



Addendum to Mission Village Environmental Impact Report

SCH# 2005051143

Backcountry Reservoir and Pump Station Project

Prepared for:

Santa Clarita Valley Water Agency
26521 Summit Circle
Santa Clarita, CA 91350

Prepared by:



**Woodard
& Curran**

24422 Avenida de la Carlota, Suite 180
Laguna Hills, CA 92653
949.420.5300

woodardcurran.com

COMMITMENT & INTEGRITY DRIVE RESULTS

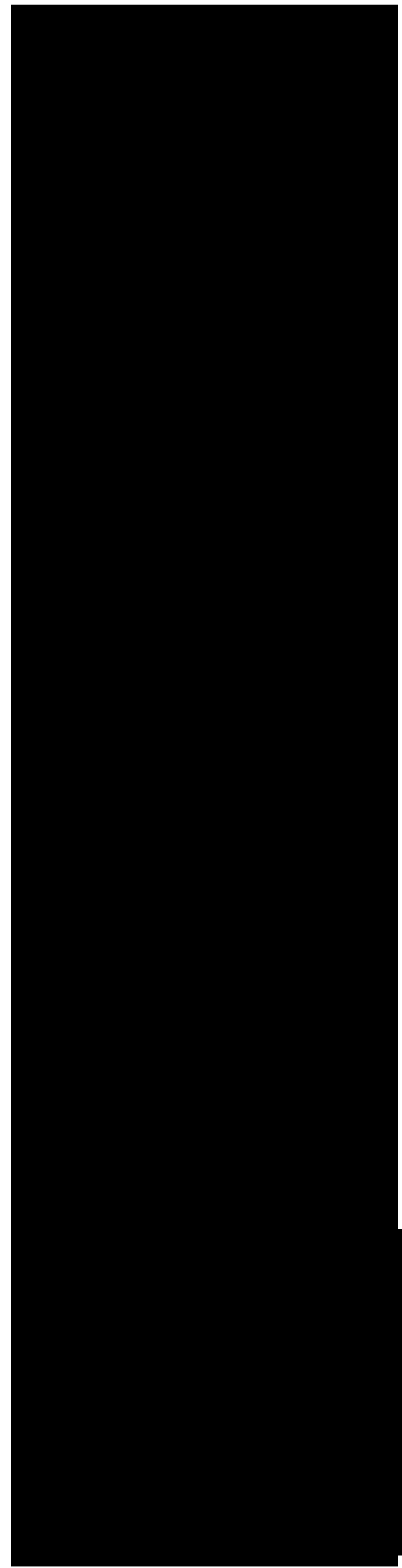


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List of Abbreviations

AQMP	Air Quality Management Plan
BMPs	best management practices
CAAQS	California Ambient Air Quality Standards
CalEEMod	California Emissions Estimator Model
CARB	California Air Resources Boards
CCAP	Los Angeles County Community Climate Action Plan
CCR	California Code of Regulations
CDFW	California Department of Fish and Wildlife
CEQA	California Environmental Quality Act
CGS	California Geological Survey
CHRIS	California Historical Resources Information System
CLWA	Castaic Lake Water Agency
CO	carbon monoxide
County	Los Angeles County
CRAAs	Coastal Resource Areas
E&O Study	Emergency and Operational Storage Study
EIR	Environmental Impact Report
GHG	greenhouse gas
I-5	Interstate 5
LACDPW	County of Los Angeles Department of Public Works
LSTs	Localized Significance Thresholds
LUT	Land Use and Transportation
MG	million-gallon
Mission Village EIR	Mission Village Final Environmental Impact Report
MND	mitigated negative declaration
MT CO _{2e}	metric tons of carbon dioxide equivalent
MV	Mission Village
NAAQS	National Ambient Air Quality Standards
ND	negative declaration
NOP	Notice of Preparation
NO _x	nitrogen oxide
NPDES	National Pollutant Discharge Elimination System
O&M	operation and maintenance
O ₃	Ozone
Pb	Lead
PM ₁₀	particulate matter 10 micrometers or less in diameter
PM _{2.5}	particulate matter 2.5 micrometers or less in diameter
PRC	Public Resources Code
Project	Backcountry Reservoir and Pump Station Project
RMP	Resource Management Plan
RTP/SCS	Regional Transportation Plan / Sustainable Communities Strategy
RWQCB	Regional Water Quality Control Board, Los Angeles Region

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SCAB	South Coast Air Basin
SCADA system	supervisory control and data acquisition system
SCAG	Southern California Association of Governments
SCAQMD	South Coast Air Quality Management District
SCE	Southern California Edison
SCH	State Clearinghouse
SCV Water	Santa Clarita Valley Water Agency
SEA	Significant Ecological Area
SMA	Special Management Area
SO _x	sulfur oxides
Specific Plan or SP	Newhall Ranch Specific Plan
SR	State Route
SRA	State Responsibility Area
SRA _s	source receptors areas
SWPPP	Storm Water Pollution Prevention Plan
SWRCB	State Water Resources Control Board
USACE	United States Army Corps of Engineers
VHFHSZ	Very High Fire Hazard Severity Zone
VOCs	volatile organic compounds

1. INTRODUCTION

1.1 Purpose of Addendum

This document, prepared pursuant to the California Environmental Quality Act (CEQA), Public Resources Code (PRC) Section 21000 et seq., is an Addendum to Mission Village Final Environmental Impact Report (EIR) certified by Los Angeles County (County) on October 25, 2011 (State Clearinghouse [SCH] No. 2005051143) (referred to hereafter as the “Mission Village EIR”). The Mission Village development is one of five villages within the Newhall Ranch Specific Plan (Specific Plan), a 12,000-acre large-scale mixed-use community located in unincorporated Los Angeles County. The Newhall Ranch Specific Plan and Final Newhall Ranch Specific Plan Program Environmental Impact Report (SCH# 199501115) were approved and certified by Los Angeles County in 2003 (County of Los Angeles, 2003). The Mission Village EIR was tiered from the Newhall Ranch Specific Plan Program EIR. As part of the certifications, the County of Los Angeles adopted Findings of Fact, Statement of Overriding Considerations and a Mitigation Monitoring and Reporting Program for both the Newhall Ranch Specific Plan Program EIR and the Mission Village EIR. A portion of the Mission Village EIR was recirculated in 2016, and certified in 2017 by Los Angeles County to fully address global climate change in response to litigation, and to address revisions to mitigation measures that would avoid impacts to or “take” of unarmored threespine stickleback, a fully protected fish species under the California Department of Fish and Game Code.

The 2011 Mission Village EIR analyzed the environmental impacts of the proposed 1,262-acre Mission Village development consisting of 4,055 homes, 1,555,100 square feet of commercial uses, an elementary school, library, fire station, bus transfer station, and open space, and supporting facilities and infrastructure, including roads, the Commerce Center Drive bridge, trails, drainage improvements, flood protection, potable and recycled water facilities, sanitary sewer system, and dry utilities systems. The Mission Village EIR also addressed several off-site project-related components that would be developed on an additional 592 acres of land, which consisted of a utility corridor, roadway extensions, three water tanks, electrical substation and associated utility lines and poles, and a water quality basin. The currently proposed Backcountry Reservoir is one of three proposed water storage tanks identified in the Mission Village EIR. A new pump station, the Backcountry Pump Station, is proposed to supply water to the Backcountry Reservoir and also includes a turn-out facility with distribution pipelines to tie into existing water mains. The Mission Village EIR and this Addendum, together with the other documents incorporated by reference herein, serve as the environmental review of the Backcountry Reservoir and Pump Station Project (together the “proposed Project”), as required pursuant to the provisions of CEQA, the CEQA Guidelines, 14 California Code of Regulations (CCR) Section 15000 et seq).

This Addendum addresses potential environmental effects of the construction and operation of the proposed Project which consists of the Backcountry Reservoir and associated Backcountry Pump Station, including turn-out facility and distribution pipelines proposed by the Santa Clarita Valley Water Agency (SCV Water). As described below, the evaluation of the proposed Project has determined that the impacts are consistent with the impacts of the water storage facilities evaluated in the Mission Village EIR and there are no new significant impacts resulting from development of the reservoir and associated pump station, nor are there any substantial increases in the severity of any previously identified environmental impacts. Feasible mitigation measures and alternatives identified in the EIR would be incorporated into the resolutions approving the proposed Project.

1.2 Basis for Addendum

Section 15164 of the CEQA Guidelines states: “The lead agency or responsible agency shall prepare an addendum to a previously certified EIR if some changes or additions are necessary but none of the

conditions described in Section 15162 calling for the preparation of a subsequent EIR have occurred.” Pursuant to Section 15162 of the CEQA Guidelines, no subsequent EIR may be required for the project unless the lead agency determines, on the basis of substantial evidence, that one or more of the following conditions are met:

When an EIR has been certified or a negative declaration adopted for a project, no subsequent EIR shall be prepared for that project unless the lead agency determines, on the basis of substantial evidence in the light of the whole record, one or more of the following:

- Substantial changes are proposed in the project which would require major revisions of the previous EIR or negative declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects;
- Substantial changes occur with respect to the circumstances under which the project is undertaken which would require major revisions of the previous EIR or negative declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects; or
- New information of substantial importance, which was not known and could not have been known with the exercise of reasonable diligence at the time the previous EIR was certified as complete or the negative declaration was adopted, shows any of the following:
 - The project would have one or more significant effects not discussed in the previous EIR or negative declaration;
 - Significant effects previously examined would be substantially more severe than shown in the previous EIR;
 - Mitigation measures or alternatives previously found not to be feasible would in fact be feasible, and would substantially reduce one or more significant effects of the project, but the project proponents decline to adopt the mitigation measure or alternative; or
 - Mitigation measures or alternatives which are considerably different from those analyzed in the previous EIR would substantially reduce one or more significant effects on the environment, but the project proponents decline to adopt the mitigation measure or alternative.

As discussed in this Addendum, none of the conditions requiring preparation of a subsequent EIR under Section 15162 of the CEQA Guidelines are satisfied. However, because additional detail is now available regarding construction and operation of the proposed water storage tank originally evaluated in the Mission Village EIR (including a necessary pump station), it is possible to more specifically address the impacts of the proposed Project, and an Addendum is the appropriate level of environmental documentation for this review per CEQA Guidelines Sections 15164.

1.3 Previous Environmental Documentation

The Backcountry Reservoir component of the proposed Project is located within the proposed Mission Village development. The Mission Village EIR included the following discretionary entitlements to allow for the construction of the proposed Mission Village development on the project site:

- (a) Vesting Tentative Tract Map No. 061105;

- (b) Significant Ecological Area (SEA) Conditional Use Permit No. RCUP200500080 for project-level development, including utilities within the Specific Plan's River Corridor Special Management Area (SMA)/SEA 23 boundaries;
- (c) Conditional Use Permit RCUP200500081 to authorize:
 - (i) development of 73 second dwelling units, and
 - (ii) grading associated with the extension of Westridge Parkway and the construction of off-site improvements, including the extension of Magic Mountain Parkway, a utility corridor, a water quality basin, an electrical substation, and water tanks;
- (d) Oak Tree Permit No. ROAK200500032 (project site);
- (e) Oak Tree Permit No. T200500043 (off-site extension of Magic Mountain Parkway);
- (f) Substantial conformance determination pertaining to Grading and Hillside Management Guidelines;
- (g) Parking Permit RPKT200500011;
- (h) Substantial conformance determination for setback standards;
- (i) Substantial conformance determination for off-site, reciprocal, and shared parking; and
- (j) Substantial conformance determination for proposed trails sections.

Most of the potentially significant environmental impacts identified in the Mission Village EIR were determined to be less than significant or were reduced to a level that is considered less than significant through either the adoption of mitigation measures or the incorporation of project revisions that would avoid or substantially lessen significant impacts. However, significant, unavoidable impacts to several environmental resources were identified, even with implementation of feasible mitigation measures. These included biota, visual qualities, construction noise (if pile driving is necessary), air quality, solid waste services, and agricultural resources. For those impact areas, the County prepared Findings of Fact and adopted a Statement of Overriding Considerations.

1.4 Evaluation of Environmental Impacts

This Addendum uses an Environmental Checklist Form, pursuant to Section 15063(d)(3) of the CEQA Guidelines, that compares the anticipated environmental effects of the proposed Project with those disclosed in the Mission Village EIR, and reviews whether any of the conditions requiring preparation of a Subsequent EIR pursuant to Section 15162 of the CEQA Guidelines are met, and whether there are new significant impacts resulting from the proposed Project. The Environmental Checklist Form is used to review the potential environmental effects of the proposed Project for each of the following areas:

- Aesthetics;
- Agriculture and Forestry Resources;
- Air Quality;
- Biological Resources;
- Cultural Resources;
- Geology and Soils;

Greenhouse Gas Emissions;
Energy;
Hazards and Hazardous Materials;
Hydrology and Water Quality;
Land Use and Planning;
Mineral Resources;
Noise;
Population and Housing;
Public Services;
Recreation;
Transportation and Traffic;
Tribal Cultural Resources;
Utilities and Service Systems; and
Wildfire Risk.

There are four possible responses to each of the questions included on the Environmental Checklist Form:

- New Potentially Significant Impact
- New Mitigation Required
- No New Impact/No Impact
- Reduced Impact

1.5 Summary of Findings

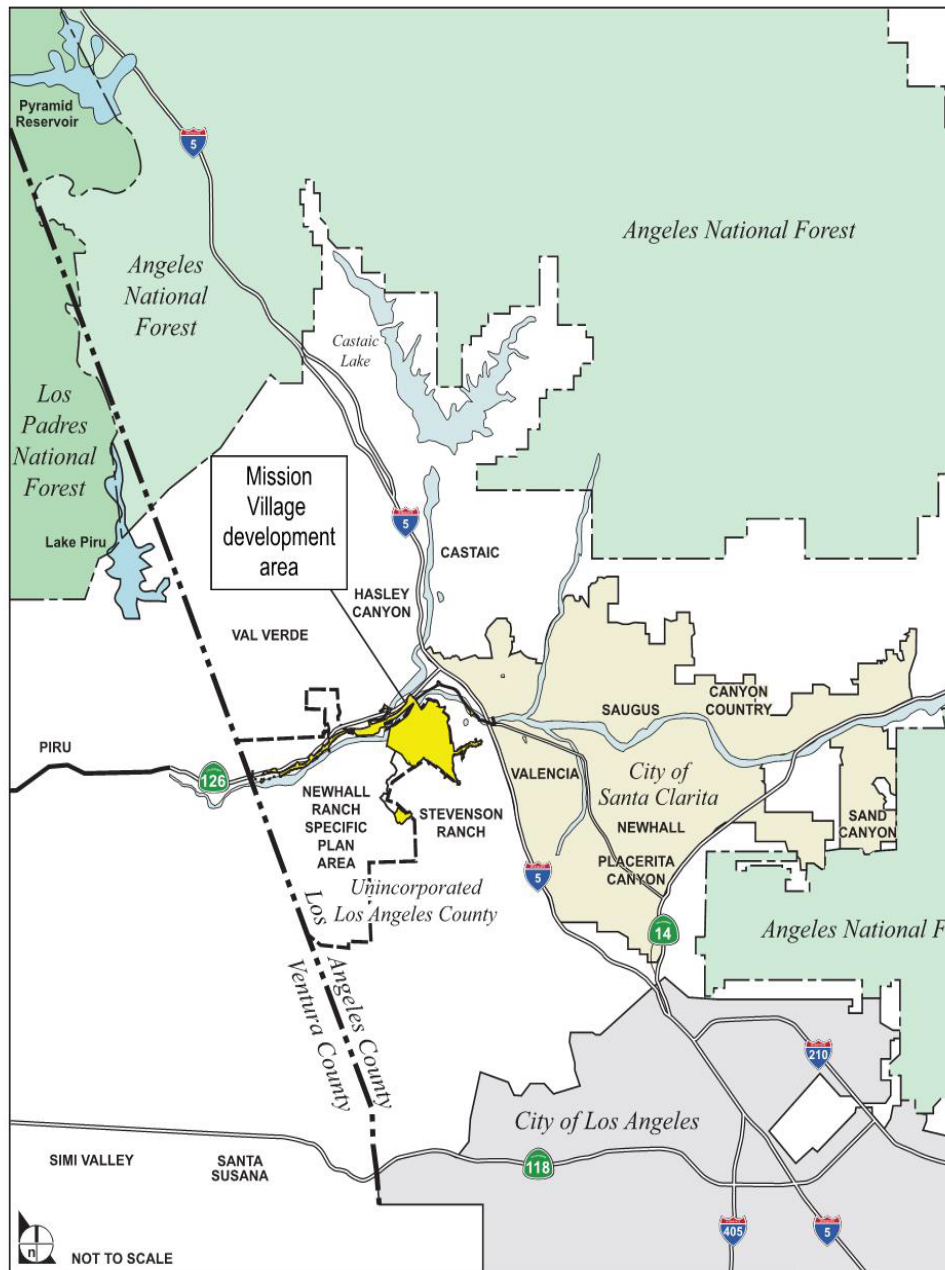
The proposed Project does not represent a substantial change in the Mission Village development requiring major revisions to the EIR, nor does it result in a substantial change in circumstances requiring major revisions to the EIR. Based on the Environmental Checklist and discussions found in Section 5 of this Addendum, the proposed Project would not result in any new significant impacts that were not previously identified in the Mission Village EIR and no new mitigation measures are required.

2. PROJECT DESCRIPTION

2.1 Background and Overview of Project

The Backcountry Reservoir site is located within SCV Water's southwest service area, at the southern edge of the 1,262-acre Mission Village development project. Mission Village is located south of the Santa Clara River and State Route 126 and west of Interstate-5 within the Newhall Ranch Specific Plan area of Los Angeles County, as shown in **Figure 2-1**.

Figure 2-1: Vicinity Map



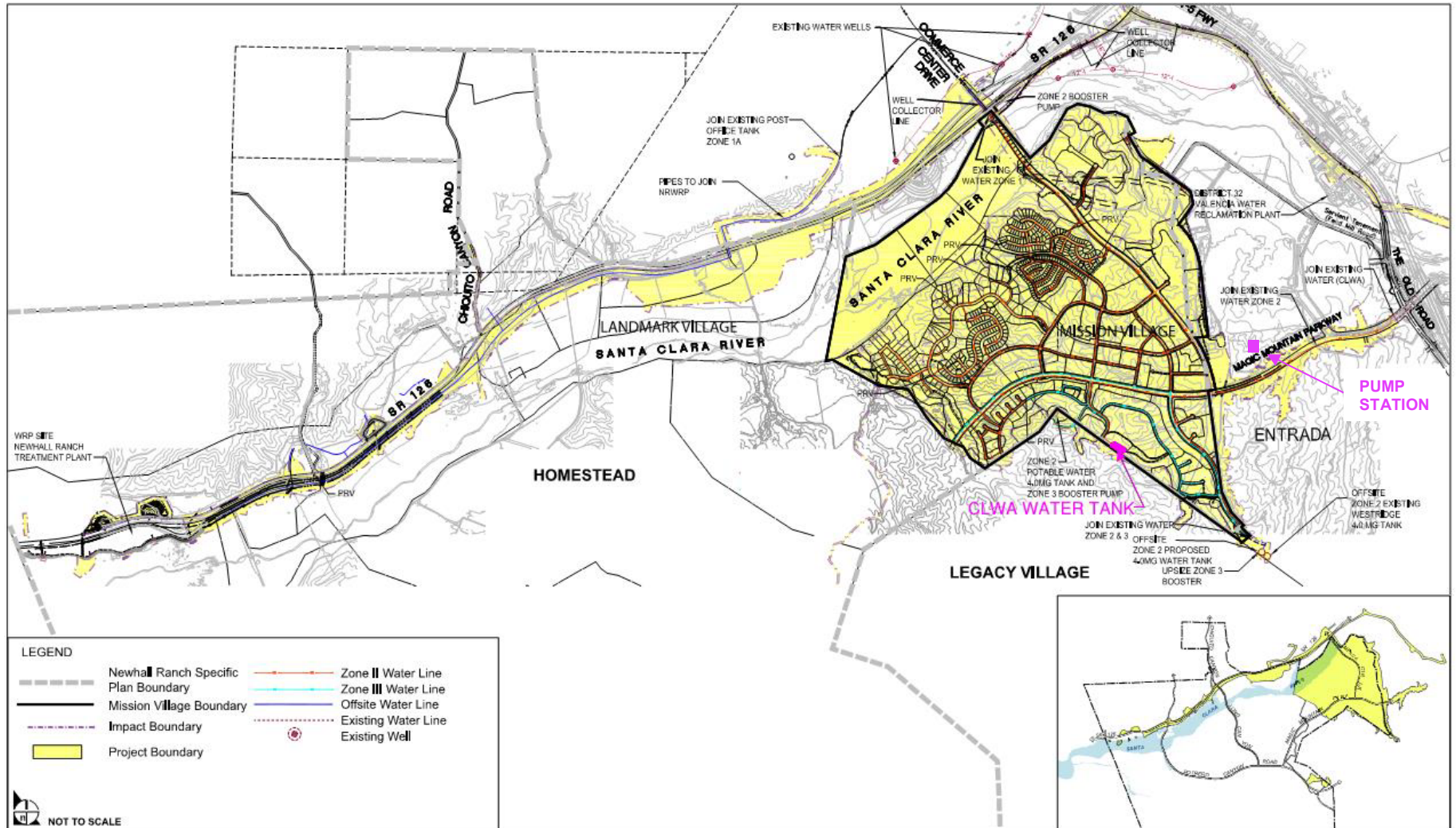
Source: Mission Village Draft EIR Volume I, Figure 1.0-2 (County of Los Angeles, 2010a)

A potable water tank at the Backcountry Reservoir site was addressed in the 2010 Mission Village Draft EIR and was referred to as the Castaic Lake Water Agency (CLWA) water tank site (See **Figure 2-2**). Although sizing and other details regarding the design of the tank were not identified in the Mission Village EIR, the tank was assumed to be above ground. The Final Mission Village EIR (SCH No. 2005051143) was certified by the Los Angeles County Board of Supervisors in 2011, although a portion of the EIR was recirculated in 2016 to fully address global climate change as well as revisions to two biological resource mitigation measures. The tank site was designated as “Public Facility – Water Tank” in the Mission Village Land Use Plan (**Figure 2-3**).

Although the Mission Village EIR was tiered from the Newhall Ranch Specific Plan Program EIR to address project-level development and related infrastructure impacts, no specific water tank design, construction, or operational details were described in the Mission Village EIR because project-specific details of the water tank were unknown at the time. However, the EIR’s evaluation of site environmental resources included the tank site parcel, and development of a tank at that location was specified in the project description and accounted for in overall impact evaluation of development within the Mission Ranch boundary.

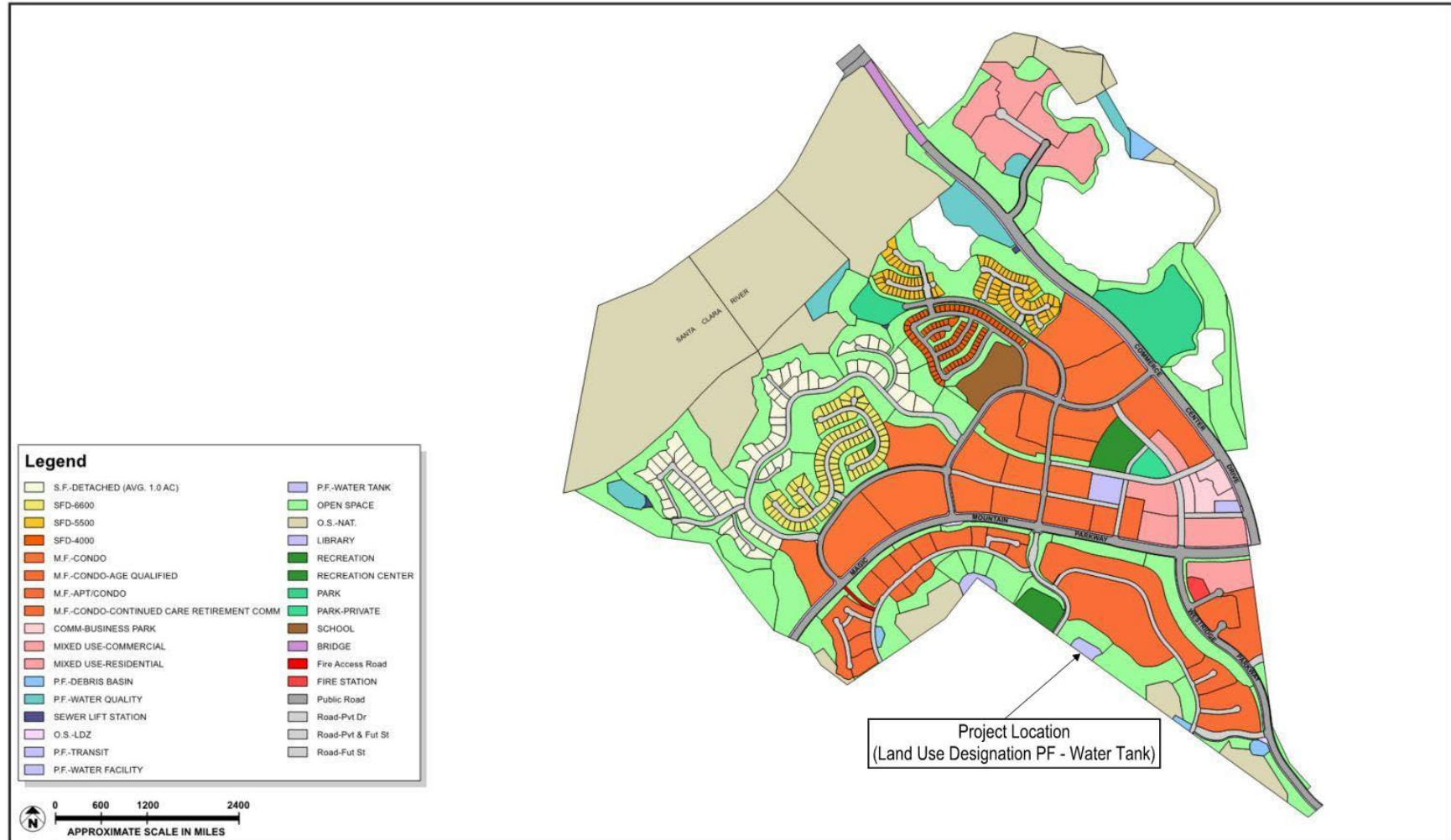
Rough grading of the approximately 1-acre tank site was included in the Mission Village TR 61105-01 Rough Grading Plan, shown in **Figure 2-4**. The grading plan was approved by the Los Angeles County Department of Public Works on May 7, 2018, and grading of the site has since been completed.

