500	1000	2000	4000	8000
48/50JC*V04	Variable Speed	75.4	81.8	81.8	77.0	72.6	69.9	64.6	59.3	55.6
48/50JC*V05	Variable Speed	79.0	85.6	84.7	80.5	76.0	72.4	68.0	62.8	59.3
48/50JC*V06	Variable Speed	79.0	85.6	84.7	80.5	76.0	72.4	68.0	62.8	59.3

NOTE(S):

a. Outdoor sound data is measured in accordance with AHRI.
b. Measurements are expressed in terms of sound power. Do not compare these values to sound pressure values because sound pressure depends on specific environmental factors which normally do not match individual applications. Sound power values are independent of the environment and therefore more accurate.
c. A-weighted sound ratings filter out very high and very low frequencies, to better approximate the response of "average" human ear. A-weighted measurements for Carrier units are taken in accordance with AHRI.

LEGEND

dB — Decibel

Minimum - Maximum Airflow Ratings (cfm) — Natural Gas and Propane

UNIT	HEAT LEVEL	VOLTAGE	COOLING		AL HX HEATING		SS HX HEATING	
			Minimum Airflow (cfm)	Maximum Airflow (cfm)	Minimum Airflow (cfm)	Maximum Airflow (cfm)	Minimum Airflow (cfm)	Maximum Airflow (cfm)
48JC04**	LOW	3 Phase	600	1500	910	2010	910	2010
	MED				960	1630	960	1630
	HIGH				—	—	—	—
48JC05**	LOW	3 Phase	800	2000	910	2010	910	2010
	MED				1250	2330	1250	2330
	HIGH				1390	2220	1390	2220
48JC06**	LOW	3 Phase	1000	2500	910	2510	910	2510
	MED				1250	2720	1250	2720
	HIGH				1390	2780	1390	2780

Minimum - Maximum Airflow Ratings (cfm) — Cooling Units and Accessory Electric Heat

UNIT	COOLING		ELECTRIC HEAT[a]	
	Minimum Airflow (cfm)	Maximum Airflow (cfm)	Minimum Airflow (cfm)	Maximum Airflow (cfm)
50JC04**	600	1500	900	1500
50JC05**	800	2000	1200	2000
50JC06**	1000	2500	1500	2500

NOTE(S):

a. Electric heat modules are available as both factory-installed options or field-installed accessories for 50JC units.

Heat Rating — Natural Gas and Propane

UNIT	GAS HEAT	AL/SS HEAT EXCHANGER		TEMPERATURE RISE (°F)	THERMAL EFFICIENCY (%)	AFUE EFFICIENCY (%)
		Input/Output Stage 1 (MBH)	Input/Output Stage 2 (MBH)			
48JC04**	LOW	50/40	67/54	25-55	81	—
	MED	82/65	110/88	50-85	80	—
	HIGH	—	—	—	—	—
48JC05**	LOW	50/40	67/54	25-55	81	—
	MED	82/65	110/88	35-65	80	—
	HIGH	120/96	150/120	50-80	80	—
48JC06**	LOW	50/40	67/54	20-55	81	—
	MED	82/65	110/88	30-65	80	—
	HIGH	120/96	150/120	40-80	80	—