Figure 2-2: Backcountry Reservoir (CLWA Water Tank) Project Location

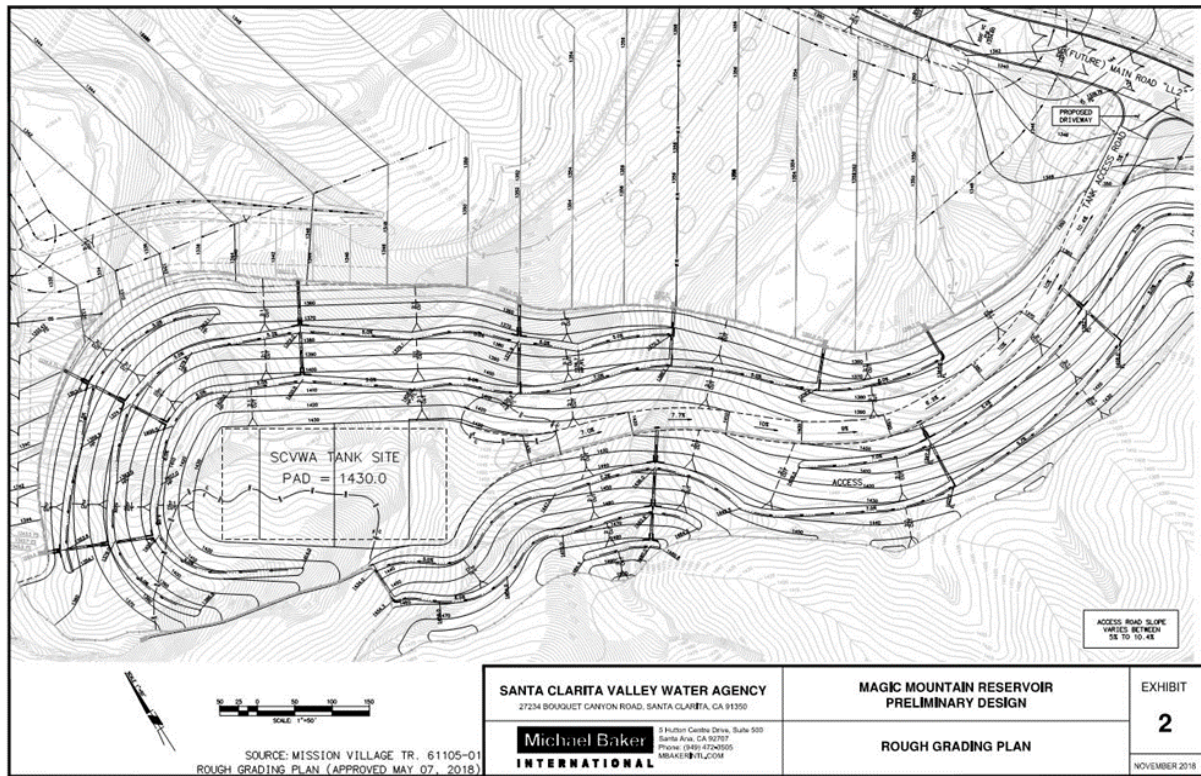


Source: Adapted from Mission Village Draft EIR Volume I, Figure 1.0-29 (County of Los Angeles, 2010a)

Figure 2-3: Mission Village Land Use



Source: Mission Village Recirculated Portions of EIR, Figure 1.0-1 (County of Los Angeles, 2016)

Figure 2-4: Backcountry Reservoir – Rough Grading Plan

Source: Magic Mountain Reservoir Preliminary Design Technical Memorandum (Michael Baker International, 2018)

In order to supply water to the Backcountry Reservoir, a pump station would be required. Details regarding a pump station were also unknown at the time that the Mission Village EIR was developed. A pump station location was subsequently identified at an undeveloped parcel located along Magic Mountain Parkway, approximately 0.5 miles east of Interstate 5 within the City of Santa Clarita. The Backcountry Pump Station would pump water to the existing Magic Mountain Pipeline, which passes through the pump station site, for conveyance to the Backcountry Reservoir. The pump station would be located on the northeastern portion of the parcel, and new inlet and outlet piping would be constructed on site to connect to the Magic Mountain Pipeline (**Figure 2-5**). A turnout facility (V-9 Turnout) is proposed at the Backcountry Pump Station to provide flow control and metering. Two water distribution pipelines are proposed from the V-9 Turnout to tie into SCV Water’s existing distribution mains for Zone IIA-N and Zone I (**Figure 2-6**). The Backcountry Pump Station location is approximately 2 miles from the Backcountry Reservoir site and outside the Mission Village Land Use Plan area and Newhall Ranch Specific Plan area (**Figure 2-2**). The pump station site is designated as “Business Park” by the City of Santa Clarita general plan and zoning code (**Figure 2-7**).

Figure 2-5: Backcountry Pump Station Overview

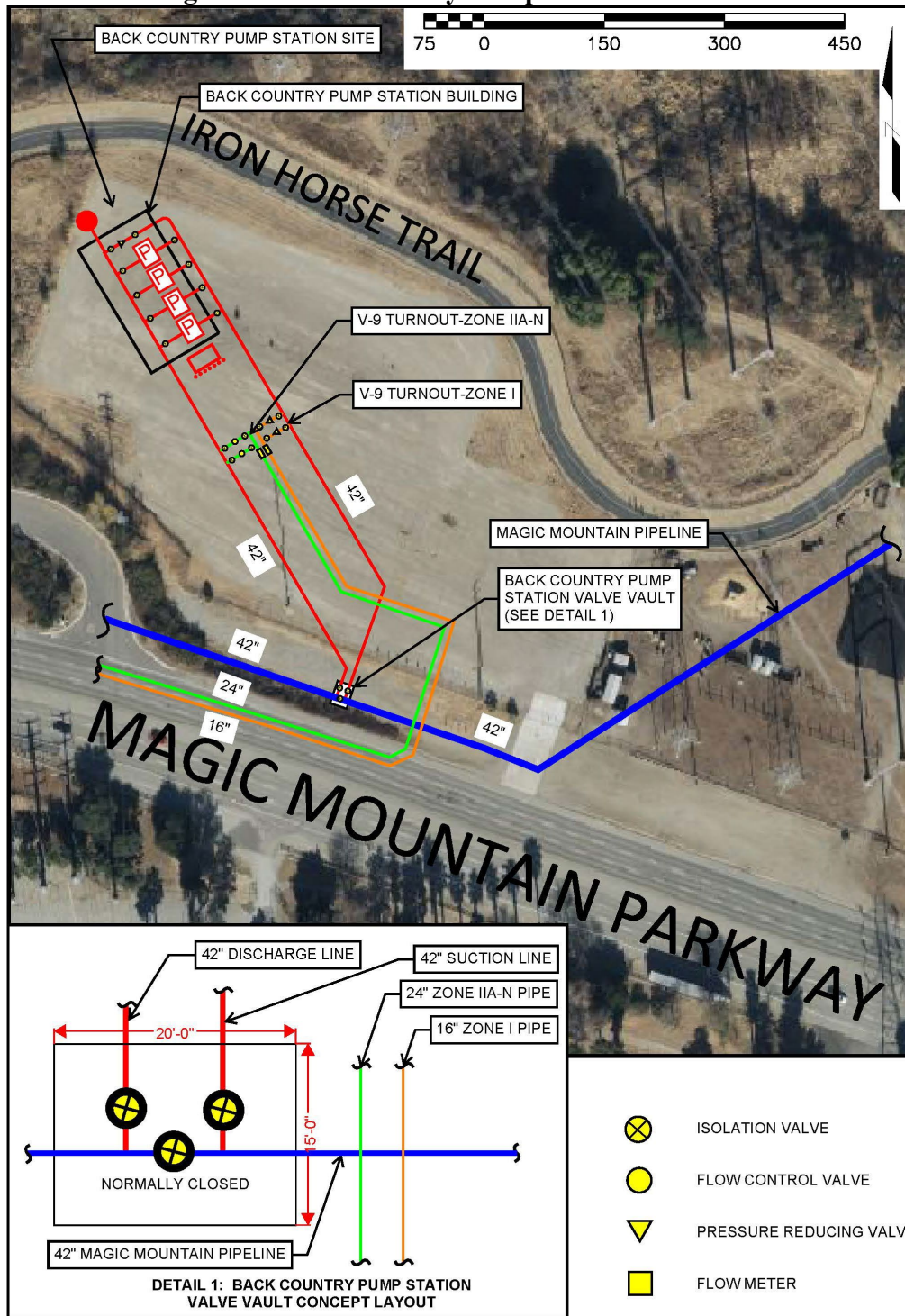
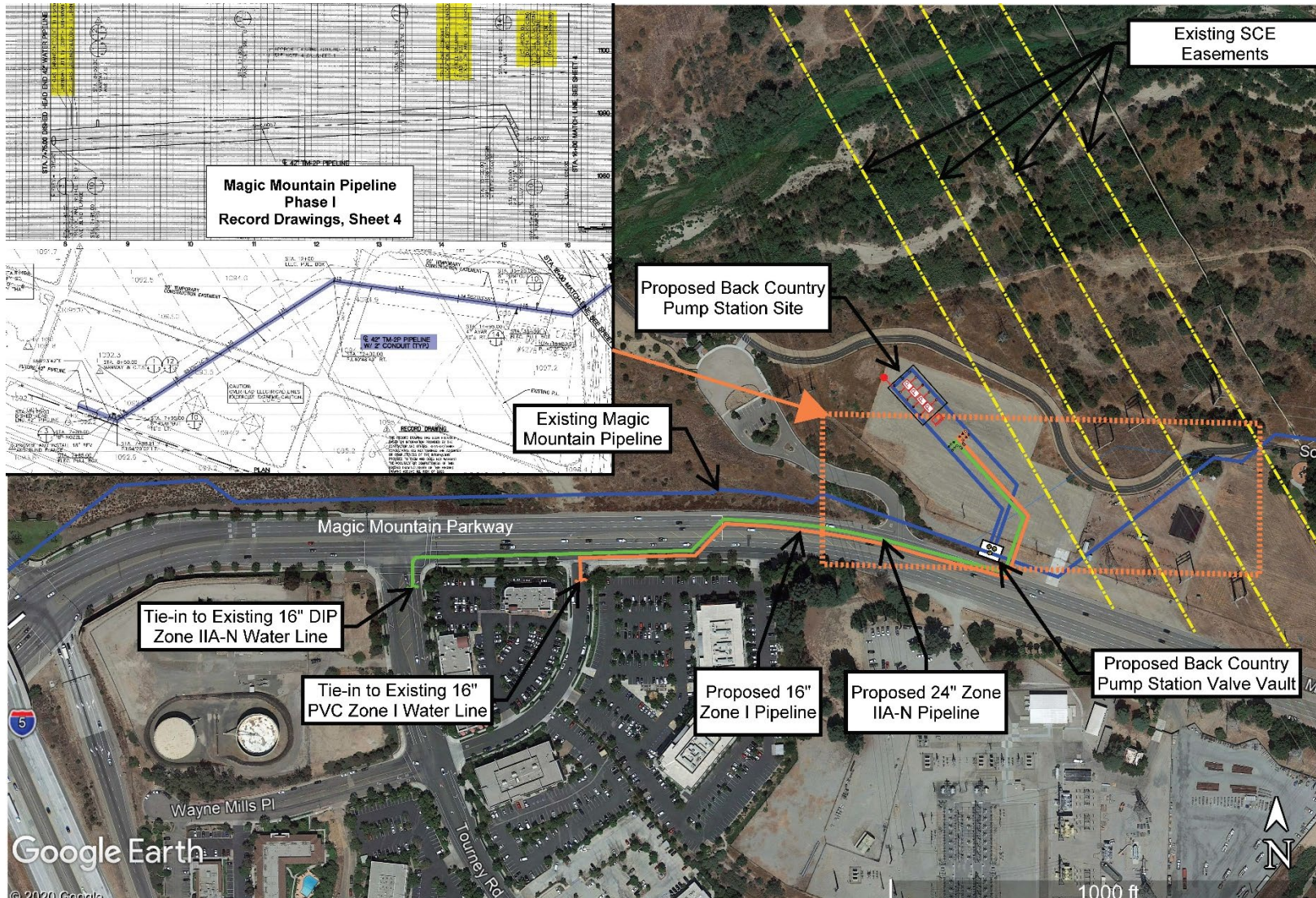
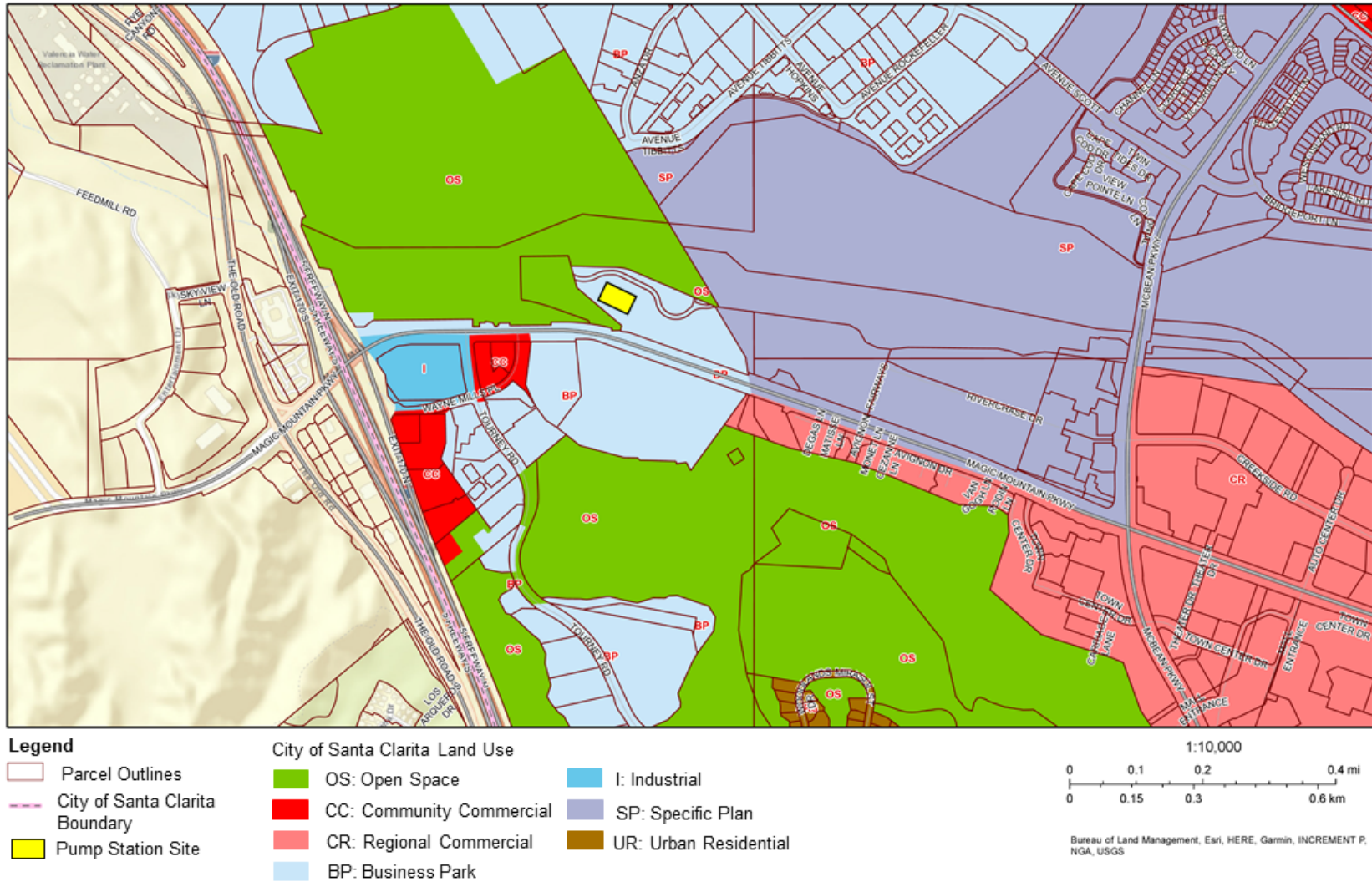


Figure 2-6: Backcountry Pump Station and Distribution Pipelines Overview



Source: Southwest Area Hydraulic Analysis Technical Memorandum, Draft (Michael Baker International, 2022b)

Figure 2-7: Backcountry Pump Station Land Use



2.2 Purpose of Project

SCV Water requires operational and emergency storage of potable water to supply its West Site system (Magic Mountain Zone) and during short-term outage or disruptions to the regional water supply system. The primary vulnerabilities to the regional water supply system are major earthquakes and streambed scour. In March 2017, Michael Baker International prepared an “Emergency and Operational Storage Study” (E&O Study) for the CLWA (now SCV Water). This study evaluated SCV Water’s current and future potable water demands and storage requirements based on five geographical Service Areas. For each service area, the study identified several potential sites for potable water storage improvements. The 7.9 million-gallon (MG) Backcountry Reservoir is planned for one of these sites in the Zone B/Magic Mountain Zone. Operational storage requirements are based on the maximum day demand scenario.

Total operation and emergency storage needs for the Zone B/Magic Mountain Zone identified in the E&O Study are estimated to be 25.9 MG by year 2050. The proposed Project would create 7.9 MG of E&O storage and the remaining 18.0 MG would be added over time through one or more additional reservoirs. It is currently unknown when and where such reservoirs might be constructed, or what their exact capacity might be. The construction of the Backcountry Reservoir is not dependent on the construction of any other reservoirs. The Backcountry Reservoir has independent utility (Michael Baker International, 2018).

2.3 Existing Environmental Setting

Surrounding Location

The Backcountry Reservoir site is located within Mission Village, a developing community located within the northeastern corner of the Newhall Ranch Specific Plan area within unincorporated Los Angeles County, approximately 40 miles inland from the Pacific Ocean. Mission Village is within Santa Clarita Valley Planning Area of the Los Angeles County General Plan. As stated in the Mission Village EIR, the Santa Clarita Valley Planning Area is generally surrounded by the Los Padres and Angeles National Forest areas to the north; Agua Dulce and the Angeles National Forest to the east; the major ridgeline of the Santa Susana Mountains to the south; and the County of Ventura to the west. The Mission Village development area is located immediately southeast of the confluence of Castaic Creek and the Santa Clara River. The Santa Clara River forms the northern boundary of the Mission Village development, and the Six Flags Magic Mountain Theme Park is located along the east boundary (**Figure 2-8**). The City of Santa Clarita is located east of the Mission Village development, just beyond Interstate 5. There are no officially designated state scenic highways in the vicinity of the Mission Village development. There are no tribal trust boundaries, tribal trust lands, or any United States Forest Service, Bureau of Land Management, or other federally managed land within the Mission Village area.

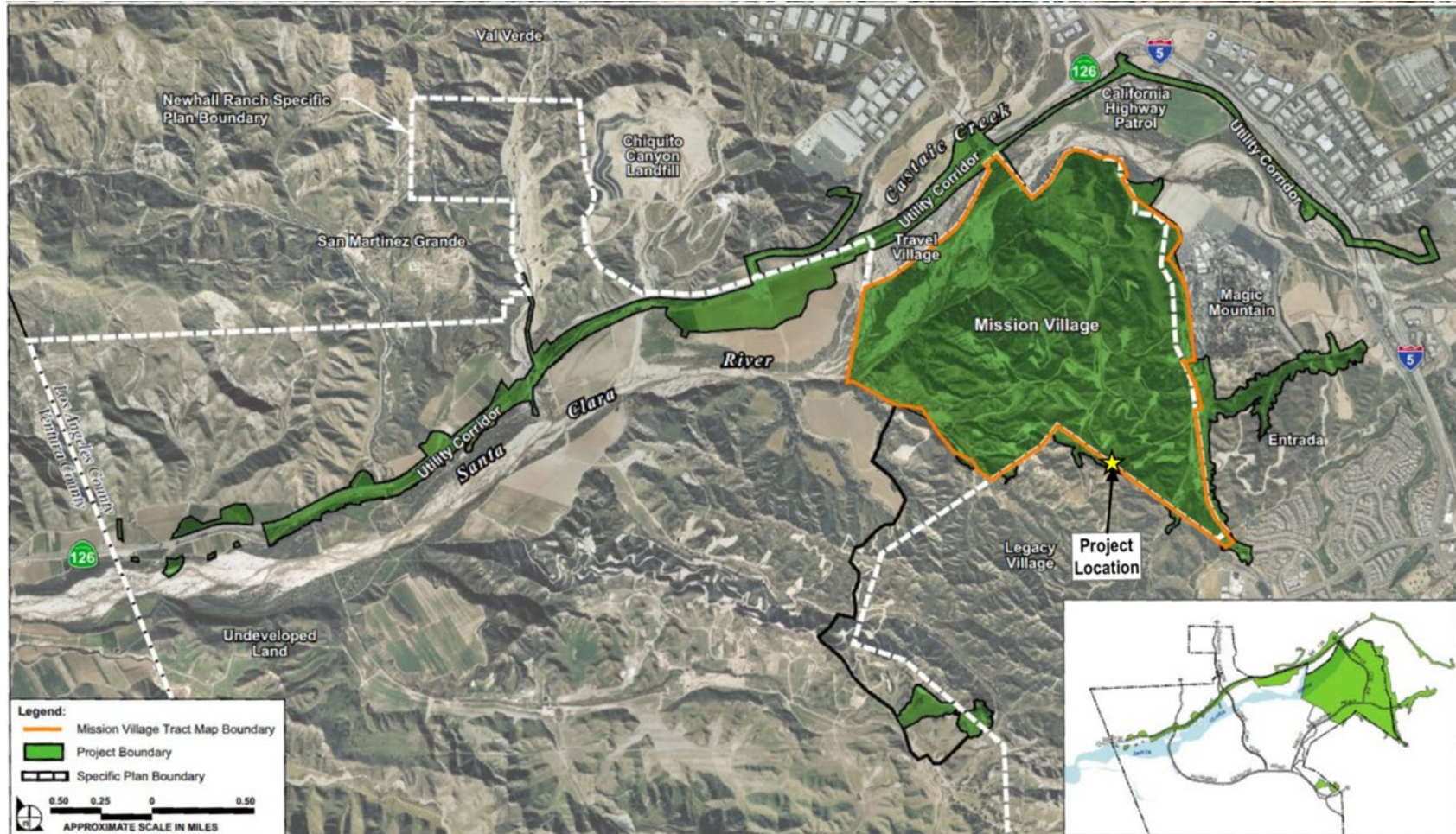
The Backcountry Pump Station would be located within the incorporated boundaries of the City of Santa Clarita, north of Magic Mountain Parkway, south of the Santa Clara River, approximately 0.5 mile east of Interstate 5. The pump station site is approximately 2 miles east/north-east of site for the Backcountry Reservoir. The Santa Clarita Valley is within the 1,600 square mile Santa Clara River Watershed. The groundwater basin of the Santa Clara River Valley, East Subbasin, is comprised of two aquifer systems: the Alluvium along the Santa Clara River and tributaries (at depths of about 200 feet) and the deeper Saugus Formation in the Upper Santa Clara River area (at depths of at least 2,000 feet) (Kennedy/Jenks Consultants, 2015).

Existing Conditions

The Backcountry Reservoir site is located on the southern edge of the Mission Village development, bounded directly by undeveloped land on the south, and future planned open space areas of Mission Village on the east, west and north, much of which has been rough graded. **Figure 2-9**, **Figure 2-10**, and **Figure 2-11** are photos of the Backcountry Reservoir site taken in January 2020 and show adjacent areas. The Backcountry Reservoir site is rough graded and devoid of vegetation, as shown in the site photos, as well as in the aerial photo in **Figure 2-12**. The Backcountry Reservoir site is located entirely on artificial fill. Concrete slope drains have been installed on the downward slopes of the reservoir site to convey sheet flow to the local storm drain system within the Mission Village development.

The Backcountry Pump Station site is an 11-acre lot north of Magic Mountain Parkway. The site is bounded by open space to the north and west, the six-lane Magic Mountain Parkway to the south (with a Southern California Edison [SCE] substation facility on the opposite side of the road), and high-tension power transmission lines to the east. The site has a history of disturbance, as it was used to cultivate row crops until 2017 and is currently paved. The pump station site disturbance area is primarily composed of disturbed/developed land with little vegetation (**Figure 2-13**). The pump station site is flat land with little to no slope except for the north edge of the site, which slopes down toward the Santa Clara River. The proposed distribution pipelines originating from the V-9 Turnout Facility at the Backcountry Pump Station would be constructed entirely within the paved Magic Mountain Parkway right of way and would tie into existing water mains in Tourney Road and Wayne Mills Place located west of the pump station site.

Figure 2-8: Mission Village Boundary and Environmental Setting



Source: Mission Village Draft EIR Volume I, Figure 1.0-3 (County of Los Angeles, 2010a)

Figure 2-9: Backcountry Reservoir Site Facing Northwest



Backcountry Reservoir site facing northwest with undeveloped hillsides on the northwest.

Figure 2-10: Backcountry Reservoir Site Facing Northeast



Backcountry Reservoir site facing northeast, with grading for Mission Village development taking place on the east.

Figure 2-11: Backcountry Reservoir Site Facing Southeast



Backcountry Reservoir site facing southeast, with graded slopes directly adjacent on the southeast (not a part of the proposed Project).

Figure 2-12: Backcountry Reservoir Site

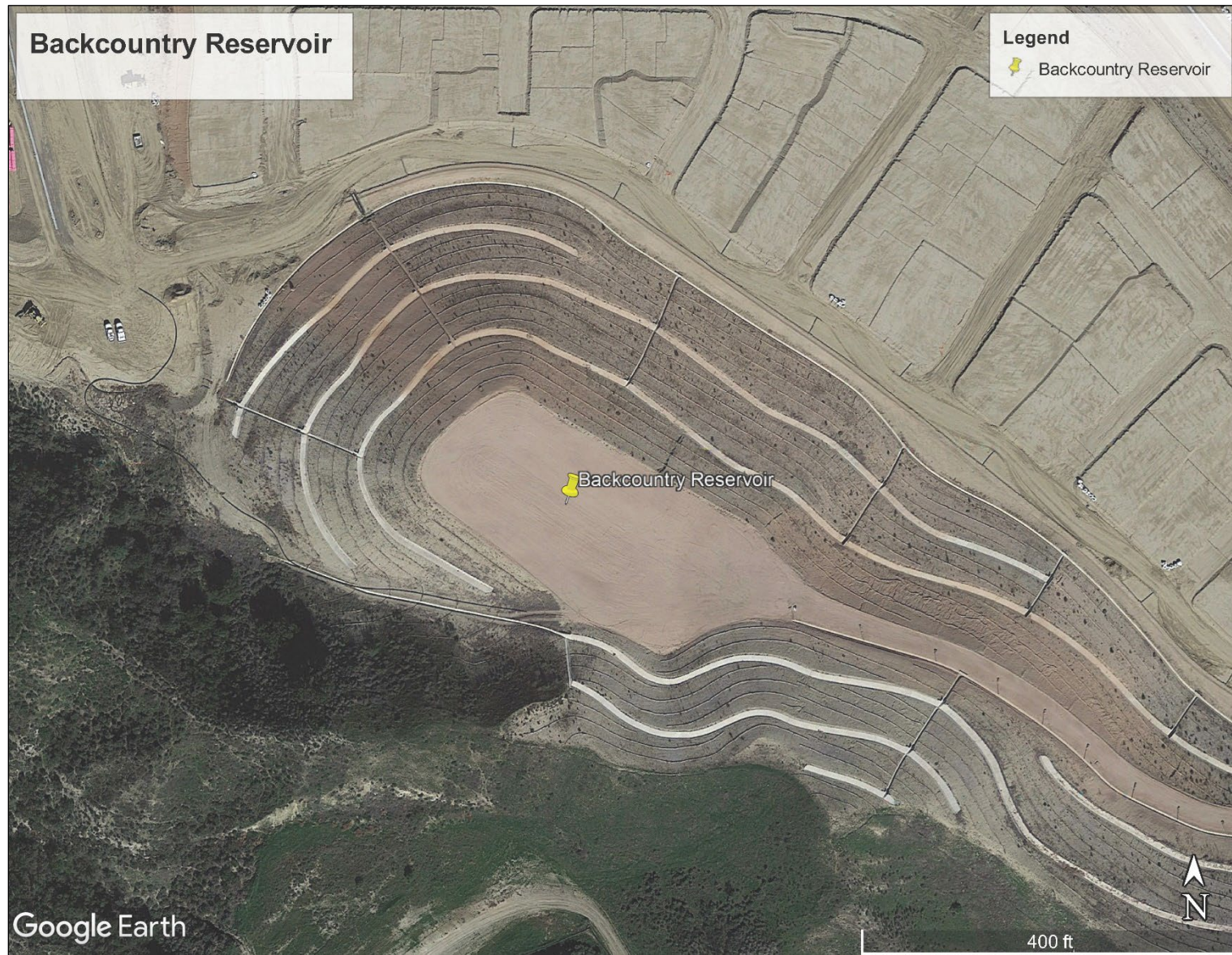


Figure 2-13: Backcountry Pump Station Site, Facing Northwest



2.4 Proposed Project

Backcountry Reservoir Description

A technical memorandum entitled “Preliminary Design Technical Memorandum for Magic Mountain Reservoir Planning” was prepared for SCV Water by Michael Baker International in November 2018 and identified the maximum size of the reservoir that could be built on the tank site parcel. Due to the limited parcel size, the reservoir was proposed to be a partially buried tank located within the “footprint” of the tank site as identified in the Mission Village EIR. A subsequent technical memorandum, entitled “Southwest Area Hydraulic Analysis: Backcountry Pump Station, Backcountry Reservoir, and V-9 Turnout Facility” was prepared to develop design parameters for these facilities and to evaluate a supply scenario in which water production wells located in the east area near Commerce Center Drive convey water east through the Magic Mountain Pipeline to increase overall operational flexibility of SCV Water’s transmission system (Michael Baker International, 2022b).

The approved rough grading plan (shown previously in **Figure 2-4**) provides a site pad for a rectangular shape reservoir with approximate dimensions of 150 feet by 350 feet. The Backcountry Reservoir is proposed to have a tank bottom slab at elevation 1,400 feet, a low water level at an elevation of 1,407.5 feet and a high-water elevation of 1,440 feet to maintain existing hydraulic conditions required for operation of the Earl Schmidt Filtration Plant and Rio Vista Water Treatment Plant, and to match the existing hydraulic gradient of a nearby pressure zone (Zone IIA-N).

Grading for the reservoir would require excavation and backfill for the reservoir structure and for site drainage as well as paving of the maintenance/access road around the reservoir. Based on the requirement for a reservoir floor elevation of 1,400 feet, the estimated grading required for the reservoir structure is approximately 50,000 cubic yards. Approximately 29,000 cubic yards would be hauled to an adjacent development within Mission Village, and approximately 21,000 cubic yards would be used on site as backfill. The proposed reservoir would be constructed as an underground structure 30 feet deep, and approximately 17 feet would be built above the grade. **Figure 2-14** shows grading cross sections.

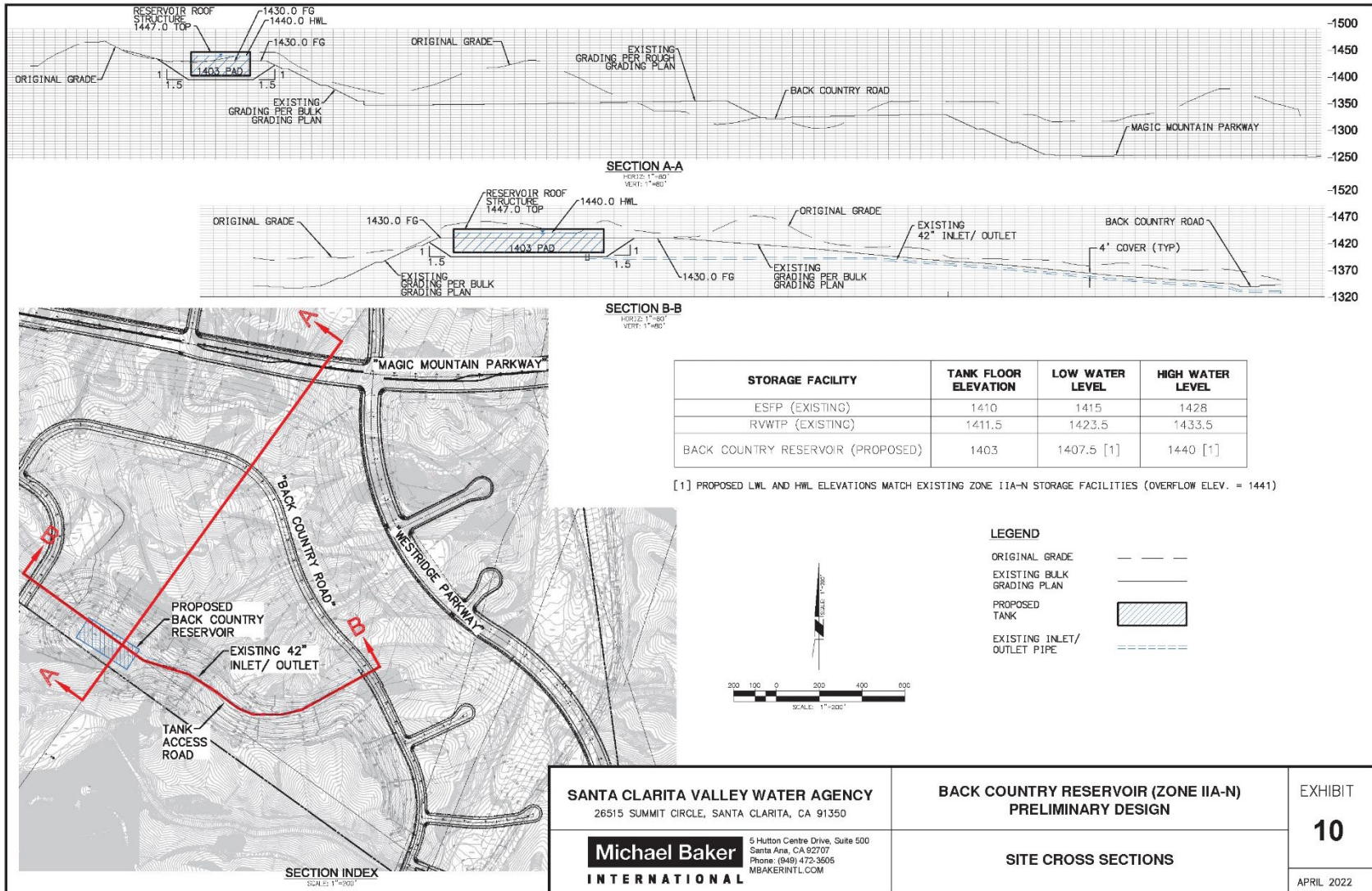
Based on a conceptual site analysis (Michael Baker International, 2022a), the reservoir would be rectangular, with exterior dimensions of approximately 116 feet wide by 304 feet long. The reservoir would be divided into two equal sized storage chambers separated by a common reinforced concrete wall which would extend from floor to roof. Each chamber would have an interior reinforced concrete baffle wall from floor to roof to ensure circulation (**Figure 2-15**). The two storage chambers would operate independently, providing operational flexibility. Seismic design parameters require a 7-foot 6-inches tank freeboard (the clearance maintained between the maximum water level and the roof slab of the tank) and 1-foot 6-inches roof slab thickness, for a cumulative roof top elevation of approximately 1,447 feet, resulting in about 17 feet of the tank being exposed above the grade.

The dimensions of the proposed Backcountry Reservoir were set based on a site layout that maximizes storage volume and provides a minimum 20-foot wide drivable access road around the entire reservoir, which would allow a 30-foot construction truck and a 32-foot fire truck to maneuver around the reservoir (**Figure 2-15**). This layout is based on an AutoCAD “AutoTurn” analysis and satisfies the Los Angeles County Fire Department’s hammer-head turnaround requirement.

Electrical, controls and communications systems for the reservoir are proposed to be installed along the eastern wall (**Figure 2-16**). Five Point, the developer of Mission Village, would provide a SCE connection to the bottom of the access road. SCV Water would coordinate with SCE to connect power to the reservoir.

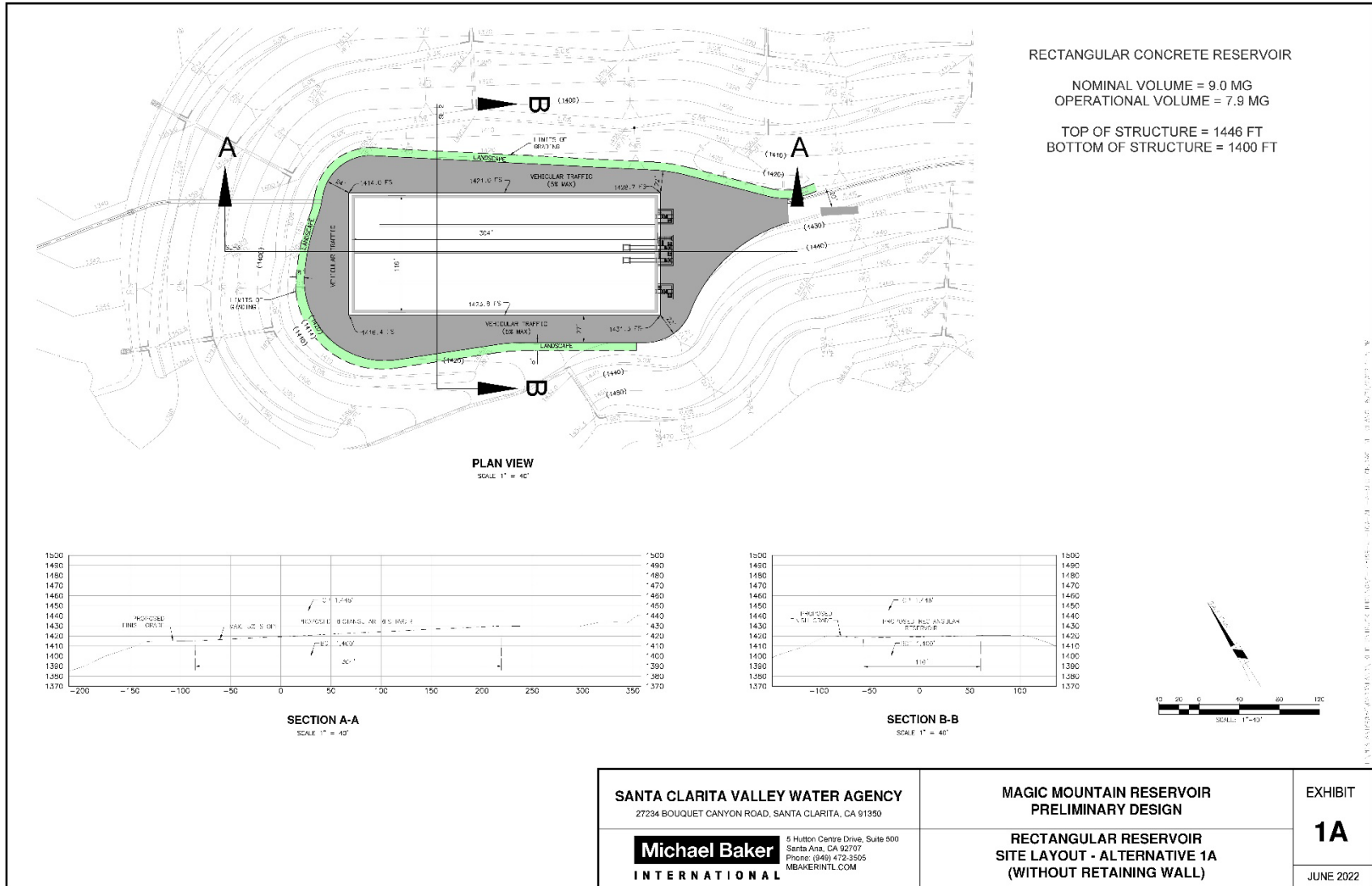
The developed reservoir site would include gated access to the reservoir, perimeter fencing, site drainage features, a supervisory control and data acquisition (SCADA) system and other controls, valving, and other appurtenances. The site would have minimal lighting and no chemicals would be stored on site. The reservoir and site design would include aesthetic treatments as needed to soften views of the reservoir and help ensure the reservoir and fencing blend into the landscape to the extent possible (such as using a tan or earthen color for the exterior coating). A minimum 8-foot-wide landscape area would be located along the perimeter of the site.

Figure 2-14: Backcountry Reservoir Site Cross Sections



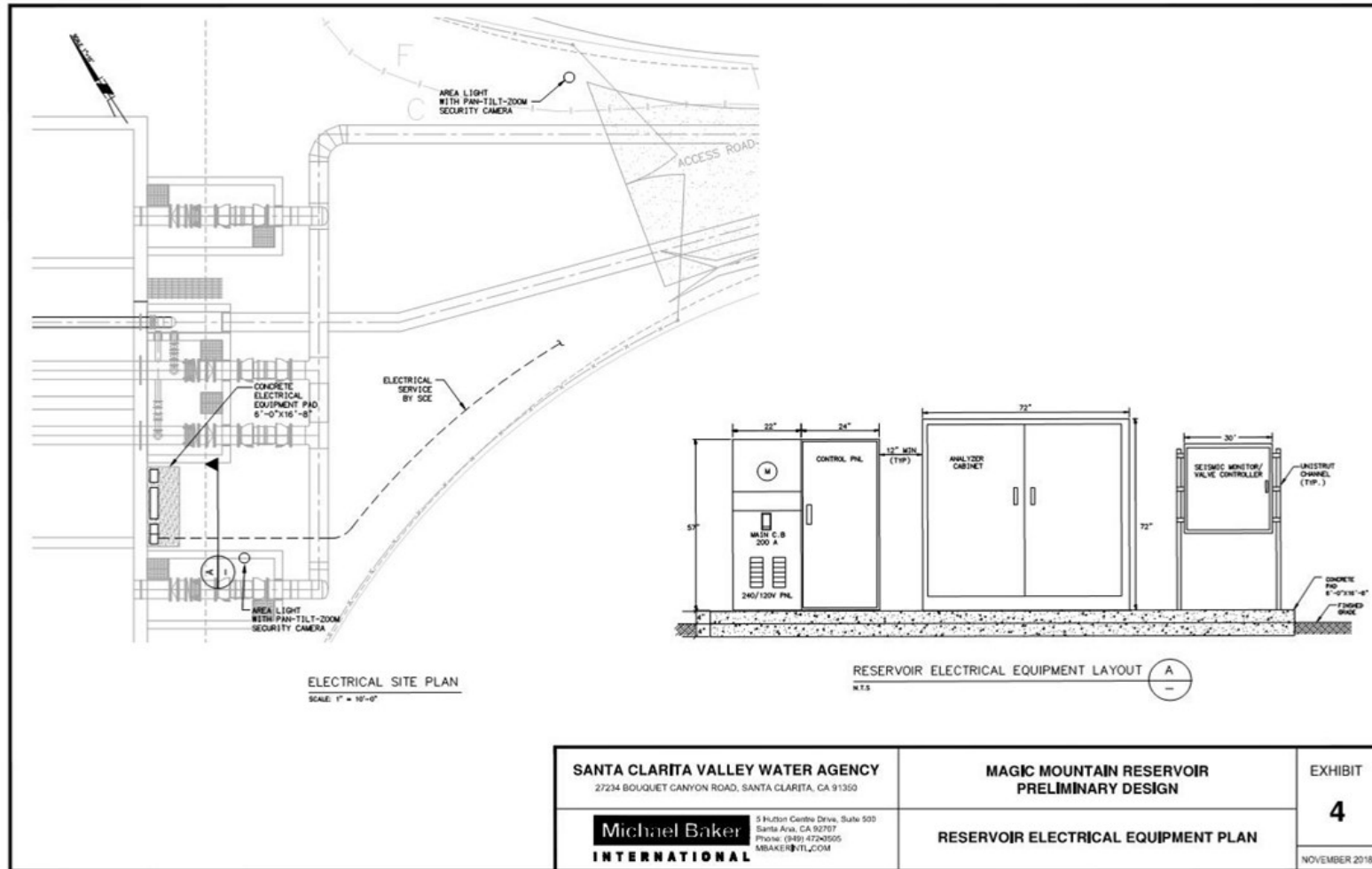
Source: Southwest Area Hydraulic Analysis Technical Memorandum, Draft (Michael Baker International, 2022b)

Figure 2-15: Backcountry Reservoir Site Layout



Source: Backcountry Reservoir Site Analysis Technical Memorandum (Michael Baker International, 2022a)

Figure 2-16: Backcountry Reservoir Electrical Equipment Plan

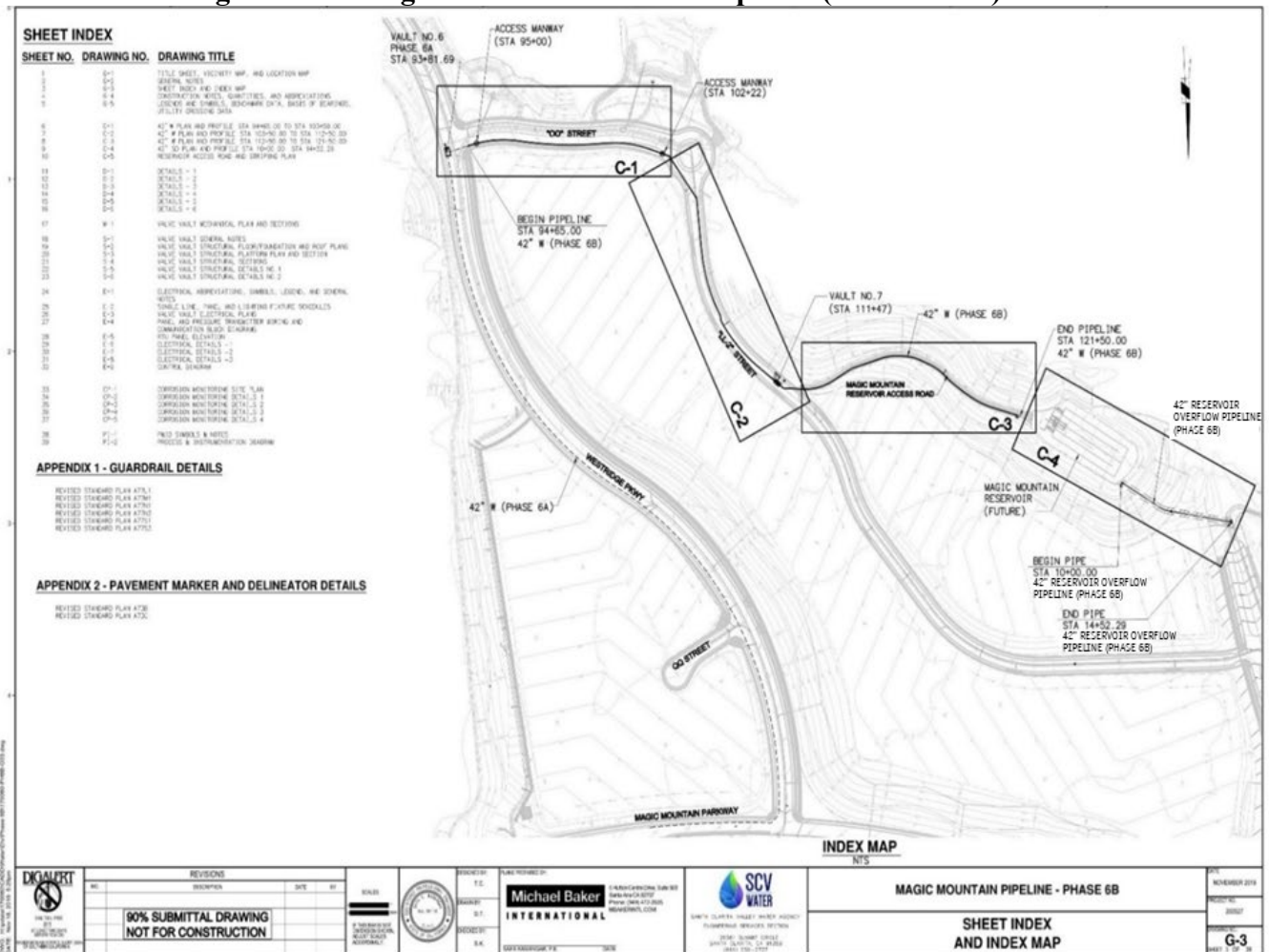


Source: Magic Mountain Reservoir Preliminary Design Technical Memorandum (Michal Baker International, 2018)

Water supply to the Backcountry Reservoir would be delivered through SCV Water’s Magic Mountain Pipeline, an 18,700-foot-long pipeline, which was identified as part of the proposed infrastructure in the Mission Village EIR. Approximately 7,500 feet of the pipeline is existing, and 11,200 feet of pipeline is currently under construction. The proposed reservoir would provide required emergency and operational storage for the SCV Water potable water system.

Construction of the proposed Backcountry Reservoir would occur after construction of the last segment of the Magic Mountain Pipeline (Phase 6B pipeline). The Phase 6B pipeline includes the last segment of the 42-inch Magic Mountain inlet pipeline that would connect to the Backcountry Reservoir, construction of a 42-inch reservoir overflow pipeline that would be connected to the Los Angeles County storm drain system (within Mission Village), and paving installation on the reservoir access road. The Phase 6B inlet pipeline, reservoir overflow pipeline, and paving of the access road are not a part of the proposed Project. **Figure 2-17** is a plan sheet index showing an overview of the Magic Mountain Pipeline 6B, with the reservoir access road and inlet and reservoir overflow pipelines shown in index drawings C-3 and C-4 on **Figure 2-17**.

Figure 2-17: Magic Mountain Phase 6B Pipeline (C-3 and C-4)



Source: Adapted from Magic Mountain Pipeline Phase 6B Design, Michael Baker International, 2018

Backcountry Pump Station Description

Hydraulic analysis of the SCV Water system showed that a pump station (the Backcountry Pump Station) is required to supply the Magic Mountain Reservoir. Michael Baker International prepared a technical memorandum in August 2020 which identified the pump station site and preliminary layout. The pump station would be located within the incorporated boundaries of the City of Santa Clarita, north of Magic Mountain Parkway, south of the Santa Clara River, approximately 0.5 mile east of Interstate 5. The Backcountry Pump Station site is approximately 2 miles east/north-east of the site for the Backcountry Reservoir. The Magic Mountain Pipeline follows Magic Mountain Parkway and passes partially through the pump station site (**Figure 2-5**).

Based on the 2018 technical memo prepared by Michael Baker and subsequent analysis (Michael Baker International, 2020; Michael Baker International, 2022b), the pump station site would include a pump building, flow control and pressure reducing station, emergency backup generator, fuel tank, and electrical transformer pad. The pump station layout is shown in **Figure 2-18** and typical pump station section views are shown in **Figure 2-19**. The pump building would house the required mechanical and electrical equipment. The pump building would include a pump room, generator room, and electrical room. The pump room would be designed to accommodate a total of four vertical turbine pumps (three duty pumps and one standby pump, each 450 horsepower [hp]) and a bypass relief pressure line. The flow control and pressure reducing station would be located on the east side of the pump building. Discharge piping from the pump station would connect to the flow control and pressure reducing station before exiting the property. Inlet and outlet piping would extend to connect to the existing Phase 1 section of the Magic Mountain Pipeline, which passes through the property. A minimum of 30 feet of clear space would be provided on either side of the flow control and pressure reducing station and the bypass pipeline for ease of maintenance access.

Construction of the pump station would involve site preparation, grading, structural improvements, paving, and electrical work. Minimal grading would be required as the site is relatively flat. It is estimated that construction of the pump station would require a maximum excavation depth of 15 feet. The overall dimension of the pump station site is approximately 268 feet by 140 feet. The pump building would be constructed with concrete masonry unit (CMU) block walls, with dimensions of approximately 100 feet by 66 feet, for a total footprint of 6,600 square feet.

The access road and area surrounding the pump station would be paved with asphalt or concrete. The paved area would be designed consistent with fire code to ensure that paved areas can support fire apparatus weighing at least 75,000 pounds, have adequate access road width and turnaround space, acceptable grade, and access road gates. To comply with these requirements, a minimum of 25 feet of clearance would be provided around the pump station building.

Electrical and controls systems would be located within the pump building, inside an air-conditioned electrical room. The pump station control panel would communicate with SCV Water's SCADA system via radio antenna. SCE would provide a new electrical connection to the site. SCV Water would coordinate with SCE to connect power to the pump station. The SCE transformer would be located toward the front entrance to the site.

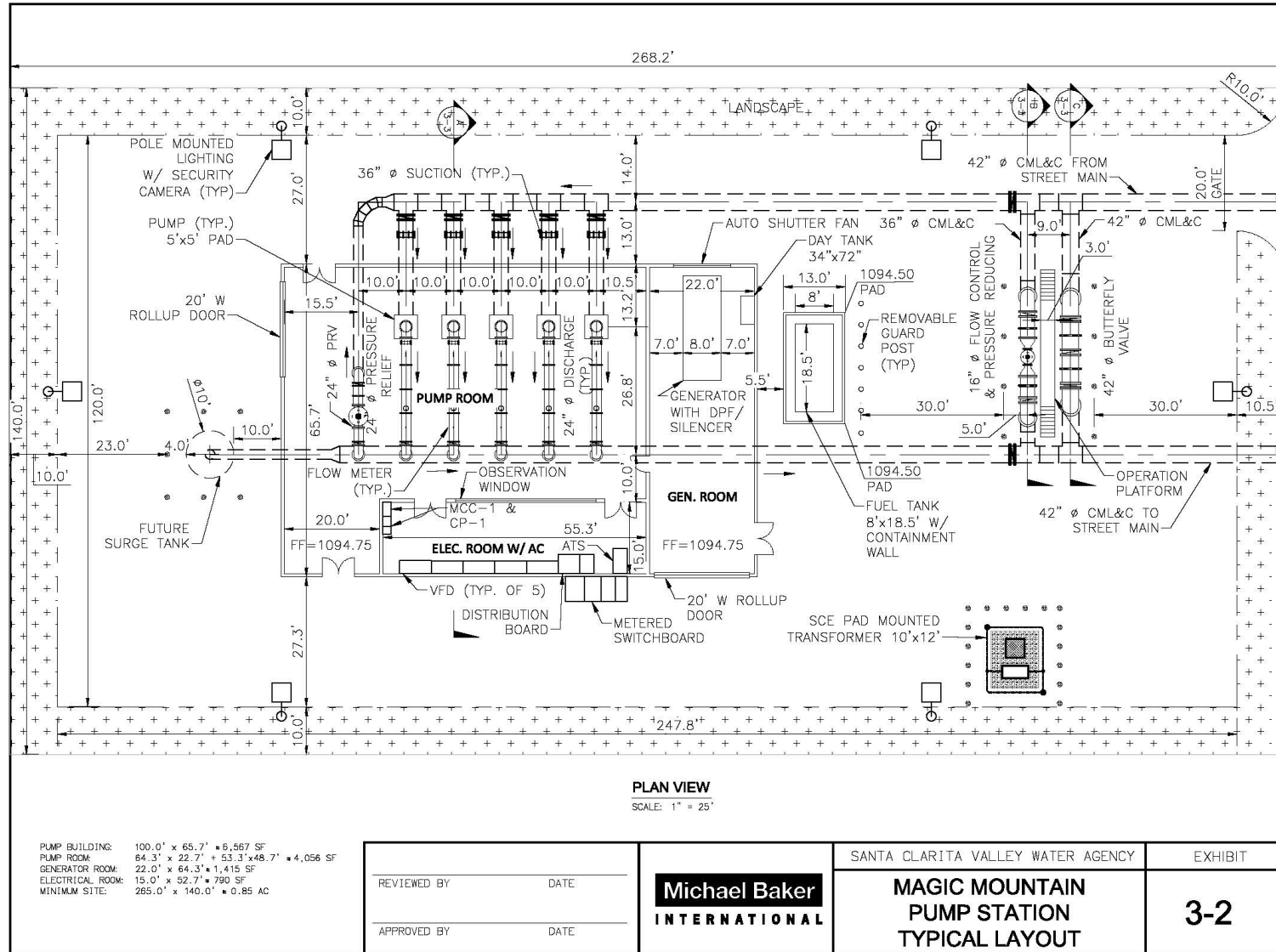
A diesel backup generator would be installed in a generator room within the pump building. The generator would be equipped with a diesel particulate filter if needed to meet SCAQMD requirements. Fuel for the backup generator would be stored in two tanks. One fuel tank would store 7,000 gallons of fuel (enough to operate the generator at a 50 percent load for a minimum of 96 hours), and one day tank would store 300 gallons of fuel (enough to operate the generator at full load for a minimum of two hours). The fuel tanks would be installed within containment walls and would be located outside the pump building.

The existing entrance gate from Magic Mountain Parkway, which is 26 feet wide, would remain in place and could accommodate various vehicles during construction and operation of the pump station. Approximately 1,200 linear feet of perimeter fencing would be installed around the pump station. The proposed Project design includes landscaping, which would surround the property to provide privacy and to soften views of the pump station. Lighting at the pump station would be minimal.

The proposed Project also includes a turnout (V-9 Turnout Facility) that would be located at the Backcountry Pump Station site (**Figure 2-5**). Because the V-9 Turnout is collocated at the Backcountry Pump Station site, it is included in analyses of the pump station throughout this Addendum. The V-9 Turnout would include pressure and flow control valves, as well as a flow meter. The V-9 Turnout would be installed on the Backcountry Pump Station's 42-inch diameter discharging pipe.

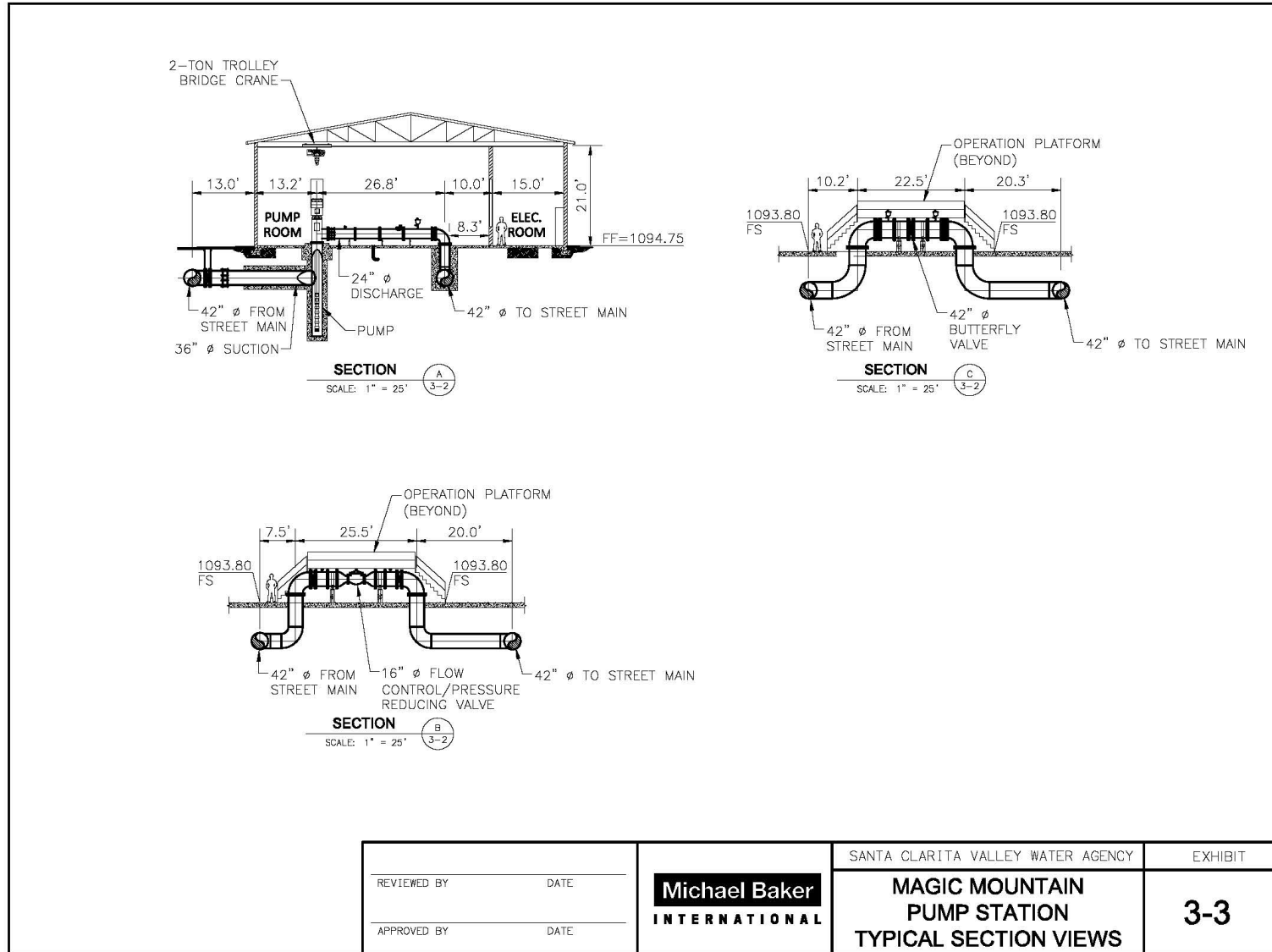
From the V-9 Turnout Facility two water distribution pipelines would be constructed in Magic Mountain Parkway to tie into existing transmission pipelines in existing developed areas. Specifically, a 16-inch distribution pipeline would extend approximately 1,920 feet in Magic Mountain Parkway to tie into the existing 16-inch main in Tourney Road to serve Zone I. Additionally, a 24-inch distribution pipeline would extend approximately 1,4870 feet in Magic Mountain Parkway to tie into the existing 16-inch main in Wayne Mills Place to serve Zone IIA-N (see **Figure 2-6**).

Figure 2-18: Pump Station Layout



Source: Magic Mountain Pump Station Conceptual Design Technical Memorandum (Michael Baker International, 2020)

Figure 2-19: Pump Station Section Views



Source: Magic Mountain Pump Station Conceptual Design Technical Memorandum (Michael Baker International, 2020)

Construction Activities

Backcountry Reservoir

Construction of the Backcountry Reservoir would include, but not be limited to, civil site work; earthwork and grading; reservoir construction; installation of piping, seismic anchors, electrical systems, instrumentation, controls, SCADA systems, lighting, fences and gate; and paving of the maintenance road around the reservoir. Construction staging would occur on the proposed reservoir site, and would require storage of equipment, construction materials and stockpiled soil. As described above, reservoir construction is anticipated to result in approximately 35,000 cubic yards of exported material.

Backcountry Pump Station , V-9 Turnout Facility and Distribution Pipelines

Construction of the pump station would include, but not be limited to, earthwork and grading; structural improvements; installation of pumps, valves, and appurtenances; installation of electrical systems, lighting, gate, and emergency generator; and landscaping. Construction staging would occur on the proposed pump station site, and would require storage of equipment, construction materials, and stockpiled soil. Construction activities would be restricted to the disturbed site; areas of adjacent vegetation would be avoided. It is estimated that pump station construction would require excavation of 1,200 cubic yards of soil, would generate 800 cubic yards of export and require 1,500 cubic yards of fill material. Construction of the V-9 turnout would be by open cut trenching. It is estimated that 900 cubic yards of material would be exported, and 500 cubic yards of fill would be imported. To connect the pump station to the existing 42-inch water transmission pipeline (Magic Mountain Pipeline), some work may be required in public right-of-way in Magic Mountain Parkway. There is also potential for landscaping improvements and work to improve driveway access to Magic Mountain Parkway in public right-of-way. Construction staging would be located at the pump station site. Construction of the 16-inch and 24-inch distribution pipelines in Magic Mountain Parkway would be completed by open cut trenching. The trench would be 4 to 6 feet deep and 4 feet wide (2 feet on either side). All construction would take place within the Magic Mountain Parkway right-of-way.

It is anticipated that in order to make proposed connections to the existing Magic Mountain Pipeline, dewatering and discharge into local storm drains along Magic Mountain Parkway would be required. Discharges into the storm drain would require a permit from County of Los Angeles Department of Public Works (LACDPW) with pre-approved discharge locations. In addition, coordination with the California Department of Fish & Wildlife (CDFW) would be required if significant discharges to the Santa Clara River are expected.

Equipment/Staging

To characterize and analyze potential construction impacts, construction-related truck trips and equipment types have been estimated based on expected excavation volumes, quantities of exported materials, construction material deliveries and construction site equipment operations. Estimated truck trips for the proposed Project are summarized in **Table 2-1** and **Table 2-2**. Equipment that may be used at any given time during proposed Project construction is summarized in **Table 2-3** and **Table 2-4**. Construction staging is anticipated to be located at the reservoir and pump station sites.

Table 2-1: Estimated Truck Trips – Backcountry Reservoir

Truck	Total Trips	Trips/day
Soil Haul Trucks (assume 8 trucks, 10 cubic yards of soil per truck, 8 round trips per day, 3-mile round trip haul)	3,500	64
Concrete Trucks (assume need to pour 1 wall per day, total 9 walls)	580	10
Material Delivery Trucks	145	1

Source: Woodard & Curran

Table 2-2: Estimated Truck Trips – Pump Station and V-9 Turnout

Truck	Total Trips	Trips/day
Soil Haul Trucks (assume 8 trucks, 10 cubic yards of soil per truck, 8 round trips per day, 3-mile round trip haul)	130	32
Concrete Trucks	40	N/A
Material Delivery Trucks	90	N/A

Source: MBI engineer's estimates

Table 2-3: Estimated Equipment Type and Use – Backcountry Reservoir

Equipment Type	Estimated Number Used (per day)	Estimated Duration (hours/day)	Estimated Total Number of Working Days of Use During Entire Construction
Excavator	1	8	55
Track Loader	1	4	75
Highway legal dump truck	8	8	75
Flatbed truck (material delivery)	1	1	145
Pickup trucks	1	4	500
Worker vehicles	10	2	500
Crane	1	6	250
Paver	1	4	10
Compactor	1	4	10
Grader	1	4	10

Source: Woodard & Curran

Table 2-4: Estimated Equipment Type and Use – Pump Station and V-9 Turnout

Equipment Type	Estimated Number Used (per day)	Estimated Duration (hours/day)	Estimated Total Number of Working Days of Use During Entire Construction
Excavator	1	8	80
Track Loader	1	8	40
Highway legal dump truck	4	8	30
Flatbed truck (material delivery)	1	4	120
Pickup trucks	4	8	240
Worker vehicles	4	8	240
Crane	1	8	50
Paver	1	8	15
Compactor	1	8	60
Grader	1	8	10
Water Truck	1	6	60
Forklift	1	4	40

Source: MBI engineer's estimates

Construction Management Practices

The contract documents would include standard construction management practices including, but not limited to:

- Obtain coverage under the State Water Resources Control Board (SWRCB) Construction General Permit and implement a Storm Water Pollution Prevention Plan (SWPPP).
- Identify existing underground utilities through Underground Service Alert.
- Comply with South Coast Air Quality Management District (SCAQMD) Rule 403.1 to control dust during construction. The contractor is required to have an approved Fugitive Dust Control Plan prior to grading or excavation.
- Comply with the California Air Resources Boards (CARB) In-Use Off-Road Diesel-Fueled Fleets Regulations, which would limit vehicle idling time to five minutes, restrict adding vehicles to construction fleets that have lower than Tier 3 engines, and establish a schedule for retiring older, less fuel-efficient engines from the construction fleet.
- Prepare a Hazardous Materials Management and Spill Control Plan to manage hazardous materials, wastes, and any potential spills during construction.

Construction Schedule

Construction of the reservoir, pump station, and V-9 turnout is expected to take approximately 18 to 24 months to complete, with an estimated start in fall 2024 and completion between spring and fall 2026.

Project Operation and Maintenance

Backcountry Reservoir

The Backcountry Reservoir would be supplied with potable water conveyed through the Magic Mountain pipeline. Operation of the reservoir would generally involve control of reservoir potable water level through SCADA from various operating scenarios from four different possible water sources: potable surface water treatment plants, existing wells 206 and 207, existing Saugus wells 1 and 2, and future wells S3 and S4.

The Backcountry Reservoir would be inspected every three years in accordance with the American Water Works Association standards. The reservoir would not be drained as part of regular maintenance. Maintenance of reservoir valves, air vacs, and other appurtenances would be conducted per manufacturer's recommendations.

Maintenance and collection of water samples from the reservoir would require an estimated four worker trips to the site per week. Power consumption for operation of the reservoir is estimated to be 10 kilowatt-hours (kWh) per day or 3,650 kWh annually, based on the estimated electrical needs to operate low level lighting, SCADA systems, security systems and other electrical controls.

Backcountry Pump Station and V-9 Turnout Facility

During operation the pump station would pump approximately 8,000 gallons per minute to the Backcountry Reservoir using one pump, and up to 23,300 gpm with three pumps in operation (Michael Baker International, 2022b). No storage or use of chemicals is proposed at the pump station.

Maintenance of the pump station would include inspection, cleaning, and water quality sampling. The pump station would be inspected weekly. Maintenance of pumps, flow control and pressure reducing station, and appurtenances would be conducted in accordance with manufacturer's recommendations. Water quality would be monitored on site weekly. To discharge water samples containing chloramines into the local wastewater collection system, an Industrial Waste Discharge Permit would be required by the LACDPW. Inspection and sampling would require one worker trips to the site per week.

Power consumption for operation of the pump station is estimated to be 900,000 kWh, annually, based on electrical needs for operation of the pumps, electrical controls, and lighting. In the event of a power failure, the diesel backup generator would provide power for a minimum of 24 hours. If landscaping is installed at the pump station site, regular maintenance would result in approximately one worker trip per week.

The V-9 Turnout Facility would also be located at the Backcountry Pump Station Site. The turnout would allow for tie-ins to existing Zone I and Zone IIA-N through the proposed 16-inch and 24-inch distribution pipelines within Magic Mountain Parkway. The turnout facility includes above-ground pipe trains for flow control, pressure-reducing valves and isolation valves, and aboveground discharge piping downstream of the flow control pipe trains. Water from the pump station would flow to the V-9 Turnout when water is not needed at the Backcountry Reservoir. The V-9 Turnout would be hydraulically operated and monitored through SCADA. Operation would consist of monthly exercising of manual valves and recalibrating of meters approximately every two years. No other maintenance is anticipated.

2.5 Permits and Approvals

The proposed Project may require the following permits and approvals:

- State Water Resources Control Board Division of Drinking Water (SWRCB-Division of Drinking Water): approval for an amendment to SCV Water's Drinking Water Supply Permit

- State Water Resources Control Board (SWRCB): NPDES General Permit for Storm Water Discharges associated with Construction Activities
- Los Angeles Regional Water Quality Control Board (RWQCB): NPDES General Discharge Permit for Low Threat Hydrostatic Test Water Discharges to Surface Waters
- Los Angeles RWQCB: NPDES General Permit for Discharges of Groundwater from Construction and Project Dewatering to Surface Waters
- South Coast Air Quality Management District (SCAQMD): Permit to Construct and Permit to Operate for pump station (engine greater than 50 BHP)
- Los Angeles County Department of Public Works (Building and Safety Division): Building plan check (required because the pump generator has a disconnecting means rated more than 400A)
- Los Angeles County Department of Public Works (Flood Control District): Permit for discharges to the storm drain
- Los Angeles County Department of Public Works: Industrial Waste Discharge Permit (for discharge of samples containing chloramines to the local wastewater collection system)
- Los Angeles County Fire Department: Construction permit for diesel for pump generator (under California Fire Code, Section 105.7.9)
- Southern California Edison: Approval to connect to power supply

3. RELATION TO MISSION VILLAGE EIR

3.1 Environmental Impact Findings in Mission Village EIR

The Mission Village EIR concluded that most environmental resource impacts of the Mission Village development project, which included development of a water tank at the Backcountry Reservoir site, could be reduced to less than significant with incorporation of mitigation measures. However, the EIR found that project impacts and/or cumulative impacts associated with five environmental resource topics remained significant and unavoidable even with incorporation of mitigation measures. Table ES-1 of the EIR summarizes the impact findings for all environmental resource topics; those found to be significant are summarized from Table ES-1 as follows:

- **Biota:** *While the proposed project would not result in significant unavoidable impacts (after implementation of mitigation measures), the proposed project's contribution to cumulative impacts to coastal scrub would remain significant.*
- **Visual Qualities:** *After implementation of the recommended mitigation measures, visual quality project and cumulative impacts would remain significant and unavoidable.*
- **Air Quality:** *No feasible mitigation exists that would reduce all of the project emissions to below the SCAQMD's recommended thresholds of significance. The project's and cumulative condition construction-related emissions of volatile organic compounds (VOCs), nitrogen oxide (NO_x), particulate matter 10 micrometers or less in diameter (PM₁₀), and particulate matter 2.5 micrometers or less in diameter (PM_{2.5}) and operation-related emissions of VOCs, NO_x, carbon monoxide (CO), PM₁₀, and PM_{2.5} are considered significant and unavoidable.*
- **Solid Waste:** *Even with mitigation, the project's solid and hazardous waste impacts would be considered significant and unavoidable. In addition, cumulative solid and hazardous waste impacts would be considered significant and unavoidable.*
- **Agricultural Resources:** *The project-specific impacts resulting from the loss of prime agricultural land are considered significant and unavoidable. In addition, the cumulative conversion of prime agricultural land to non-agricultural uses constitutes a loss of an irreplaceable resource and is considered a significant and unavoidable cumulative impact.*

3.2 Mitigation Measures in Mission Village EIR

The Mission Village EIR contains over a hundred mitigation measures to reduce environmental impacts of the Mission Village land development project, which included development of a water tank at the Backcountry Reservoir site. The mitigation measures include relevant and applicable program-level mitigation measures from the Newhall Ranch Specific Plan Program EIR as well as project-specific mitigation measures applicable to the Mission Village land development project contained in the Mission Village EIR. Several mitigation measures are applicable to construction and operation of the proposed Project.

All of the mitigation measures are listed in Table ES-1 of the 2011 Mission Village EIR and can be found at: http://planning.lacounty.gov/assets/upl/case/tr_061105_deir-volume1.pdf.

Additional mitigation measures further addressing Mission Village development impacts on biota as well as Global Climate Change from increased greenhouse gas (GHG) emissions can be found at: http://planning.lacounty.gov/assets/upl/case/tr_061105-1_draft-eir.pdf.

3.3 Approach to Environmental Evaluation of Backcountry Reservoir Project

Section 5, Environmental Checklist evaluates environmental impacts of the proposed Project pursuant to Section 15063(d)(3) of the CEQA Guidelines. The evaluation compares the anticipated environmental effects of the proposed Project with those disclosed in the Mission Village EIR, and reviews whether any of the conditions requiring preparation of a Subsequent EIR pursuant to Section 15162 of the CEQA Guidelines are met, and whether there are new significant impacts resulting from the proposed Project. Specifically, the evaluation determines if construction and operation of the Backcountry Reservoir at the tank site location identified and evaluated in the Mission Village EIR as well as the associated Back County Pump Station would result in new impacts or increase the severity of impacts in comparison to the impacts identified in the Mission Village EIR. The analysis also examines if the applicable mitigation measures in the Mission Village EIR would be effective in avoiding or reducing potential significant impacts of the proposed Project, or whether new mitigation measures would be needed to mitigate impacts.

Many of the mitigation measures in the Mission Village EIR were written to address a large-scale residential development requiring various review and approvals from Los Angeles County. Unlike the Mission Village development, the proposed Project will be designed and constructed by SCV Water in accordance with SCV Water design and construction standards. Therefore, implementation actions have been defined for each of the original Mission Village mitigation measures to clarify how the mitigation would be implemented for the proposed Project and to facilitate proper implementation by SCV Water but do not constitute any revision to these mitigation measures. These implementation actions do not represent a change in the purpose, intent and effect of the original mitigation measure, and the conditions for proceeding with an Addendum under CEQA Guidelines Section 15162 are still met. In this Addendum, the applicable mitigation measures, extracted verbatim in whole or part from the Mission Village EIR are notated as “MV”, and those which tiered from the Newhall Ranch Specific Plan Program EIR are notated as “SP”. The SCV Water implementation actions are provided for each of the applicable mitigation measures.

The Environmental Checklist in Section 5 covers all environmental topics listed in Appendix G of the CEQA Guidelines. Since certification of the Mission Village Final EIR in 2011, the Appendix G Environmental Checklist was updated as part of the state CEQA Guidelines update in December 2018. The updated Appendix G Environmental Checklist included modifications to some checklist questions and the addition of several new environmental resource topics, specifically Energy, Tribal Cultural Resources and Wildfire Risk. The environmental evaluation in this Addendum uses the updated Environmental Checklist.

4. DETERMINATION

The Environmental Checklist in Section 5 is an analysis of environmental impacts of construction and operation of the proposed Backcountry Reservoir and Pump Station Project. The analysis in the checklist evaluates whether construction and operation of the Backcountry Reservoir at the tank site location identified and evaluated in the Mission Village EIR as well as the associated pump station, turn-out facility and distribution pipelines would result in new impacts or increase the severity of impacts in comparison to the impacts identified in the Mission Village EIR. The analysis also examines whether the applicable mitigation measures in the Mission Village EIR would be effective in avoiding or reducing potential significant impacts of the Backcountry Reservoir and Pump Station Project, or whether new mitigation measures would be needed to mitigate impacts.

Based on the information and analysis contained in this Addendum, and pursuant to Section 15162 of the CCR, SCV Water has determined that:

- There are no substantial changes proposed in the project which would require major revisions of the previous EIR due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects.
- Substantial changes have not occurred with respect to the circumstances under which the project is undertaken which would require major revisions of the previous EIR due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects.
- There is no new information of substantial importance, which was not known and could not have been known with the exercise of reasonable diligence at the time the previous EIR was certified as complete, that shows any of the following:
 - The project would have one or more significant effects not discussed in the previous EIR;
 - Significant effects previously examined would be substantially more severe than shown in the previous EIR;
 - Mitigation measures or alternatives previously found not to be feasible would in fact be feasible, and would substantially reduce one or more significant effects of the project, but the project proponents decline to adopt the mitigation measure or alternative; and
 - Mitigation measures or alternatives which are considerably different from those analyzed in the previous EIR would substantially reduce one or more significant effects on the environment, but the project proponents decline to adopt the mitigation measure or alternative.

Matthew Stone
General Manager

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Matthew G. Stone
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Signature

For Santa Clarita Valley Water Agency

11/30/2022

Date

5. ENVIRONMENTAL CHECKLIST

1. **Project title:** Addendum to Mission Village Environmental Impact Report – Backcountry Reservoir and Pump Station Project

2. **Lead agency name and address:** Santa Clarita Valley Water Agency
26521 Summit Circle
Santa Clarita, California 91350

3. **Contact person and phone number:** Ernesto Velazquez
Santa Clarita Valley Water Agency
26521 Summit Circle
Santa Clarita, California 91350
(661) 714-2768

4. **Project location:** The Backcountry Reservoir site is located at the southern edge of the Mission Village development which is south of the Santa Clara River and State Route 126, and west of Interstate-5 within unincorporated Los Angeles County. The proposed associated Backcountry Pump Station would be located east of the Mission Village development, on a vacant parcel adjacent to Magic Mountain Parkway, approximately 0.5 miles east of Interstate-5, within the City of Santa Clarita. The associated distribution pipelines would extend westerly from the pump station site through the Magic Mountain Parkway right of way, within the City of Santa Clarita

5. **Project sponsor's name and address:** Santa Clarita Valley Water Agency
26521 Summit Circle
Santa Clarita, CA 91350

6. **General plan designation:** Public Facility – Backcountry Reservoir; Business Park – Backcountry Pump Station

7. **Zoning:** SP: Specific Plan - Backcountry Reservoir; Business Park - Backcountry Pump Station

8. **Description of project:** Construction and operation of a 7.9 million gallon (MG) partially buried reservoir and associated pump station to provide emergency and operational storage of potable water during short-term outage or disruptions to the regional water supply system.

9. **Surrounding land uses and setting:** The reservoir site is located on the southern edge of the developing Mission Village, a planned community within the Newhall Ranch Specific Plan area, west of the City of Santa Clarita. The site is bounded directly by undeveloped land on the south, and future planned open space areas of Mission Village on the east, west and north, some of which has been rough graded. The project site is rough graded and devoid of vegetation. Concrete slope drains have been installed on the downward slopes of the reservoir site to convey sheet flow to the local storm drain system within the Mission Village development. The pump station site is an 11-acre lot north of Magic Mountain Parkway. The site is bounded by open space to the north and west, a SCE substation facility to the south, and power transmission lines to the east. Proposed distribution pipelines would extend westerly through the Magic Mountain Parkway right of way, which is surrounded by open space to the north and developed land to the south.

10. Other public agencies whose approval may be required (e.g., permits, financing approval, or participation agreement.)

- State Water Resources Control Board Division of Drinking Water (SWRCB-Division of Drinking Water): approval for an amendment to SCV Water's Drinking Water Supply Permit
- State Water Resources Control Board (SWRCB): NPDES General Permit for Storm Water Discharges associated with Construction Activities
- Los Angeles Regional Water Quality Control Board (RWQCB): NPDES General Discharge Permit for Low Threat Hydrostatic Test Water Discharges to Surface Waters
- Los Angeles RWQCB: NPDES General Permit for Discharges of Groundwater from Construction and Project Dewatering to Surface Waters
- South Coast Air Quality Management District (SCAQMD): Permit to Construct and Permit to Operate for pump station (engine greater than 50 BHP)
- Los Angeles County Department of Public Works (Building and Safety Division): Building plan check (required because the pump generator has a disconnecting means rated more than 400A)
- Los Angeles County Department of Public Works (Flood Control District): Permit for discharges to the storm drain
- Los Angeles County Department of Public Works: Industrial Waste Discharge Permit (for discharge of samples containing chloramines to the local wastewater collection system)
- Los Angeles County Fire Department: Construction permit for diesel for pump generator (under California Fire Code, Section 105.7.9)
- Southern California Edison: Approval to connect to power supply

11. Have California Native American tribes traditionally and culturally affiliated with the Project area requested consultation pursuant to Public Resources Code section 2180.3.1? If so, is there a plan for consultation that includes, for example, the determination of significance of impacts to tribal cultural resources, procedures regarding confidentiality, etc.?

Compliance with PRC section 2180.3.1, applies to any project for which a Notice of Preparation (NOP) of an EIR, Notice of Mitigated Negative Declaration or Notice of Negative Declaration is filed on or after July 1, 2015, as stated in PRC section 21084.3, Section 11 (c). The NOP for the Mission Village EIR was filed on May 24, 2005. Therefore, requirements under PRC section 2180.3.1 are not applicable to the Addendum to the Mission Village EIR.

Evaluation of Environmental Impacts

The environmental evaluation herein utilizes a checklist format to make findings based on the following four criteria:

- 1) **No New Impact/No Impact** – this finding means that the potential impact was analyzed and/or mitigated in the previously certified EIR and no new or different impacts would result from the proposed activity.
- 2) **New Mitigation is Required** – this finding means that the project may have a potentially significant impact on the environment or a substantially more severe impact than analyzed in the previously certified EIR and that new mitigation is required to address the impact.
- 3) **New Potentially Significant Impact** – this finding means that the project may have a new potentially significant impact on the environment or a substantially more severe impact than analyzed in the previously certified EIR that cannot be mitigated to below a level of significance or be avoided.
- 4) **Reduced Impact** – this finding means that a previously infeasible mitigation measure is now available, or a previously infeasible alternative is now available that will reduce a significant impact identified in the previously prepared environmental document.

5.1 Aesthetics

Except as provided in Public Resources Code Section 21099, would the Project:	<i>New Potentially Significant Impact</i>	<i>New Mitigation Required</i>	<i>No Impact/ No New Impact</i>	<i>Reduced Impact</i>
a) Have a substantial adverse effect on a scenic vista?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point). If the Project is in an urbanized area, would the Project conflict with applicable zoning and other regulations governing scenic quality?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Discussion**a) Have a substantial adverse effect on a scenic vista?***No New Impact.*Backcountry Reservoir

The Backcountry Reservoir would be visible from adjacent areas and would have temporary visual impacts during construction as discussed in the Mission Village EIR. Preliminary plans for the reservoir indicate that final grading would result in approximately 17 feet of the reservoir would be exposed above ground and could be visible to immediately surrounding areas. The original tank as evaluated in the Mission Village EIR was fully aboveground, although its height was not specified. The reservoir site design would adhere to the Newhall Ranch Specific Plan design guidelines to ensure the reservoir and fencing blend into the landscape, and aesthetic treatments are incorporated to soften views of the reservoir to the extent possible. The reservoir site was strategically selected to minimize adverse aesthetic impacts on the community and would be shielded from view by a landscape berm to provide visual integration into the surrounding areas. The reservoir would not obstruct any scenic views. Impacts on scenic vistas during construction and operation would be less than significant with implementation of mitigation measures that would ensure that the reservoir is compatible with the development guidelines and design standards of the Newhall Ranch Specific Plan.

Backcountry Pump Station

The Backcountry Pump Station site is adjacent to large electric transmission lines and is located across the street from a SCE substation facility. The existing visual character of the site is impacted by these utilities.

The Backcountry Pump Station would be visible from adjacent portions of Magic Mountain Parkway and a small portion of the Iron Horse Trail. The Backcountry Pump Station would have temporary visual impacts during construction (e.g., construction vehicles, soils stockpiles, and equipment). These impacts would be limited to the areas with views of the Backcountry Pump Station site and would end once construction is complete. The Backcountry Pump Station would include a pump building, which would house the majority of the Backcountry Pump Station equipment (including pumps, generator, and electrical). The pump building would be constructed with CMU block walls. Some components of the Backcountry Pump Station would be outside the pump building (which may include a transformer, fuel tank, and flow control and pressure reducing station). Distribution pipelines would be buried and would not alter views. The Backcountry Pump Station would not obstruct any scenic views or substantially impact the existing visual character of the area. Impacts on scenic vistas during construction and operation would be less than significant.

Mission Village EIR Findings

The Mission Village EIR concluded overall that the Mission Village development would result in a substantial change in the visual qualities of the area and impacts to some scenic vistas would be significant during and after construction even with implementation of mitigation measures.

Conclusion: Because the partially buried Backcountry Reservoir and the Backcountry Pump Station would not have greater visual impacts than the tank described in the Mission Village EIR, the proposed Project would not create any new significant visual impacts or create a substantial increase in the severity of significant impacts to scenic vistas identified in the Mission Village EIR, and no additional mitigation measures would be necessary.

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

No New Impact.

Backcountry Reservoir

The Backcountry Reservoir would not impact scenic resources since there are no such resources in the viewshed of the reservoir site. There are no officially designated state scenic highways in the vicinity of the Mission Village development or the Backcountry Reservoir. No impacts would be expected.

Backcountry Pump Station

No scenic resources are present in the viewshed of the Backcountry Pump Station site. There are no designated state scenic highways in the vicinity of the Backcountry Pump Station. No impact would occur.

Mission Village EIR Findings

The Mission Village EIR concluded overall that the Mission Village development would result in a substantial change in the visual qualities of the area (including the Santa Clara River/SR-126 visual corridor), and impacts to some scenic vistas would be significant during and after construction even with implementation of mitigation measures.

Conclusion: The proposed Project would not create any new significant visual impacts or create a substantial increase in the severity of significant impacts to scenic vistas identified in the Mission Village EIR. No additional mitigation measures would be necessary because the Backcountry Reservoir would not

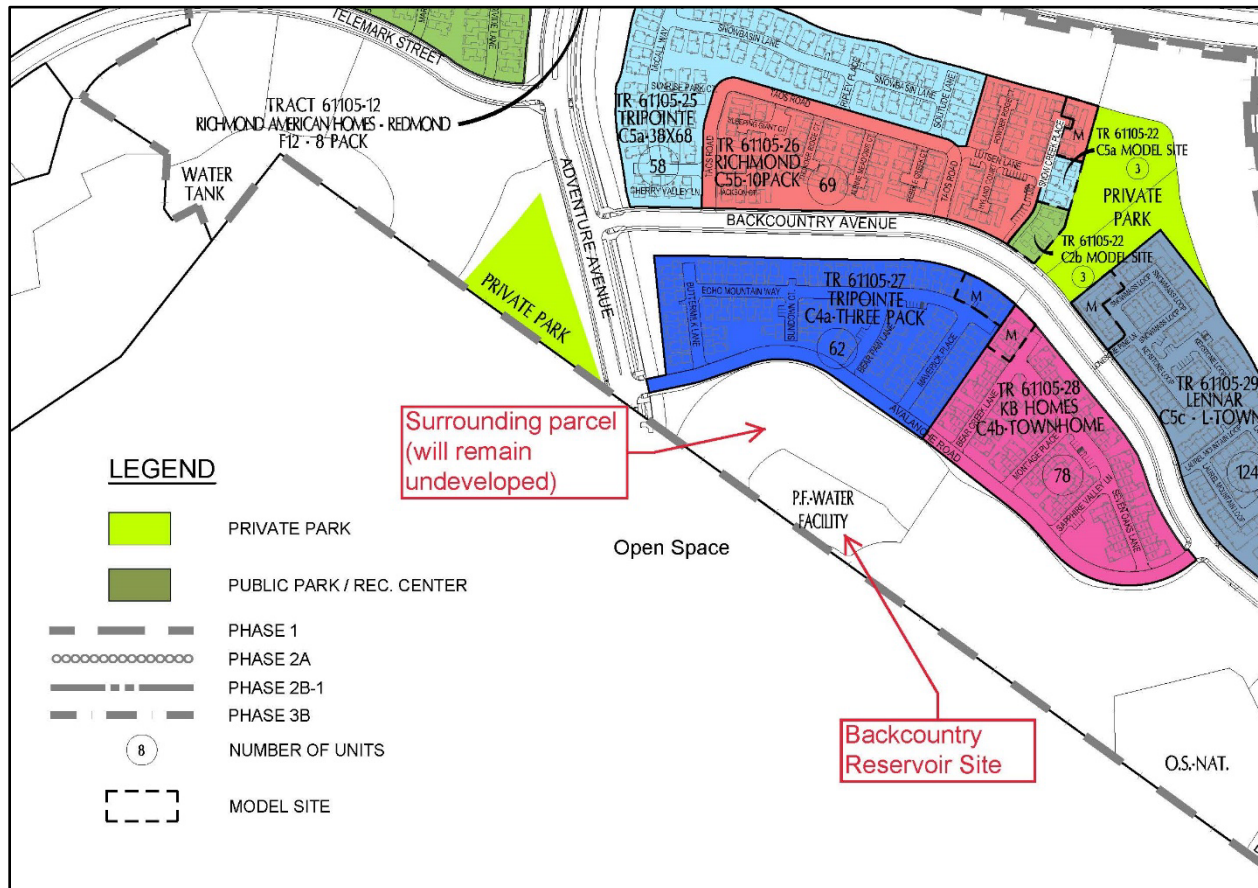
be more visually obtrusive than the aboveground tank envisioned in the Mission Village EIR, and the Backcountry Pump Station would not substantially impact scenic resources.

c) In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point). If the Project is in an urbanized area, would the Project conflict with applicable zoning and other regulations governing scenic quality?

No New Impact.

Backcountry Reservoir

The Backcountry Reservoir site is located in the urbanized portion of the Santa Clarita Valley, within the Mission Village area currently under development. The reservoir would not conflict with the applicable zoning and other regulations governing scenic quality. As part of the larger Newhall Ranch development, the Backcountry Reservoir is subject to the Development Regulations and Design Guidelines contained in the Newhall Ranch Specific Plan. These regulations and guidelines provide site development standards and address site planning, architecture, fencing, landscape design, lighting, setbacks, and grading design criteria within the Newhall Ranch Specific Plan. Final grading of the reservoir site would result in approximately 17 feet of the reservoir exposed above ground, which is well below the 35-foot maximum building height standard set for open area land use type in the Newhall Ranch Specific Plan development regulations. The Newhall Ranch Specific Plan Development Regulations and Design Guidelines also require a 50-foot setback in open areas. The setback from the reservoir structure to the immediate parcel boundary would vary from 20 to 60 feet (**Figure 2-11**). However, the reservoir parcel is surrounded to the west, north, and east by other steeply graded parcels that would not be developed and would not be publicly accessible (**Figure 5-1**). South of the reservoir parcel is open space. Thus, although the reservoir would be within 50 feet of the parcel boundary in some locations, adjoining parcels would provide additional space between planned roads and houses. The Backcountry Reservoir would adhere to the Newhall Ranch Specific Plan design guidelines to ensure the reservoir and fencing blend into the landscape to the extent possible and would be at least 50 feet from proposed roads and residences in the vicinity to functionally meet the 50-foot setback requirement. Conflict with applicable zoning and other regulations governing scenic quality would be less than significant with implementation of mitigation measure SP 4.7-1 and the proposed partially buried tank would be similar to the aboveground tank that was evaluated in the Mission Village EIR.

Figure 5-1: FivePoint Development Map near Backcountry Reservoir

Source: Adapted from FivePoint map of Phase 1, 2A, 2B-1 & 3B of Development Area 1 Product Exhibit (FivePoint Communities, 2022).

Backcountry Pump Station

The Backcountry Pump Station is located within the urbanized area of the City of Santa Clarita, on a parcel zoned as Business Park. The City of Santa Clarita Community Character and Design Guidelines for industrial/business park areas state that utility lines from the service drop to the site should be underground, outdoor equipment should not be placed adjacent to public ways or trails, and outdoor equipment should be screened using a combination of elements such as masonry walls, berms, and landscaping (City of Santa Clarita, 2009). The SCE service connection to the Backcountry Pump Station would be below ground, as would the distribution pipelines. The Backcountry Pump Station site is adjacent to the existing Iron Horse trail recreational trail and would be visible from the trail. The trail has existing views of infrastructure such as power lines in the vicinity. The site would not be publicly accessible, and most equipment would be housed in the pump building. Thus, the Backcountry Pump Station would be in compliance with applicable zoning regulations and regulations governing scenic quality.

Mission Village EIR Findings

The Mission Village EIR concluded overall that the Mission Village project and cumulative development would significantly alter the visual characteristics of the project site and surrounding area and result in significant unavoidable impacts. The Mission Village project would cause a substantial change in the visual

qualities of the area and impacts to some scenic vistas would be significant during and after construction even with implementation of mitigation measures.

Conclusion: The Backcountry Reservoir and Pump Station Project would not conflict with applicable zoning and other regulations governing scenic quality, nor create any new significant visual impacts or create a substantial increase in the severity of significant impacts to scenic vistas identified in the Mission Village EIR. No additional mitigation measures would be necessary because the Backcountry Reservoir would not be more visually obtrusive than the aboveground tank described in the Mission Village EIR and the Backcountry Pump Station would not conflict with existing regulations governing scenic quality, although the impact, related to the Mission Village development, would remain significant and unavoidable, as disclosed in the Mission Village EIR.

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

No New Impact.

Backcountry Reservoir

The Backcountry Reservoir would include minimal lighting on site and reflective surfaces would be minimal. Lighting would be oriented to prevent light intrusion onto adjacent areas. Impacts would be less than significant with implementation of mitigation measure SP 4.7-1 that would ensure compatibility with design standards of the Newhall Ranch Specific Plan.

Backcountry Pump Station

The City of Santa Clarita Community Character and Design Guidelines for industrial/business park areas would apply to lighting at the Backcountry Pump Station site. These guidelines stipulate that lighting should be used to provide illumination for security and safety, lighting should be minimized to reduce impacts to the night sky, and light leak into adjacent sites should be avoided (City of Santa Clarita, 2009). Like the Backcountry Reservoir, the Backcountry Pump Station would include minimal lighting on site. Lighting would be designed such that it is directed downward and does not spill onto adjacent properties. Lighting would be limited to the level necessary to ensure security and safety on site. Exterior daytime lighting would not be used. Reflective exterior surfaces would be minimized. With these design features, the Backcountry Pump Station would not create a new source of light or substantial glare, and the impact to views would be less than significant.

Mission Village EIR Findings

The Mission Village EIR concluded that even with implementation of design standards to minimize the outward and upward migration of nighttime light, changes in the night sky would occur resulting in a significant impact.

Conclusion: The proposed Project would not create any new significant light and glare impacts or create a substantial increase in the severity of significant nighttime impacts identified in the Mission Village EIR. No additional mitigation measures would be necessary because the Backcountry Reservoir would not generate more light and glare than the aboveground tank described in the Mission Village EIR, and the Backcountry Pump Station would not increase the light and glare impacts identified in the Mission Village EIR.

Applicable Mitigation Measures from Mission Village EIR and Newhall Ranch Program EIR:

Newhall Ranch Specific Plan Program EIR (SP) 4.7-1: In conjunction with the development review process set forth in Chapter 5 of the Specific Plan, all future subdivision maps and other discretionary permits which allow construction shall incorporate the Development Guidelines (Specific Plan, Chapter 3) and Design Guidelines (Specific Plan Chapter 4), and the design themes and view considerations listed in the Specific Plan (Mission Village Vesting Tentative Tract Map 61105 and the applicable related discretionary permits incorporate the Specific Plan Development and Design Guidelines consistent with the requirements of the Specific Plan and this mitigation measure).

SCV Water Implementation Action for SP 4.7-1: In design of the proposed Magic Mountain 1 Reservoir Project, SCV Water shall consider and incorporate to the extent applicable the Design Guidelines of the Newhall Ranch Specific Plan (Chapter 4) and the design themes and view considerations listed in the Newhall Ranch Specific Plan to ensure that the reservoir and fencing blend into the landscape, and aesthetic treatments are incorporated to soften views of the reservoir.

New Mitigation Measures:

None needed.

5.2 Agriculture and Forestry Resources

Would the Project:	<i>New Potentially Significant Impact</i>	<i>New Mitigation Required</i>	<i>No Impact/ No New Impact</i>	<i>Reduced Impact</i>
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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))?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Result in the loss of forest land or conversion of forest land to non-forest use?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Discussion

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

No New Impact.

Backcountry Reservoir

The Backcountry Reservoir is located on land that was formally designated Grazing Land (not Prime Farmland of Statewide Importance) according to the Mission Village EIR. Loss of grazing land was not considered a significant impact in the EIR. The Backcountry Reservoir site is designated for non-agriculture use in the Newhall Ranch Specific Plan and is designated as a “Public Facility – Water Tank” in the Mission Village Land Use Plan. The Backcountry Reservoir would not convert farmland of Statewide Importance. No impact would occur.

Backcountry Pump Station

The Backcountry Pump Station would be located on land that is formally designated Prime Farmland according to the California Department of Conservation (CDOC, 2016). However, the site is not currently used for agriculture; it is primarily occupied by a parking lot. The Backcountry Pump Station site is designated as Business Park by the City of Santa Clarita (City of Santa Clarita, 2016). Although the Backcountry Pump Station would be located on an area designated as Prime Farmland, the site has already been converted away from Prime Farmland. The distribution pipelines would be located in Magic Mountain Parkway. Therefore, the Backcountry Pump Station would not convert farmland of Statewide Importance and no impact would occur.

Mission Village EIR Findings

The Mission Village EIR identified that buildout of the Mission Village development would result in conversion of prime agricultural land resulting in a significant impact with no feasible mitigation to reduce these impacts.

Conclusion: The proposed Project would not create any new significant agricultural resource impacts or create a substantial increase in the severity of agricultural resources identified in the Mission Village EIR. The Backcountry Reservoir would be located on the same site as the tank described in the Mission Village EIR, and the Backcountry Pump Station would be located on a site that has already been converted away from agricultural use. No additional mitigation measures would be necessary although the impact, related to the Mission Village development, would remain significant and unavoidable, as disclosed in the Mission Village EIR.

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

No New Impact.

Backcountry Reservoir

As discussed in the Agriculture and Forestry Resources Impact a), the Backcountry Reservoir site is the same site that was proposed for the tank that was included in the Mission Village EIR. The site is currently zoned for non-agricultural uses within the Newhall Ranch Specific Plan and is not located on land contracted under the Williamson Act. No lands within Los Angeles County are under Williamson Act

contracts since Los Angeles County does not participate in the Williamson Act program (CDOC, 2019). Therefore, the Backcountry Reservoir would not conflict with existing zoning for agricultural use or a Williamson Act contract. No impact would occur.

Backcountry Pump Station

The Backcountry Pump Station would be located in the City of Santa Clarita on a site zoned as Business Park, and associated distribution pipelines would be in the Magic Mountain Parkway right-of-way. Neither would be located on agricultural or Williamson Act land, and no impact would occur.

Mission Village EIR Findings

The Mission Village EIR identified that buildout of the Mission Village development would not conflict with existing agricultural zoning use or a Williamson Act contract. Area within the Newhall Ranch specific plan was re-zoned for non-agricultural use with adoption of the Newhall Ranch Specific Plan in 2003. No lands within Los Angeles County are under Williamson Act contracts since Los Angeles County does not participate in the Williamson Act program (CDOC, 2019).

Conclusion: The proposed Project would not create any new agricultural resource impacts or a substantial increase in the severity of agricultural resources identified in the Mission Village EIR that would conflict with existing zoning for agricultural use or a Williamson Act contract, and no additional mitigation measures would be necessary.

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))?

No New Impact.

Backcountry Reservoir

As discussed in the Agriculture and Forestry Resources impact a), the Backcountry Reservoir site was zoned for non-agricultural uses with adoption of the Newhall Ranch Specific Plan. Therefore, the Backcountry Reservoir would not conflict with existing zoning of forest land or timberland. No impact would occur.

Backcountry Pump Station

The Backcountry Pump Station site is zoned for non-agricultural uses (Business Park); therefore, the Backcountry Pump Station would not conflict with existing zoning of forest land or timberland and there would be no impact.

Mission Village EIR Findings

The Mission Village EIR identified that buildout of the Mission Village development would not conflict with existing forest or timberland and the Backcountry Reservoir site is the same that was addressed in the Mission Village EIR. The area within the Newhall Ranch specific plan was re-zoned for development with adoption of the Newhall Ranch Specific Plan in 2003.

Conclusion: The proposed Project would not create any new agricultural resource impacts or a substantial increase in the severity of agricultural resources identified in the Mission Village EIR that would conflict

with existing zoning or cause rezoning of, forest or timberland and no additional mitigation measures would be necessary.

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

No Impact.

Backcountry Reservoir

The Backcountry Reservoir site is located on land that was previously identified as grazing land but has since been zoned for non-agricultural uses and rough graded. The site is currently located entirely on artificial fill devoid of vegetation. Therefore, the Backcountry Reservoir would not result in the loss of forest land or conversion of forest land to non-forest use, which is consistent with the findings in the Mission Village EIR. No impact would occur.

Backcountry Pump Station

The Backcountry Pump Station site is not forested; it is occupied by asphalt paving and sparse weedy vegetation. Distribution pipelines would be located in the roadway right-of-way. Therefore, construction of the Backcountry Pump Station would not result in the loss or conversion of forest land. No impact would occur.

Mission Village EIR Findings

The Mission Village EIR identified that buildout of the Mission Village development would not result in the loss of forest land or conversion of forest land to non-forest use. As stated in the Mission Village EIR, the northeast portion of the Mission Village tentative tract map site is used presently for agricultural purposes. The rest of the site is primarily open space, with remnants of abandoned oil and gas operations dispersed throughout the project site. Field investigations undertaken during the Mission Village EIR development identified three existing land use types (agriculture, developed areas, and disturbed lands) on the Mission Village development site (County of Los Angeles, 2010a).

Conclusion: The proposed Project would not result in the loss of forest land or conversion of forest land to non-forest use, and no additional mitigation measures would be necessary.

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?

No New Impact.

Backcountry Reservoir

The Backcountry Reservoir site is located on an approximate one acre of rough graded parcel, underlain by artificial fill, and devoid of vegetation, with no surrounding lands designated as Farmland. The reservoir is proposed to provide operational and emergency storage of potable water to customers in the SCV Water service areas; construction and operation of the proposed Project would not result in any changes to the environment that could convert farmland or forest land. No impact would occur.

Backcountry Pump Station

The Backcountry Pump Station site is located on an approximately 11-acre parcel, which is currently paved, with sparse ruderal vegetation. No surrounding lands are designated as Farmland. The purpose of the

Backcountry Pump Station is to provide pressure to deliver water to Backcountry Reservoir, the Backcountry Pump Station itself would not involve other changes in the environment outside the reservoir site. The Backcountry Pump Station would not result in changes to the environment that could convert farmland or forest land, and no impact would occur.

Mission Village EIR Findings

The Mission Village EIR identified that buildout of the Mission Village development would result in conversion of Farmland to non-agricultural use resulting in a significant impact with no feasible mitigation to reduce these impacts. Field investigations undertaken during the Mission Village EIR development did not identify any forest land within the Mission Village development, so no impact would occur.

Conclusion: The proposed Project would not create any new significant agricultural resource impacts or involve other changes in the existing environment in addition to any development identified in the Mission Village EIR, and no additional mitigation measures would be necessary.

Applicable Mitigation Measures from Mission Village EIR and Newhall Ranch Program EIR:

None needed

New Mitigation Measures:

None needed.

5.3 Air Quality

Would the Project:	<u>Impact</u>	<i>New Potentially Significant</i>	<i>New Mitigation Required</i>	<i>No Impact/ No New Impact</i>	<i>Reduced Impact</i>
a) Conflict with or obstruct implementation of the applicable air quality plan?		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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?		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Expose sensitive receptors to substantial pollutant concentrations?		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Result in other emissions (such as those leading to odors or adversely affecting a substantial number of people?)		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Discussion

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

No New Impact.

Backcountry Reservoir and Pump Station

As discussed in Section 2.3, Existing Environmental Setting, the Backcountry Reservoir and Pump Station sites are under SCAQMD jurisdiction within the SCAB. The SCAQMD monitors air pollutant levels in the SCAB to ensure California Ambient Air Quality Standards (CAAQS) and National Ambient Air Quality Standards (NAAQS) are met and develops strategies to attain those standards if they are not met. The SCAQMD's 2016 Air Quality Management Plan (AQMP) is the applicable air quality plan that regulates air quality in the proposed Project area. It summarizes the attainment status of criteria pollutants in the SCAB and regional strategies to reach attainment. Criteria pollutant levels within the AQMP are classified as being in "attainment" or "nonattainment" depending on whether levels meet or exceed NAAQS or CAAQS. Under NAAQS, the SCAB is in nonattainment status for 1-Hour and 8-Hour Ozone (O₃), 24-Hour and Annual PM_{2.5} and partial nonattainment status for Lead (Pb) (SCAQMD, 2018). Under CAAQS, the SCAB is in nonattainment status for 1-Hour and 8-Hour O₃, Annual PM_{2.5}, and 24-Hour and Annual PM₁₀. The 2016 AQMP emissions inventory and strategies were developed based on population, housing units, total employment, and daily vehicle miles traveled (VMT) growth forecasts provided by the Southern California Association of Governments (SCAG) from its adopted 2016 Regional Transportation Plan / Sustainable Communities Strategy (RTP/SCS).

The Backcountry Reservoir involves construction of a partially buried potable water reservoir and access road on a 1-acre site to provide an operational and emergency potable water storage reservoir for SCV Water users in SCV Water's Zone B/Magic Mountain Zone. The Backcountry Pump Station would supply water to the Backcountry Reservoir. The distribution pipelines would provide connections to existing SCV Water service areas (Zone I and Zone IIA-N) to optimize service to certain pressure zones. The proposed Project would not serve water outside existing developed areas or planned developments; thus, it would not result in an inconsistency with the growth forecasts in the SCAG 2016 RTP/SCS,¹ upon which the 2016 AQMP was based. The proposed Project is not a new source of water supply and would not induce unplanned growth. Accordingly, the proposed Project would not conflict with or obstruct the SCAQMD's 2016 AQMP because it would not lead to population, housing, employment, or growth that exceeds the forecast used in development of the AQMP. Therefore, the proposed Project would not jeopardize attainment of state and federal ambient air quality standards. Impacts would be less than significant which would be similar to the impacts of a tank located at the same site described in the Mission Village EIR.

Mission Village EIR Findings

The Mission Village EIR concluded that population growth attributed to the Newhall Ranch Specific Plan is within the growth forecasts of the AQMP.

Conclusion: The Backcountry Reservoir and Pump Station Project would not obstruct implementation of the AQMP, which consistent with the conclusion described in the Mission Village EIR. Therefore, the proposed Project would have no new impact, and no mitigation measures would be needed.

¹ SCAG completed an update to the Regional Transportation Plan/Sustainable Communities Strategy in 2020 (known as Connect SoCal). SCAQMD is currently preparing the 2022 Air Quality Management Plan, which will reflect updated growth projections from Connect SoCal. However, the existing AQMP relies on the 2016 Regional Transportation Plan/Sustainable Communities Strategy.

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?

No New Impact.

Backcountry Reservoir and Pump Station

Similar to the water tank described at the same site in the Mission Village EIR, the Backcountry Reservoir would result in emissions of criteria pollutants (NO_x, VOC, PM₁₀, PM_{2.5}, CO, and SO_x) during construction and operation. Emissions of construction air pollutant emissions (from excavation, equipment, construction vehicles) and operational air pollutant emissions (from maintenance worker vehicle trips) were estimated using the California Emissions Estimator Model (CalEEMod) version 2022.1 for both the reservoir and pump station. The combined Backcountry Reservoir and Pump Station construction and operational air pollutant emissions were compared to the SCAQMD significance thresholds. No exceedances of the significance thresholds would be expected during construction and operation with implementation of construction best management practices outlined in Section 2.4 of this evaluation (i.e., the construction contractor would be to implement a Fugitive Dust Control Plan, prepared in accordance with SCAQMD's Rule 403, and approved by SCAQMD prior to grading or excavation activities; and would be required to comply with CARB In-Use Off-Road Diesel-Fueled Fleets Regulations). Therefore, impacts would be less than significant, and no mitigation would be required, which would be similar to impacts of the water tank described in the Mission Village EIR. Details of the air quality analysis are contained in **Appendix A** and model output data is provided in **Appendix B**.

Mission Village EIR Findings

The Mission Village EIR identified that construction-related and operational-related emissions from all proposed land uses would exceed SCAQMD thresholds of significance for NO_x, VOC, PM₁₀, and PM_{2.5} and no feasible mitigation exists to reduce impacts to less than significant.

Conclusion: The proposed Backcountry Reservoir and Pump Station Project would not create any new significant air quality impacts or create a substantial increase in the severity of air quality impacts identified in the Mission Village EIR, and no additional mitigation measures would be necessary, although the impact, related to the Mission Village development, would remain significant and unavoidable, as disclosed in the Mission Village EIR.

c) Expose sensitive receptors to substantial pollutant concentrations?

No New Impact.

Backcountry Reservoir

For the purposes of a CEQA analysis, the Mission Village EIR considered ¼-mile as the distance to use in evaluating impacts on sensitive receptors, which include long-term health care facilities, rehabilitation centers, convalescent centers, retirement homes, residences, schools, playgrounds, childcare centers, and athletic facilities. As stated in the Mission Village EIR, the SCAQMD recommends the evaluation of localized air quality impacts to sensitive receptors in the immediate vicinity of the Backcountry Reservoir site through the use of SCAQMD-established Localized Significance Thresholds (LSTs). 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, taking into consideration ambient concentrations in each source receptor area, distance to the sensitive receptor, and project size. LSTs only apply to emissions within a fixed stationary location (i.e., are not

applicable to mobile sources) and are defined for each of the SCAB's 37 source receptors areas (SRAs). The Backcountry Reservoir site is located within SRA 13 and LSTs have been defined for NO_x, CO, PM₁₀ and PM_{2.5}. The closest sensitive receptors to the Backcountry Reservoir site are residences and the West Ranch High School located roughly 0.75 mile away along the northwestern border of Stevenson Ranch. Because there are no sensitive receptors within the ¼-mile distance for evaluating impacts to sensitive receptors, the Backcountry Reservoir would have a less than significant impact on nearby sensitive receptors, which would be similar to the tank described on the same site in the Mission Village EIR.

Backcountry Pump Station

The Backcountry Pump Station site is also located in SRA 13. The nearest sensitive receptors to the site are located to the east, along Magic Mountain Parkway, approximately 1,000 feet from the pump station location. LSTs have been developed for emissions within construction areas up to five acres in size. The SCAQMD provides lookup tables for sites that measure up to one, two, or five acres. The pump station site footprint would be approximately one acre, so the LST for the one-acre site is used. LSTs for construction on one-acre sites in SRA-17 are shown in Table 5-1. LSTs are provided for a distance of 200 meters (656 feet) from the pump station.

Table 5-1: Localized Significance Thresholds

Pollutant	Allowable emission from a one-acre site in SRA-13 for a receptor within 200 meters, or 656 feet (pounds/day)
Gradual Conversion of NO _x to NO ₂	173
CO	2,500
PM ₁₀ – operation	13
PM ₁₀ – construction	51
PM _{2.5} – operation	5
PM _{2.5} – construction	18

As shown in Table 5-2, pollutant emissions from pump station construction and operation would not exceed the LSTs. Therefore, the Backcountry Pump Station would have a less than significant impact on nearby sensitive receptors and would not have a greater impact than the tank described in the Mission Village EIR.

Table 5-2: Backcountry Pump Station Construction Emissions Compared to Localized Significance Thresholds (pounds/day)

Emissions Source	NO _x	CO	PM ₁₀	PM _{2.5}
Maximum onsite	16	15	3	2
LST (one-acre, 200 meters LST)	173	2,500	51	18
Threshold exceeded?	No	No	No	No

Note: Emissions represent the maximum of winter or summer and are rounded to the nearest whole number.

Mission Village EIR Findings

The Mission Village EIR noted that emissions exceed thresholds of significance and LSTs, but concluded that construction emissions are below thresholds for creating a health hazard to sensitive receptors.

Conclusion: The Backcountry Reservoir and Pump Station Project would not create any new air quality health hazards to sensitive receptors or create a substantial increase in the severity of impacts identified in the Mission Village EIR, and no additional mitigation measures would be necessary because the reservoir would be located on the same site as the tank identified in the Mission Village EIR, and because the pump station would have a less than significant impact on local air quality.

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

No New Impact.

Backcountry Reservoir and Pump Station

The Backcountry Reservoir and Pump Station Project would generate minimal emissions of odorous compounds during construction, which would be associated with emissions from construction equipment; this would impact would be the same for the tank described in the Mission Village EIR. Operation is not expected to generate any odors because the reservoir and pump station would be fully enclosed and would contain potable water, which is odorless, and no chemicals would be stored on site during long-term operation and maintenance of the tank. Less than significant impacts would be expected.

Mission Village EIR Findings

No significant impacts related to odors were identified in the Mission Village EIR.

Conclusion: The proposed Backcountry Reservoir and Pump Station Project would have the same odor impacts as the tank evaluated in the Mission Village EIR and would not create any new air quality impacts related to odorous emissions or create a substantial increase in impacts identified in the Mission Village EIR, and no additional mitigation measures would be necessary.

Applicable Mitigation Measures from Mission Village EIR and Newhall Ranch Program EIR:

SP 4.10-7: Prior to the approval of each future subdivision proposed in association with the Newhall Ranch Specific Plan, each of the construction emission reduction measures indicated below (and in Tables 11-2 and 11-3 of the SCAQMD's CEQA Air Quality Handbook, as amended) shall be implemented if found applicable and feasible for that subdivision.

On-Road Mobile Source Construction Emissions

- a. Configure construction parking to minimize traffic interference.
- b. Provide temporary traffic controls when construction activities have the potential to disrupt traffic to maintain traffic flow (e.g., signage, flag person, detours).
- c. Schedule construction activities that affect traffic flow to off-peak hours (e.g., between 7:00 PM and 6:00 AM and between 10:00 AM and 3:00 PM).
- d. Develop a trip reduction plan to achieve a 1.5 average vehicle ridership (AVR) for construction employees.
- e. Implement a shuttle service to and from retail services and food establishments during lunch hours.
- f. Develop a construction traffic management plan that includes the following measures to address construction traffic that has the potential to affect traffic on public streets:

- o Rerouting construction traffic off congested streets;
 - o Consolidating truck deliveries; and
 - o Providing temporary dedicated turn lanes for movement of construction trucks and equipment on and off of the site.
- g. Prohibit truck idling in excess of 2 minutes.

Off-Road Mobile Source Construction Emissions

- h. Use methanol-fueled pile drivers.
- i. Suspend use of all construction equipment operations during second stage smog alerts.
- j. Prevent trucks from idling longer than 2 minutes
- k. Use electricity from power poles rather than temporary diesel-powered generators
- l. Use electricity from power poles rather than temporary gasoline-powered generators.
- m. Use methanol- or natural gas-powered mobile equipment instead of diesel.
- n. Use propane- or butane-powered on-site mobile equipment instead of gasoline.

SCV Water Implementation Action for SP 4.10-7: To prevent excessive emissions of criteria pollutants and greenhouse gases to the extent feasible, SCV Water will prepare bid documents specifying that

- temporary traffic controls (e.g., signage, flag person, detours) be implemented when construction activities have the potential to disrupt traffic in order to maintain traffic flow
- construction activities that affect traffic flow be scheduled to off-peak hours (e.g., between 7:00 PM and 6:00 AM and between 10:00 AM and 3:00 PM)
- on-site construction trucks may not idle for longer than 2 minutes
- use electric vehicles when feasible
- use power poles instead of gasoline and diesel-powered generators.

New Mitigation Measures:

None needed.

5.4 Biological Resources

Would the Project:	<i>New Potentially Significant Impact</i>	<i>New Mitigation Required</i>	<i>No Impact/ No New Impact</i>	<i>Reduced Impact</i>
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,	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

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

Discussion

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

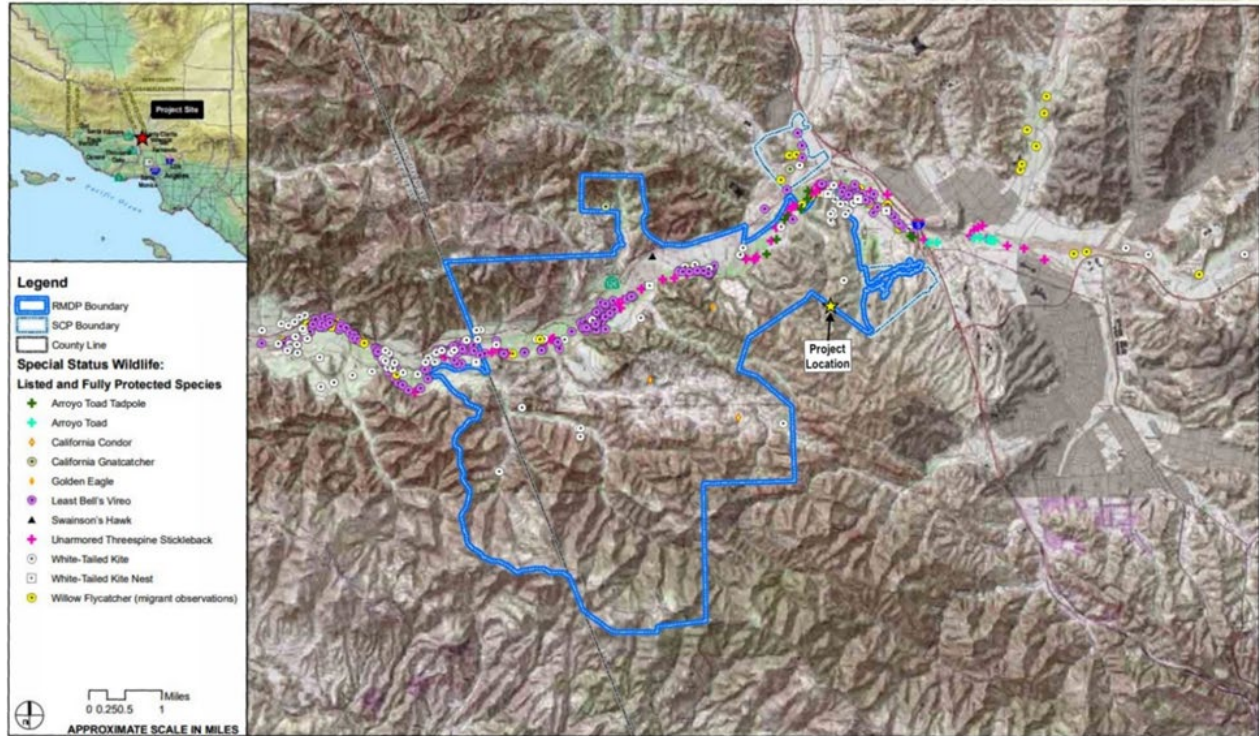
No New Impact.

Backcountry Reservoir

The Backcountry Reservoir site was initially evaluated for biological resources as part of the Mission Village EIR and has since been fully graded. The site is on artificial fill and is completely devoid of vegetation. Thus, no vegetation or habitat that could support any sensitive or special status species exists on the Backcountry Reservoir site and no habitat modifications would occur as a result of reservoir construction. In addition, evaluation of biota in the Mission Village EIR documented no occurrences of listed or California fully protected wildlife within or near the vicinity of the Backcountry Reservoir site (**Figure 5-2**). Portions of the Backcountry Reservoir site's adjacent hillside contain native vegetation that could potentially serve as habitat, but the potential impacts would be the same as those associated with the tank described in the Mission Village EIR. Nevertheless, construction and operation of the Backcountry Reservoir would have less than significant impacts on any species with implementation of mitigation

measures SP 4.6-35, SP 4.6-56 and MV 4.3-52 that ensure construction plans and activities including lighting and grading remain within the designated boundaries of the reservoir site.

Figure 5-2: Listed and California Fully Protected Wildlife Species Occurrences



Source: Mission Village EIR Volume I, Figure 4.3-26 (County of Los Angeles, 2010a)

Backcountry Pump Station

A Biological Resources Assessment (BRA) was prepared for the Backcountry Pump Station site, including the distribution pipelines in Magic Mountain Parkway (SWCA, 2022a). This report is included in **Appendix C**. The BRA included a database search and literature review, as well as a reconnaissance-level flora and fauna survey of the entire area which was conducted in August 2021. The most prevalent land cover type mapped within the survey area was developed/disturbed land, which is mostly devoid of vegetation and has little to no potential to support native species (SWCA, 2022a). Vegetation communities at the site are shown on **Figure 5-3**. Depending on the orientation of the Backcountry Pump Station at the site, a portion of the disturbance area may extend into upland mustard or star-thistle fields, which are a vegetation community dominated by non-native invasive plants. The Magic Mountain Parkway right of way is entirely paved and devoid of vegetation.

Four special-status plant species have potentially suitable habitat present within the survey area: San Fernando Valley spineflower (*Chorizanthe parryi* var. *fernandina*), club-haired mariposa lily (*Calochortus clavatus* var. *clavatus*), slender mariposa-lily (*Calochortus clavatus* var. *gracilis*), and Plummer's mariposa-lily (*Calochortus plummerae*). All four of these special-status plant species have a moderate potential to occur within the survey area but would only be expected in the 100-foot buffer around the pump station disturbance area, not the pump station disturbance area itself. This is due to the heavily impacted soils as a result of the property's prior use for cultivating row crops until 2017, and its current mostly paved state (SWCA, 2022a).

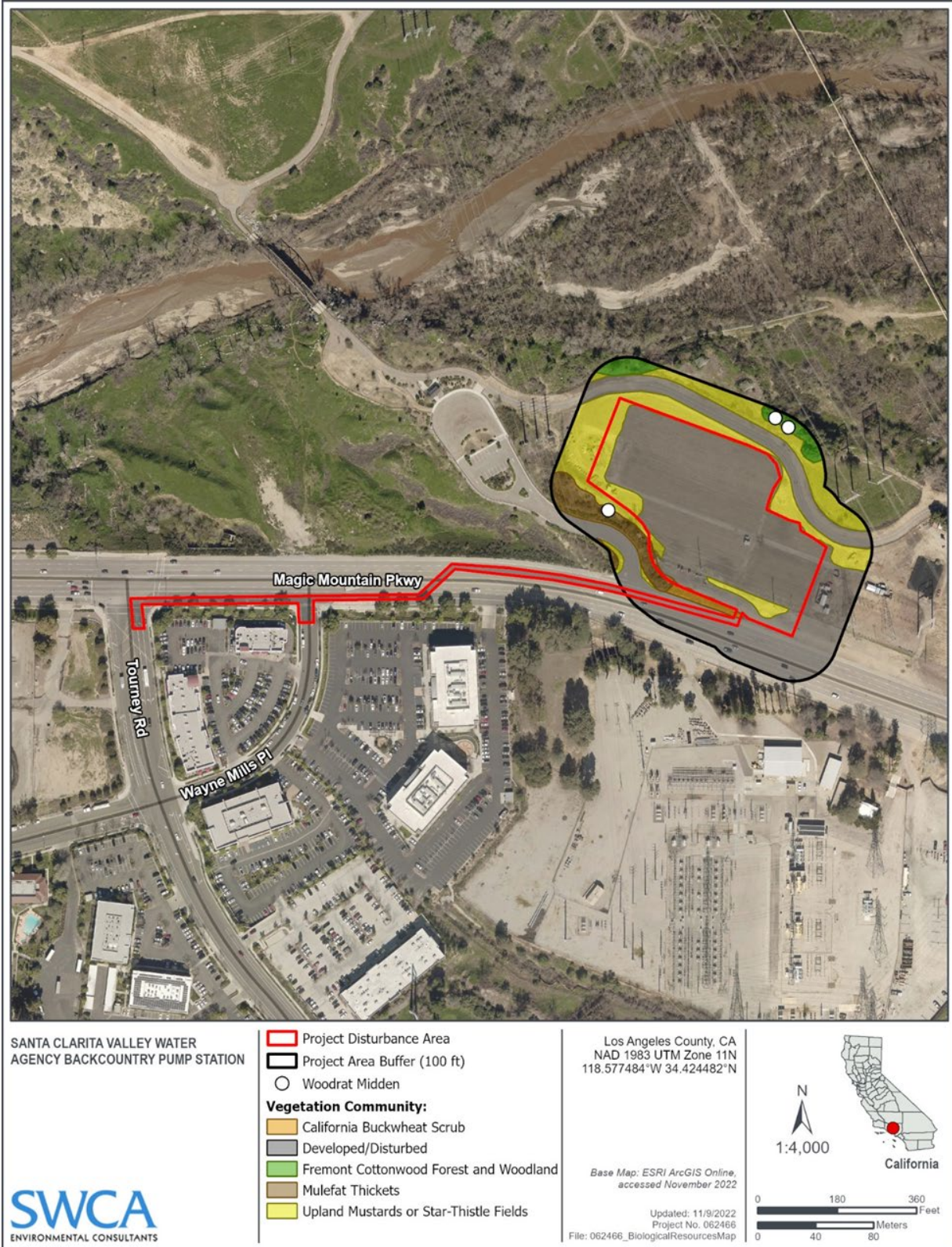
Six special-status wildlife species are considered to have a moderate occurrence potential within the survey area: Cooper's hawk (*Accipiter cooperii*), white-tailed kite (*Elanus leucurus*), least Bell's vireo (*Vireo bellii pusillus*), coastal whiptail (*Aspidoscelis tigris stejnegeri*), western pond turtle (*Emys marmorata*), and coast horned lizard (*Phrynosoma blainvillii*). It is important to note that the pump station disturbance area is already very heavily disturbed (paved and invasive vegetation where unpaved), and thus the wildlife species that do have a moderate potential to occur are expected to occur only within the 100-foot buffer around the disturbance area, where habitat is somewhat intact and provides suitable conditions for life (SWCA, 2022a).

Notably, arroyo toad (*Anaxyrus californicus*) critical habitat partially overlaps the north and west sides of the 100-foot buffer of the pump station disturbance area. The arroyo toad is associated with the riparian habitat of the Santa Clara River. Because there are no quiet waters or pools directly in the survey area, the potential for arroyo toad within the survey area is low (SWCA, 2022a).

No impacts are expected to occur within the disturbance area of the Backcountry Pump Station and distribution pipelines. All sensitive flora and fauna determined to have a moderate potential to occur within the survey area do not occur due to the high level of disturbance and lack of habitat (SWCA, 2022a). No native habitat is expected to be disturbed as part of pump station construction or operation and thus would not impact listed species.

There would be no direct impacts to biological resources due to the level of disturbance within the footprint of the pump station and pipelines. Indirect impacts to birds and reptiles would be avoided or mitigated through implementation of mitigation measures included in the Mission Village EIR (SP 4.6-35, MV 4.3-5, MV 4.3-7, MV 4.3-15 and MV 4.6-56). With adherence to these mitigation measures, the Backcountry Pump Station and distribution pipelines would not have a substantial adverse effect on special-status species and the impact would be less than significant.

Figure 5-3: Biological Resources at Backcountry Pump Station Site



Mission Village EIR Findings

The Mission Village EIR concluded that although impacts to biological resources would be less than significant with implementation of mitigation measures identified in the Newhall Ranch Specific Plan Program EIR and Mission Village EIR, build out of the Mission Village development would result in cumulative impacts to the coastal scrub and San Fernando Valley spineflower that would be significant and unavoidable. Mitigation measures were incorporated to reduce project impacts to less than significant. However significant cumulative impacts would still remain to regional coastal scrub habitat and the San Fernando Valley spineflower.

Conclusion: The proposed Project would not create any new biological resource impacts or create a substantial increase in the severity of biological resource impacts identified in the Mission Village EIR. The Backcountry Reservoir would be located on the same site as the tank described in the Mission Village EIR. The Backcountry Pump Station would have a less than significant impact on biological resources with the implementation of measures included in the Mission Village although the impact, related to the Mission Village development, would remain significant and unavoidable, as disclosed in the Mission Village EIR. Thus, the Project would have no new impact.

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

No New Impact.

Backcountry Reservoir

As discussed in Biological Resources Impact a), the Backcountry Reservoir site is located on a fully graded parcel, underlain by artificial fill, and contains no vegetation or sensitive natural communities. The Mission Village development area contains protected and preserved lands including the Spineflower Preserve, Santa Clara River Corridor, Salt Creek Corridor and the High Country Special Management Area (SMA), that contain designated critical habitat by the CDFW and USFWS, respectively (**Figure 5-4**). The Backcountry Reservoir site, as with the tank site described in the Mission Village EIR, is not located within or near these protected and preserved lands including the Riparian Habitat Buffer of the Santa Clara River (**Figure 5-5**). Therefore, no adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies and regulations would occur.

Backcountry Pump Station

As discussed in Biological Resources impact a), the Backcountry Pump Station site is located on a paved site with a history of disturbance. The contiguous riparian canopy of the Santa Clara River extends into the northern portion of the 100-foot buffer of the Backcountry Pump Station disturbance area, but no riparian habitat or other sensitive natural community exists in the disturbance area (SWCA, 2022a). Additionally, the distribution pipelines would be located entirely within the paved right of way of Magic Mountain Parkway. Therefore, the Backcountry Pump Station and distribution pipelines would not adversely affect riparian habitat or sensitive natural communities, and there would be no impact.

Mission Village EIR Findings

The Mission Village EIR identified that the Mission Village development would result in the permanent conversion of, or temporary disturbance to, 1,493 acres of various natural habitats. The EIR discusses compliance with the Resource Management Plan (RMP) of the Newhall Ranch Specific Plan to address

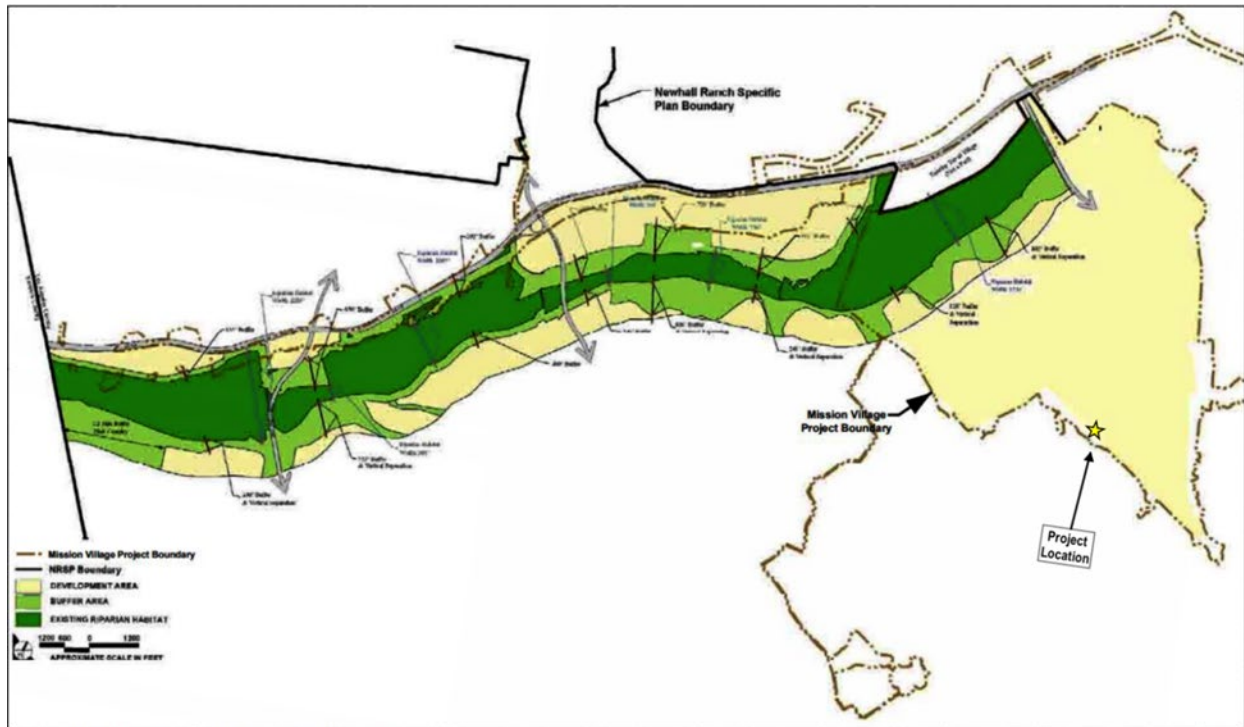
impacts to riparian habitat and other sensitive natural communities. The RMP was reviewed and ultimately approved by the federal and state resources agencies to protect critical habitat and special status species, and included as part of Los Angeles County's adoption of the Newhall Ranch Specific Plan. To address permanent loss of riparian habitat, the Mission Village would implement habitat restoration/enhancement in the River Corridor Special Management Area/Significant Ecological Area 23 (SMA/SEA 23), and to address loss of upland wildlife habitat, Mission Village would create a large connected open space system including the River Corridor SMA/SEA 23, the High Country SMA/SEA 20, and the Salt Creek area shown in **Figure 5-4**. Additionally, a Spineflower Preserve was proposed in the Newhall Ranch Specific Plan Program EIR that would provide habitat for potential spineflower pollinators and dispersal agents within Mission Village area. However, while the Mission Village EIR concluded that the proposed Mission Village development would not result in significant unavoidable impacts (after implementation of all mitigation measures), the project's contribution to cumulative impacts to coastal scrub would remain significant.

Conclusion: The proposed Project would not create any new adverse effects on riparian habitat or other sensitive natural community identified in the Mission Village EIR. The Backcountry Reservoir would be located on the same site as the tank described in the Mission Village EIR, and the Backcountry Pump Station and distribution pipelines would be located on disturbed land. No additional mitigation measures would be necessary.

Figure 5-4: Protected and Preserved Lands



Source: Mission Village EIR Volume I, Figure 4.3-1 (County of Los Angeles, 2010a)

Figure 5-5: Riparian Habitat Buffer

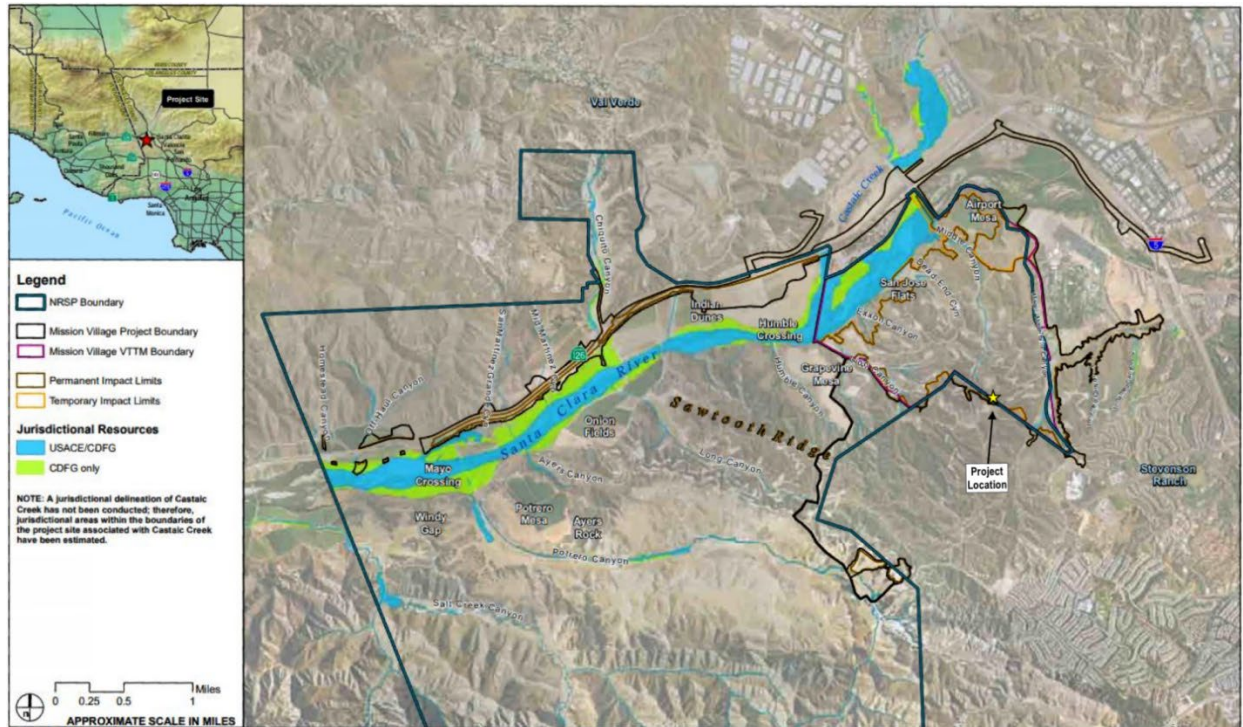
Source: Mission Village EIR Volume I, Figure 4.3-8 (County of Los Angeles, 2010a)

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?

No New Impact.

Backcountry Reservoir

Wetlands, creeks, streams, and permanent and intermittent drainages are generally subject to the jurisdiction of the United States Army Corps of Engineers (USACE) under Section 404 of the federal Clean Water Act. Streambeds within the Project site are subject to regulation by the CDFW under Section 1602 of the California Fish and Game Code. A Preliminary Jurisdictional Determination included as part of the Mission Village EIR identified a total of 180.6 acres within the Mission Village development under jurisdiction of the USACE (County of Los Angeles, 2010a). The Preliminary Jurisdictional Determination also determined CDFW jurisdiction encompasses an additional 53.4 acres of riparian vegetation on the Mission Village site (County of Los Angeles, 2010a). As discussed in Biological Resources impact a), the Backcountry Reservoir site is located entirely on a fully graded, artificial fill pad, devoid of vegetation and does not occur within an area determined to be under state or federal jurisdiction (**Figure 5-6**). Therefore, the Backcountry Reservoir would have no impact to state or federally protected wetlands.

Figure 5-6: Jurisdictional Resources

Source: Mission Village EIR Volume I, Figure 4.3-7 (County of Los Angeles, 2010a)

Backcountry Pump Station

No jurisdictional resources were identified within the disturbance area of the Backcountry Pump Station site and distribution pipelines (SWCA, 2022a). Potentially jurisdictional resources were identified along the northern edge of the 100-foot buffer area around the disturbance area; however, this area would not be impacted by the Backcountry Pump Station. Project activities would include discharges into the LACDPW storm drain, which would require Flood Control District approval and pre-approved discharge locations (as noted in Section 2.4, Proposed Project); no discharges to the Santa Clara River or any other jurisdictional water would occur. Thus, the Backcountry Pump Station would have no impact.

Mission Village EIR Findings

The Mission Village EIR determined that the Mission Village Development Project would impact wetlands under state and federal jurisdiction, and would require permits from the USACE and CDFW. The permits require avoidance, minimization measures, and compensatory mitigation for impacts to jurisdictional resources. As part of the Newhall Ranch Specific Plan RMP and mitigation measures in the Mission Village EIR, mitigation of impacts would involve wetland and riparian habitat restoration and enhancement in the River Corridor SMA, along with long-term habitat monitoring and assessment. With implementation of all provisions in the RMP and mitigation measures conditions, impacts were found to be less than significant to federal and state protected wetlands.

Conclusion: The proposed Project would not create an increase in any adverse effect on state or federally protected wetlands identified in the Mission Village EIR because the Backcountry Reservoir would be located on the same site as the tank described in the Mission Village EIR, and the Backcountry Pump

Station would not directly or indirectly impact wetlands. No additional mitigation measures would be necessary.

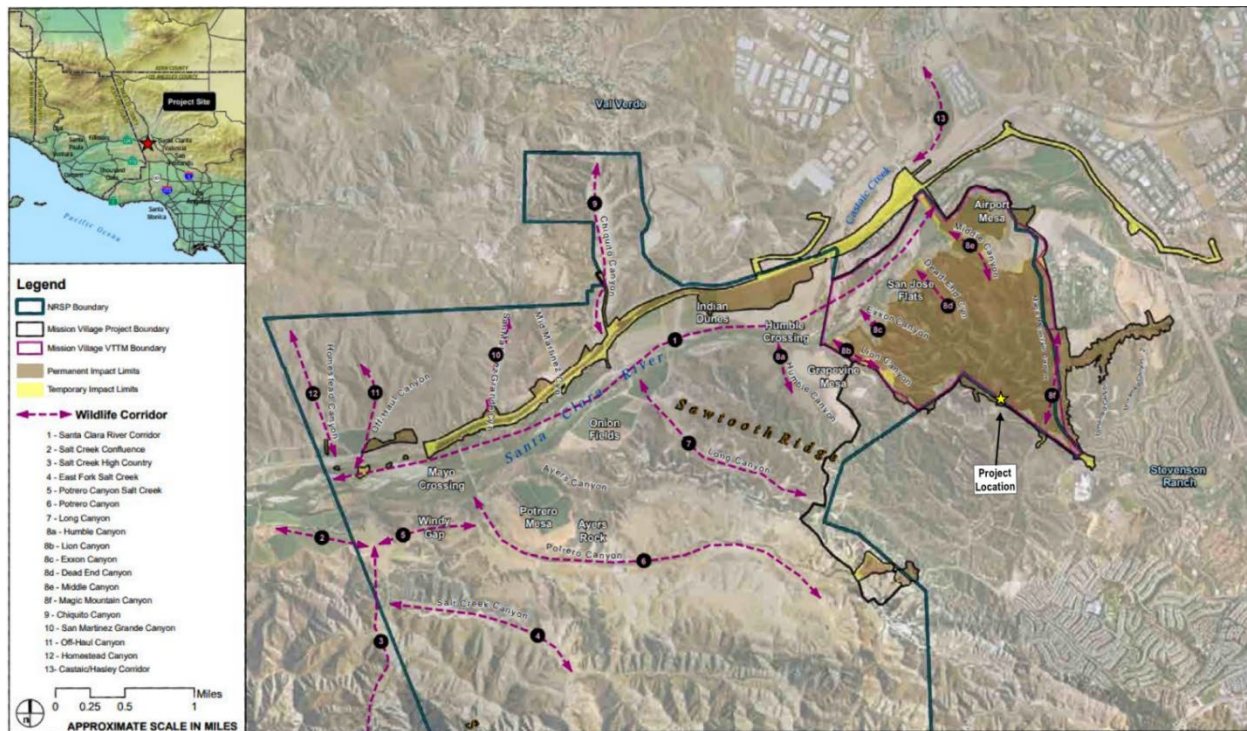
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?

No New Impact.

Backcountry Reservoir

As discussed in Biological Resources impact a), the Backcountry Reservoir site is located on a fully graded parcel, underlain with artificial fill, and devoid of vegetation. The reservoir site does not contain any habitat that would support a wildlife nursery site. The Backcountry Reservoir site is also not located within any potential wildlife movement corridors (Figure 5-7). The proposed Project would not interfere with the movement of any native resident or migratory fish or with established native resident or migratory wildlife corridors. No impact would occur.

Figure 5-7: Potential Wildlife Movement Corridors



Source: Mission Village EIR Volume I, Figure 4.3-5 (County of Los Angeles, 2010a)

Backcountry Pump Station

As discussed in Biological Resources impact a), the Backcountry Pump Station is located on a heavily disturbed area. The disturbance area of the Backcountry Pump Station and distribution pipelines does not contain any habitat that would support a wildlife nursery site. There are no designated wildlife corridors on or adjacent to the Backcountry Pump Station site or footprint of the distribution pipelines (SWCA, 2022a). The Backcountry Pump Station site currently provides semi-free (due to the existing fence) wildlife movement for animals of moderate size within the property adjacent to the Santa Clara River and Round

Mountain Open Space, owned by the City of Santa Clarita. However, residential, commercial, and industrial land uses, and the well-traveled Magic Mountain Parkway surround the site to the east, west, and south and already impose significant restrictions to wildlife movement into and out of the site. The Backcountry Pump Station would not construct new fencing that would change the ability of wildlife to move through the site as compared to existing conditions. The Backcountry Pump Station would not hinder wildlife movement or impact nursery sites and no impact would occur.

Mission Village EIR Findings

The Mission Village EIR concluded that the overall mosaic of habitats in the river would be maintained because the Mission Village development project would not cause significant changes in the river's velocities or water depth. In addition, bank stabilization along portions of the Santa Clara River would be designed and constructed to allow the river to continue to function as a regional wildlife corridor. Impacts to the movement or nurseries of any native fish or wildlife species would be less than significant with implementation of mitigation measures.

Conclusion: The proposed Project would not increase impacts to fish and wildlife movement identified in the Mission Village EIR. The Backcountry Reservoir would be located on the same site as the tank described in the Mission Village EIR, and the Backcountry Pump Station would not impact nursery sites or restrict fish and wildlife movement. No additional mitigation measures would be necessary.

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

No New Impact.

Backcountry Reservoir

The Backcountry Reservoir site is located within the jurisdiction of the Santa Clarita Valley Planning Area portion of the Los Angeles County General Plan. Los Angeles County's primary mechanism to conserve biological diversity is by designating lands as SEAs or Coastal Resource Areas (CRAs). As stated in the Los Angeles County General Plan, SEAs are undisturbed or lightly disturbed habitat that support valuable and threatened species, linkages and corridors that facilitate species movement, and are sized to support sustainable populations of its component species (County of Los Angeles, 2015a). In total there are 21 SEAs and nine CRAs designated in Los Angeles County. Although the High Country SMA/SEA and River Corridor SMA/SEA are located within the Mission Village development, the Backcountry Reservoir site is not located within either. In addition, the Backcountry Reservoir site is located entirely on a fully graded parcel, underlain by artificial fill, and devoid of vegetation. There are no biological resources protected by local policies or ordinances within the Backcountry Reservoir site. Therefore, no impact would occur.

Backcountry Pump Station

There are no federal, state, or local parks, or Los Angeles County SEAs on or adjacent to the Backcountry Pump Station site and footprint of the distribution pipelines. There are no biological resources protected by local policies or ordinances within the site. Therefore, no impact would occur.

Mission Village EIR Findings

The Mission Village EIR concluded that all plans and specifications shall follow Los Angeles County oak tree guidelines, as specified in the County Oak Tree Ordinance, and fuel modification ordinance requirements. Mitigation measures are adopted for construction and operation procedures to adhere to these adopted County rules.

Conclusion: The proposed Project would not create additional conflicts with local policies or ordinances protecting biological resources identified in the Mission Village EIR because the Backcountry Reservoir would be located on the same site as the tank described in the Mission Village EIR, and no protected biological resources occur at the Backcountry Pump Station site. No additional mitigation measures would be necessary.

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

No New Impact.

Backcountry Reservoir

As stated in the Mission Village EIR, when Los Angeles County approved the Newhall Ranch Specific Plan, it adopted a Spineflower Special Study Mitigation Overlay and Preservation Program. To implement the program, a Spineflower Conservation Plan was prepared to ensure the long-term survival of spineflower populations within the Newhall Ranch Specific Plan area. The Backcountry Reservoir site does not occur within any areas designated as a Spineflower Preserve (**Figure 5-8**), nor any other local, regional, or state habitat conservation plan area including the High Country SMA/SEA and the River Corridor SMA/SEA (**Figure 5-4**). The Backcountry Reservoir would not conflict with the provisions of an adopted conservation plan. No impact would occur.

Figure 5-8: Mission Village Spineflower Preserve



Source: Mission Village EIR Volume I, Figure 1.0-18 (County of Los Angeles, 2010a)

Backcountry Pump Station

There are no Los Angeles County SEAs on or adjacent to the Backcountry Pump Station site and footprint of the distribution pipelines within Magic Mountain Parkway. Similarly, there is no USFWS Habitat

Conservation Plan or CDFW Natural Community Conservation Plan at or adjacent to the site. As described under Biological Resources impact a), arroyo toad critical habitat partially overlaps the north and west sides of the 100-foot buffer of the pump station disturbance area, however, the potential for arroyo toad to occur at the Backcountry Pump Station site is low. Therefore, the Backcountry Pump Station would not conflict with the provisions of these plans, and there would be no impact.

Mission Village EIR Findings

The Mission Village EIR concluded the Mission Village development project would comply with the land use and mitigation measures of the adopted Newhall Ranch Spineflower Conservation Plan. The Airport Mesa Spineflower Preserve is located within the Mission Village development, and impacts would be less than significant with implementation of mitigation measures.

Conclusion: The proposed Project would not create additional conflicts with an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan local policies or ordinances protecting biological resources identified in the Mission Village EIR, and no additional mitigation measures would be necessary.

Applicable Mitigation Measures from Mission Village EIR and Newhall Ranch Program EIR:

SP 4.6-35: The project biologist shall work with the grading contractor to avoid inadvertent impacts to biological resources outside of the grading area.

SCV Water Implementation Action for SP 4.6-35: SCV Water shall prepare bid documents that specify that a qualified biologist will coordinate with the grading contractor to ensure on-site construction activities avoid impacts to adjacent off-site areas containing native vegetation. This may involve flagging and/or worker environmental awareness training.

SP 4.6-56: All lighting along the perimeter of natural areas shall be downcast luminaries with light patterns directed away from natural areas.

SCV Water Implementation Action for SP 4.6-56: SCV Water shall prepare bid documents that specify that at all lighting along the perimeter, if any, shall be downcast luminaires with light patterns directed away from the undeveloped areas to avoid light spillage into wildlife habitat.

Mission Village EIR (MV) 4.3-5: Prior to initiating construction for the installation of bridges, storm drain outlets, utility lines, bank protection, trails, and/or other construction activities, all construction sites and access roads within the riverbed as well as all riverbed areas within 500 feet of construction sites and access roads shall be surveyed at the appropriate season for southwestern pond turtle. Focused surveys shall consist of a minimum of four daytime surveys, to be completed between April 1 and June 1. The survey schedule may be adjusted in consultation with CDFG to reflect the existing weather or stream conditions. The applicant shall develop a Plan to address the relocation of southwestern pond turtle. The Plan shall include but not be limited to the timing and location of the surveys that would be conducted for this species; identify the locations where more intensive efforts should be conducted; identify the habitat and conditions in the proposed relocation site(s); the methods that would be utilized for trapping and relocating individuals; and provide for the documentation/recordation of the numbers of animals relocated. The Plan shall be submitted to CDFG for approval 60 days prior to any ground-disturbing activities within potentially occupied habitat.

If southwestern pond turtles are detected in or adjacent to the project, nesting surveys shall be conducted. Focused surveys for evidence of southwestern pond turtle nesting shall be conducted in, or adjacent to, the project when suitable nesting habitat exists within 1,300 feet of occupied habitat in an area where project-related ground disturbance will occur (e.g., development, ground disturbance). If both of those conditions

are met, a qualified biologist shall conduct focused, systematic surveys for southwestern pond turtle nesting sites. The survey area shall include all suitable nesting habitat within 1,300 feet of occupied habitat in which project related ground disturbance will occur. This area may be adjusted based on the existing topographical features on a case-by-case basis with the approval of CDFG. Surveys will entail searching for evidence of pond turtle nesting, including remnant eggshell fragments, which may be found on the ground following nest depredation.

If a southwestern pond turtle nesting area would be adversely impacted by construction activities, the applicant shall avoid the nesting area. If avoidance of the nesting area is determined to be infeasible, the authorized biologist shall coordinate with CDFG to identify if it is possible to relocate the pond turtles. Eggs or hatchlings shall not be moved without written authorization from CDFG.

The qualified biologist shall be present during all activities immediately adjacent to or within habitat that supports populations of southwestern pond turtle. Clearance surveys for pond turtles shall be conducted within 500 feet of potential habitat by the authorized biologist prior to the initiation of construction each day. The resume of the proposed biologist will be provided to CDFG for approval prior to conducting the surveys.

SCV Water Implementation Action for MV 4.3-5 and MV 4.3-7: A preconstruction reptile survey shall be performed within five days prior to construction to determine if any of the following species are present: coastal whiptail, Western pond turtle, or coast horned lizard. If any of these species are determined to occur, a biological monitor shall be on-site during all construction activities.

MV 4.3-7: Prior to construction the applicant shall develop a relocation plan for coast horned lizard, silvery legless lizard, coastal western whiptail, rosy boa, San Bernardino ringneck snake, and coast patch-nosed snake. The Plan shall include but not be limited to the timing and location of the surveys that would be conducted for each species; identify the locations where more intensive efforts should be conducted; identify the habitat and conditions in the proposed relocation site(s); the methods that would be utilized for trapping and relocating the individual species; and provide for the documentation/recordation of the species and number of the animals relocated. The Plan shall be submitted to CDFG for approval 60 days prior to any ground disturbing activities within potentially occupied habitat.

The Plan shall include the specific survey and relocation efforts that would occur for construction activities that occur both during the activity period of the special status species (generally March to November) and for periods when the species may be present in the work area but difficult to detect due to weather conditions (generally December through February). Thirty days prior to construction activities in coastal scrub, chaparral, oak woodland, riparian habitats, or other areas supporting these species qualified biologists shall conduct surveys to capture and relocate individual coast horned lizard, silvery legless lizard, coastal western whiptail, rosy boa, San Bernardino ringneck snake, and coast patch-nosed snake in order to avoid or minimize take of these special-status species. The plan shall require a minimum of three (3) surveys conducted during the time of year/day when each species is most likely to be observed. Individuals shall be relocated to nearby undisturbed areas with suitable habitat. If construction is scheduled to occur during the low activity period (generally December through February) the surveys shall be conducted prior to this period if possible and exclusion fencing shall be placed to limit the potential for re-colonization of the site prior to construction. The qualified biologist will be present during ground-disturbing activities immediately adjacent to or within habitat that supports populations of these species. Clearance surveys for special-status reptiles shall be conducted by a qualified biologist prior to the initiation of construction each day.

Results of the surveys and relocation efforts shall be provided to CDFG in the annual mitigation status report. Collection and relocation of animals shall only occur with the proper scientific collection and handling permits.

SCV Water Implementation Action for MV 4.3-7: See SCV Water implementation action for MV 4.3-5, above.

MV 4.3-15: Within 30 days of ground-disturbing activities associated with construction or grading that would occur during the nesting/breeding season of native bird species potentially nesting on the site (typically March through August in the project region, or as determined by a qualified biologist), the applicant shall have weekly surveys conducted by a qualified biologist to determine if active nests of bird species protected by the Migratory Bird Treaty Act and/or the California Fish and Game Code are present in the disturbance zone or within 300 feet (500 feet for raptors) of the disturbance zone. The surveys shall continue on a weekly basis, with the last survey being conducted no more than 7 days prior to initiation of disturbance work. If ground-disturbing activities are delayed, then additional pre-disturbance surveys shall be conducted such that no more than 7 days will have elapsed between the survey and ground-disturbing activities.

If active nests are found, clearing and construction within 300 feet of the nest (500 feet for raptors) shall be postponed or halted, at the discretion of the biologist in consultation with CDFG, until the nest is vacated and juveniles have fledged, as determined by the biologist, and there is no evidence of a second attempt at nesting. In the event that golden eagles establish an active nest in the River Corridor SMA/SEA 23, the buffers will be established in consultation with CDFG. Potential golden eagle nesting will be reported to CDFG within 24 hours. Limits of construction to avoid an active nest shall be established in the field with flagging, fencing, or other appropriate barriers, and construction personnel shall be instructed on the sensitivity of nest areas. The biologist shall serve as a construction monitor during those periods when construction activities will occur near active nest areas to ensure that no inadvertent impacts to these nests occur. Results of the surveys shall be provided to CDFG in the annual mitigation status report.

For listed riparian songbirds (least Bell's vireo, southwestern willow flycatcher, yellow-billed cuckoo) USFWS protocol surveys shall be conducted. If active nests are found, clearing and construction within 300 feet of the nest shall be postponed or halted, at the discretion of the biologist in consultation with CDFG and USFWS, until the nest is vacated and juveniles have fledged, as determined by the biologist, and there is no evidence of a second attempt at nesting. If no active nests are observed, construction may proceed. If active nests are found, work may proceed provided that construction activity is located at least 300 feet from active nests (or as authorized through the context of the Biological Opinion and 2081b Incidental Take Permit). This buffer may be adjusted provided noise levels do not exceed 60 dB(A) hourly Leq at the edge of the nest site as determined by a qualified biologist in coordination with a qualified acoustician.

If the noise meets or exceeds the 60 dB(A) Leq threshold, or if the biologist determines that the construction activities are disturbing nesting activities, the biologist shall have the authority to halt the construction and shall devise methods to reduce the noise and/or disturbance in the vicinity. This may include methods such as, but not limited to, turning off vehicle engines and other equipment whenever possible to reduce noise, installing a protective noise barrier between the nest site and the construction activities, and working in other areas until the young have fledged. If noise levels still exceed 60 dB(A) Leq hourly at the edge of nesting territories and/or a no construction buffer cannot be maintained, construction shall be deferred in that area until the nestlings have fledged. All active nests shall be monitored on a weekly basis until the nestlings fledge. The qualified biologist shall be responsible for documenting the results of the surveys and the ongoing monitoring and for reporting these results to CDFG and USFWS.

For coastal California gnatcatcher, the applicant shall conduct USFWS protocol surveys in suitable habitat within the project area and all areas within 500 feet of access or construction related disturbance areas. Suitable habitats, according to the protocol, include "coastal sage scrub, alluvial fan, chaparral, or intermixed or adjacent areas of grassland and riparian habitats." A permitted biologist shall perform these surveys according to the USFWS' (1997a) Coastal California Gnatcatcher Presence/Absence Survey Guidelines. If a territory or nest is confirmed, the USFWS and CDFG shall be notified immediately. If present, a 500-foot disturbance-free buffer shall be established and demarcated by fencing or flagging. No project activities may occur in these areas unless otherwise authorized by USFWS and CDFG. Construction activities in suitable gnatcatcher habitat will be monitored by a full-time qualified biologist. The monitoring shall be of a sufficient intensity to ensure that the biologist could detect the presence of a bird in the construction area.

SCV Water Implementation Action for MV 4.3-15: A preconstruction bird survey shall be performed within five days prior to construction to determine if any of the following species are present: Cooper's hawk, white-tailed kite, or least Bell's vireo. If active nests of any of these species are present, a 300-foot buffer shall be established around the nest. A biological monitor shall be on-site during all construction activities if any of these species occur.

MV 4.3-52: Construction plans shall include necessary design features and construction notes to ensure protection of vegetation communities and special-status plant and aquatic wildlife species adjacent to construction. In addition to applicable erosion control plans and performance under SCAQMD Rule 403d dust control (SCAQMD 2005), the project stormwater pollution prevention plan (SWPPP) shall include the following minimum BMPs. Together, the implementation of these requirements shall ensure protection of adjacent habitats and wildlife species during construction. At a minimum, the following measures/restrictions shall be incorporated into the SWPPP, and noted on construction plans where appropriate to avoid impacting special-status species during construction:

- Avoid planting or seeding invasive species in development areas within 200 feet of native vegetation communities.
- The operator shall install and use fully covered trash receptacles to contain all food, food scraps, food wrappers, beverage containers, and other miscellaneous trash. Trash will be regularly picked up in construction areas.
- The operator shall not permit pets on or adjacent to the construction site.

SCV Water Implementation Action for MV 4.3-52: SCV Water shall prepare bid documents that specify that the SWPPP prepared for the proposed Project shall incorporate the following measures/restrictions to avoid impacts to vegetation communities and potential special-status plants and wildlife species adjacent to construction:

- Avoid planting or seeding invasive species in development areas within 200 feet of native vegetation communities.
- The operator shall install and use fully covered trash receptacles to contain all food, food scraps, food wrappers, beverage containers, and other miscellaneous trash. Trash will be regularly picked up in construction areas.
- The operator shall not permit pets on or adjacent to the construction site

New Mitigation Measures:

None needed.

5.5 Cultural Resources

Would the Project:	<i>New Potentially Significant Impact</i>	<i>New Mitigation Required</i>	<i>No Impact/ No New Impact</i>	<i>Reduced Impact</i>
a) Cause a substantial adverse change in the significance of a historical resource pursuant to §15064.5?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Cause a substantial adverse change in the significance of a unique archaeological resource pursuant to §15064.5?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Disturb any human remains, including those interred outside of dedicated cemeteries?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Discussion***a) Cause a substantial adverse change in the significance of a historical resource pursuant to §15064.5?****No New Impact.*Backcountry Reservoir

The Backcountry Reservoir site was evaluated for cultural/historical resources as part of the Mission Village EIR. The site has since been graded as part of the Mission Village development and included cultural resources monitoring as part of required mitigation. Although construction of the Backcountry Reservoir would require excavation of 30 feet below pad elevation (from 1,430-foot pad elevation to 1,400-foot floor elevation), excavation would occur entirely on artificial fill that was placed on-site during grading. All soil to be excavated for development of the partially buried reservoir would be previously disturbed imported fill. Given that there is no native soil at the site, it is expected that no cultural resources would be encountered during excavation, and therefore, no cultural resource impacts would be expected.

Backcountry Pump Station

An assessment of cultural resources was conducted for the Backcountry Pump Station site (SWCA, 2022b). The report is provided in **Appendix D**. The assessment included a literature review, California Historical Resources Information System (CHRIS) records search, Sacred Lands File search, and pedestrian survey of the Backcountry Pump Station site conducted on August 27, 2021.

Results of the records search indicated that 61 previous cultural resource investigations have been conducted within a 0.5-mile radius of the Backcountry Pump Station area. Of these studies, six investigations included a portion of the current Project area. Twelve previously recorded cultural resources are located within 0.5 mile of the Backcountry Pump Station site. Of these resources, none were mapped within the Backcountry Pump Station site itself.

No cultural resources were identified within the Backcountry Pump Station site, the surface of which is mostly paved or otherwise obscured. The Backcountry Pump Station site, and footprint of the distribution pipelines have been subject to past disturbance, including extensive grading/leveling and paving, such that any surface manifestations of archaeological resources that might once have been present have undoubtedly been destroyed. The likelihood of encountering cultural resources during Project construction is low.

However, unanticipated discovery of buried cultural resources remains a possibility. The Mission Village EIR included mitigation measures to reduce the potential impact in the event of unanticipated discovery of cultural resources discovery (SP 4.3-3 and MV 4.20-1). With these mitigation measures the potential for impacts to historical resources would be less than significant.

Mission Village EIR Findings

The Mission Village EIR concluded that based on the findings of cultural resource surveys, no significant cultural resource impacts would result from site development with implementation of mitigation measures

Conclusion: The proposed Project would not create any new cultural resource impacts or create a substantial increase in the severity of impacts identified in the Mission Village EIR, and no additional mitigation measures would be necessary.

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

No New Impact. For the reasons explained in the analysis of Cultural Resources impact a) above, it is expected that no unique archaeological resources would be encountered during excavation. In the event of unanticipated discovery, implementation of SP 4.3-3 and MV 4.20-1 would reduce impacts to less than significant. Therefore, no new impacts on unique archaeological resources are expected.

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

No New Impact. For the reasons explained in the analysis of Cultural Resources impact a) above, it is expected that no human remains would be encountered during excavation. In the event of unanticipated discovery, implementation of SP 4.3-3 and MV 4.20-1 would reduce impacts to less than significant. Therefore, no new impacts on human remains are expected.

Applicable Mitigation Measures from Mission Village EIR and Newhall Ranch Program EIR:

MV 4.20-1: Although no other significant cultural resources were observed or recorded, all grading activities and surface modifications must be confined to only those areas of absolute necessity to reduce any form of impact on unrecorded (buried) cultural resources that may exist within the confines of the project area. In the event that previously undetected archaeological, paleontological, and/or historical resources are found during construction, activity in the immediate area of the find shall stop and a qualified archaeologist or paleontologist, as applicable, shall be contacted to evaluate the resource(s). If the find is determined to be a historical or unique archaeological resource, as defined by CEQA, contingency funding and a time allotment sufficient to allow for implementation of avoidance measures or appropriate mitigation shall be provided. Construction work may continue on other parts of the construction site while historical/archaeological mitigation takes place, pursuant to State CEQA Guidelines Section 15064.5(f) and Public Resources Code Section 21083.2(i).

SP 4.3-3: In the unlikely event that additional artifacts are found during grading within the development area or future roadway extensions, an archaeologist will be notified to stabilize, recover, and evaluate such finds.

SCV Water Implementation Action for MV 4.20-1 and SP 4.3-3: In the event that cultural resources are exposed during construction, work in the immediate vicinity of the find must stop until a qualified archaeologist can evaluate the significance of the find. Construction activities may continue in other areas. If the discovery is evaluated as significant under CEQA, avoidance, testing or data recovery and/or other appropriate measures shall be provided.

New Mitigation Measures:

None needed.

5.6 Energy

Would the Project:

	<i>New Potentially Significant Impact</i>	<i>New Mitigation Required</i>	<i>No Impact/ No New Impact</i>	<i>Reduced Impact</i>
a) Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Discussion

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

No New Impact.

Backcountry Reservoir

The Backcountry Reservoir would require consumption of fossil fuel for operation of diesel-powered vehicles and equipment as well as worker vehicles. No, unusual or excessive construction practices would be expected that would result in wasteful, inefficient, or unnecessary consumption of energy compared to similar construction projects. Based on the preliminary reservoir sizing, a new 200A, 240/120V, single phase electrical metered service would be required from Southern California Edison to deliver electrical power to meet expected load demand. Project design specifications rely on the use of high-efficiency equipment for operation of the reservoir (SCADA, lighting, etc.) and would meet California Building Energy Efficiency Standards (Title 24). Overall operation of the reservoir would expend limited energy resources (approximately 3,650 kWh annually) plus limited fossil fuel for infrequent maintenance worker vehicle trips. Impacts would be less than significant.

Backcountry Pump Station

Like the Backcountry Reservoir, the Backcountry Pump Station would require use of fossil fuel for operation of construction equipment and worker vehicles. Construction of the Backcountry Pump Station would use typical construction practices and would not be anticipated to create wasteful, inefficient, or unnecessary consumption of energy resources. A new electrical metered service from SCE would be required to deliver power for operation of the Backcountry Pump Station. The Backcountry Pump Station would be designed to use efficient lighting and SCADA systems to reduce energy use. The Backcountry Pump Station would also be constructed to meet California Building Energy Efficiency Standards (Title 24). Operation of the Backcountry Pump Station would consume electricity for pump operation (approximately 900,000 kWh annually), as well as limited fossil fuel for worker vehicle trips to conduct operation and maintenance work. In the event of a power outage, the Backcountry Pump Station would rely on a diesel-powered backup generator. Operation of the Backcountry Pump Station, as well as the V-9

Turnout and distribution pipelines, would not expend significant energy resources, and impacts would be less than significant.

Mission Village EIR Findings

The Mission Village EIR concluded that impacts to electricity resources would be less than significant with incorporation of measures to ensure energy efficiency throughout the development, including relying on renewable energy sources to meet a portion of the project energy demands, and implementation of “green” project design features.

Conclusion: The Backcountry Reservoir would not create an increase in impacts associated with inefficient energy consumption or create a substantial increase in the severity of such impacts identified in the Mission Village EIR for a water tank located on the same site. The Backcountry Pump Station would have a less than significant impact in terms of energy consumption. The proposed Project would have no new impact, and no additional mitigation measures would be necessary.

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

No New Impact.

Backcountry Reservoir

The Backcountry Reservoir would be constructed to maximize energy efficiency, which would be in compliance with the energy efficiency strategies outlined in the Los Angeles County Community Climate Action Plan (CCAP) 2020. The reservoir would also be in compliance with the state’s 2017 Climate Change Scoping Plan which focuses on reducing energy demand and emissions that result from mobile sources and requires compliance with the CARB In-Use Off-Road Diesel-Fueled Fleets Regulations, as mentioned previously in Section 2.4, Construction Management Practices. No impacts would be expected.

Backcountry Pump Station

The Backcountry Pump Station would also be constructed to maximize energy efficiency, consistent with the greenhouse gas reduction measures and strategies identified in the City of Santa Clarita Climate Action Plan (City of Santa Clarita, 2012). Like the Backcountry Reservoir, the Backcountry Pump Station would comply with the 2017 Climate Change Scoping Plan and the CARB In-Use Off-Road Diesel-Fueled Fleets Regulations. The Backcountry Pump Station, V-9 Turnout and distribution pipelines would not conflict with or obstruct plans for renewable energy or energy efficiency, and there would be no impact.

Mission Village EIR Findings

The Mission Village EIR concluded that with implementation of mitigation measures and compliance with regulations for energy efficiency, construction and operation of the Mission Village development would have a less than significant cumulative impact on energy resources, and therefore would not conflict with existing state or local renewable energy or energy efficiency plans.

Conclusion: The proposed Project would not create any new conflicts with local renewable energy plans or increase the severity of any conflicts identified in the Mission Village EIR, and no additional mitigation measures would be necessary.

Applicable Mitigation Measures from Mission Village EIR and Newhall Ranch Program EIR:

None needed.

New Mitigation Measures:

None needed.

5.7 Geology and Soils**Would the Project:**

	<i>New Potentially Significant Impact</i>	<i>New Mitigation Required</i>	<i>No Impact/ No New Impact</i>	<i>Reduced Impact</i>
a) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
ii) Strong seismic ground shaking?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
iii) Seismic-related ground failure, including liquefaction?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
iv) Landslides?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Result in substantial soil erosion or the loss of topsoil?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Discussion

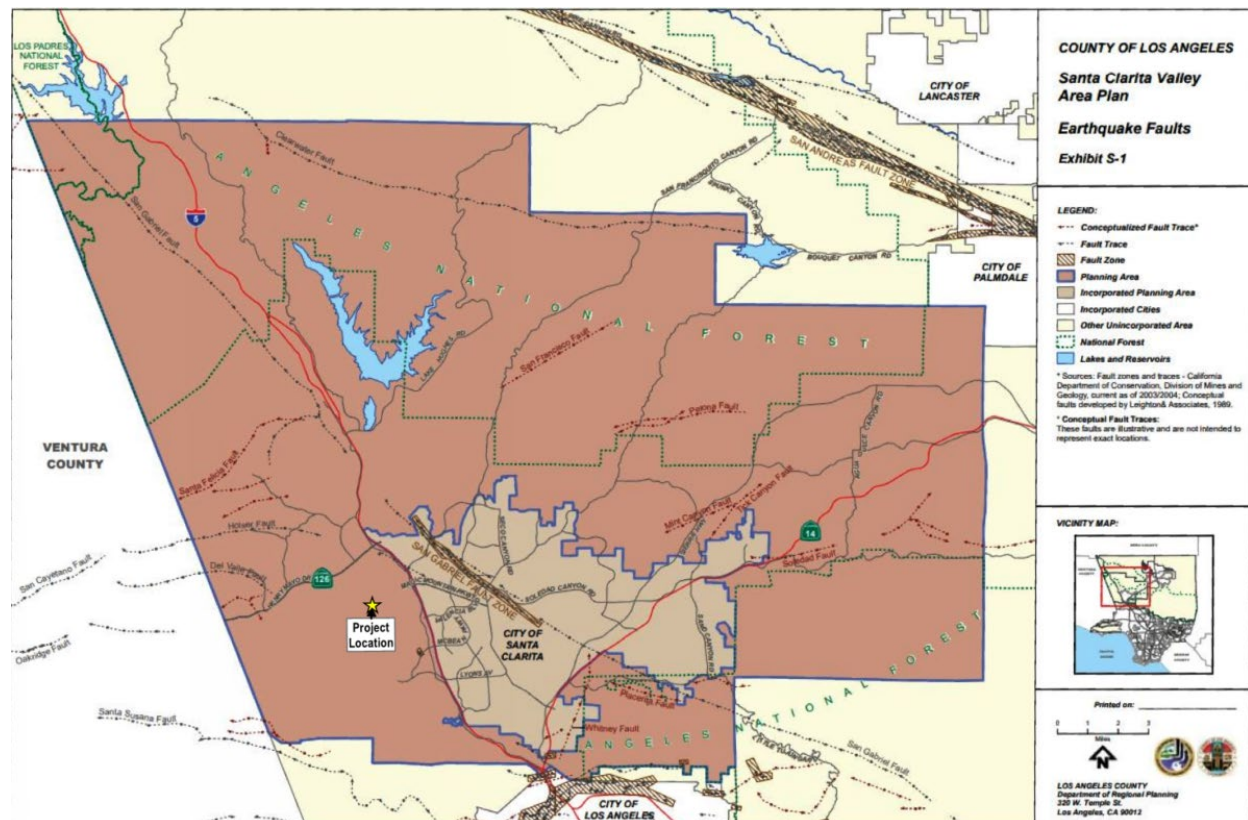
a) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving: (i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42; (ii) Strong seismic ground shaking?; (iii) Seismic-related ground failure, including liquefaction?; (iv) Landslides?

No New Impact.

Backcountry Reservoir

The Backcountry Reservoir site was evaluated as part of the geotechnical analyses in the Mission Village EIR. No active faults, as delineated on Alquist-Priolo Maps, are shown within the boundaries of the Backcountry Reservoir site. Likewise, no active faults are identified near the Backcountry Reservoir site in the Santa Clarita Valley Area Plan (**Figure 5-9**). The site has since been rough graded, filled, and compacted in accordance with the grading plan approved by Los Angeles County. As discussed in the 2018 Magic Mountain Reservoir Preliminary Design Technical Memorandum (Michael Baker International, 2018), a project-specific geotechnical report would be prepared with design recommendations to minimize potential seismic-related impacts including slope stability of the northwest facing cut slope and the reservoir subgrade. With implementation of mitigation measures and adherence to design requirements in a project-specific geotechnical report and County Building Code requirements (i.e., Mitigation Measure MV 4.1-6 from the Mission Village EIR), any seismic impacts would be reduced to less than significant.

Figure 5-9: Santa Clarita Valley Area Plan - Earthquake Faults



Source: Santa Clarita Valley Area Plan (County of Los Angeles, 2012)

Backcountry Pump Station

The Backcountry Pump Station site (including distribution pipeline alignments) is not located within an earthquake fault zone or a landslide zone. The site is located within a liquefaction zone (CDOC, n.d.). As with the Backcountry Reservoir, a project-specific geotechnical report would be prepared which would contain design parameters to minimize the potential for seismic-related impacts (Mitigation Measure MV 4.1-6 from the Mission Village EIR). The design and construction of the Backcountry Pump Station would adhere to these parameters, and seismic impacts would be less than significant.

Mission Village EIR Findings

The Mission Village EIR evaluated geological conditions throughout the Mission Village development area and identified potential geological hazards such as strong seismic ground shaking, surficial failures, liquefaction potential, landslides, and faults. The EIR concluded that impacts would be reduced to less than significant with implementation of fault zone setbacks, standards for construction provided in the County Building Code, and mitigation measures contained in the Newhall Ranch Specific Plan Program EIR and additional project-specific mitigation measures in the Mission Village EIR.

Conclusion: The Backcountry Reservoir would not create new seismic-related impacts or increase the severity of seismic impacts identified in the Mission Village EIR because it would be located on the same site as the tank described in the Mission Village EIR. The Backcountry Pump Station would be designed such that it would not result in new or more severe seismic impacts. No new mitigation measures would be necessary.

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

No New Impact.

Backcountry Reservoir

The Backcountry Reservoir site was evaluated as part of the geotechnical analysis in the Mission Village EIR. The site has since been graded and native soil has been replaced with artificial fill. Reservoir construction would involve excavation of 55,000 cubic yards of fill material for construction of the partially buried reservoir, approximately 35,000 cubic yards would be hauled off site to an adjacent development within Mission Village, and approximately 20,000 cubic yards would be used on-site as backfill. No substantial loss of topsoil would be expected as soil would be reused as backfill, and all work would be conducted in accordance with erosion and sedimentation control measures required by the Los Angeles County Grading Ordinance, as applicable, and the proposed Project's SWPPP.

Backcountry Pump Station

Construction of the Backcountry Pump Station would involve excavation on the Backcountry Pump Station site, with a net export of approximately 4,000 cubic yards of material (approximately 1,000 cubic yards of material from the Backcountry Pump Station site and approximately 3,000 cubic yards from excavation for the distribution pipelines). The remaining excavated material would be used as backfill and would remain on site. Given the volume of export expected for the Mission Village development, the anticipated 4,000 cubic yards of export associated with the Backcountry Pump Station would be less than significant and would not represent a new or more substantial impact in terms of topsoil loss. Work at the Backcountry Pump Station site would be conducted in accordance with the measures noted above (Los Angeles County Grading Ordinance, as applicable, and the proposed Project's SWPPP), therefore erosion impacts would be less than significant.

Mission Village EIR Findings

The Mission Village EIR states that site grading for build-out of Mission Village would require removal and re-compaction of approximately 29.5 million cubic yards of soil in a balanced cut and fill operation. Implementation of surface drainage control recommendations, provisions for erosion control in the Los Angeles County Grading Ordinance and implementation of recommended mitigation measures would reduce impacts to less than significant.

Conclusion: The proposed Project would not create new soil erosion-related impacts or increased severity of impacts identified in the Mission Village EIR, and no additional mitigation measures would be necessary.

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?

No New Impact.

Backcountry Reservoir

As discussed in Geology and Soils impact a), the Backcountry Reservoir site has been rough graded, filled, and compacted in accordance with the grading plan approved by Los Angeles County. The Mission Village EIR evaluated geological conditions throughout the Mission Village development area and identified potential geological hazards such as landslides, lateral spreading, subsidence, liquefaction, and collapse potential.

Backcountry Pump Station

As discussed in Geology and Soils Impact a), the Backcountry Pump Station site is located within an area that has been identified as a liquefaction zone. The Backcountry Pump Station and distribution pipelines would be constructed in accordance with applicable building codes applicable in Los Angeles County and the City of Santa Clarita (i.e., California Building Code and City of Santa Clarita Amendments). Further, the Backcountry Pump Station would be designed and constructed in accordance with the project-specific geotechnical report. Due to these design features, construction and operation of the Backcountry Pump Station and distribution pipelines would not be anticipated to cause liquefaction of soils on-site or off-site. Impacts from the Backcountry Pump Station would be less than significant.

Mission Village EIR Findings

The Mission Village EIR concluded that impacts would be reduced to less than significant with implementation of fault zone setbacks, standards for construction provided in the County Building Code, and mitigation measures contained in the Newhall Ranch Specific Plan Program EIR and additional project-specific mitigation measures in the Mission Village EIR. Therefore, impacts of the Project would be reduced to less than significant with implementation of mitigation measures.

Conclusion: The proposed Project would not create new on- or off-site impacts related to landslides, lateral spreading, subsidence, liquefaction or collapse, or increased severity of any such impacts identified in the Mission Village EIR, and no additional mitigation measures would be necessary.

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?

No New Impact.

Backcountry Reservoir

As discussed in Geology and Soils impact a), the Backcountry Reservoir site is located entirely on artificial fill and has been rough graded and compacted in accordance with the grading plan approved by Los Angeles County. Neither construction nor operation of the reservoir would disturb native soil. Additional grading and excavation will be required for construction of the partially buried Backcountry Reservoir which would be done in accordance with the Uniform Building Code and recommendation of a geotechnical engineering report. No impacts related to expansive soils would be expected.

Backcountry Pump Station

Certain bedrock and soils exist within the City of Santa Clarita that have sufficient clay content to exhibit expansive properties, especially those near river channels (City of Santa Clarita, 2010). Therefore, the Backcountry Pump Station site and footprint of the distribution pipelines has the potential to be located on expansive soil. The Backcountry Pump Station would be designed and constructed in accordance with site-specific geotechnical recommendations. Additionally, the Mission Village EIR included mitigation measures to reduce the potential impact of expansive soils to a less-than-significant level (MV 4.1-3, MV 4.1-48, and MV 4.1-66). With these mitigation measures, the potential for structural damage to Backcountry Pump Station components and distribution pipelines as a result of expansive soils would be minimal. The Backcountry Pump Station and distribution pipelines would not create substantial direct or indirect risks to life or property, and the impact would be less than significant.

Mission Village EIR Findings

The Mission Village EIR identified potential expansive soil impacts associated with changes from cut and fill of the project site. The EIR concluded that impacts would be reduced to less than significant with implementation of measure in the County Building Code, and mitigation measures contained in the Newhall Ranch Specific Plan Program EIR and additional project-specific mitigation measures in the Mission Village EIR.

Conclusion: The proposed Project would not create new expansive-soil related impacts or increased severity of impacts identified in the Mission Village EIR, and no additional mitigation measures would be necessary.

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

No Impact. The proposed Project does not involve septic tanks or alternative wastewater disposal systems. Therefore, no impact would occur, consistent with the conclusion in the Mission Village EIR.

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

No New Impact.

Backcountry Reservoir

The Backcountry Reservoir site was evaluated for paleontological resources as part of the Mission Village EIR. Although the Backcountry Reservoir would require excavation down to approximately 30 feet from the pad to the reservoir floor elevation, the reservoir site is rough graded and entirely on artificial fill. No native soil would be disturbed as a result of reservoir construction. Therefore, no impacts on a unique paleontological resource or unique geologic features would be expected.

Backcountry Pump Station

A Paleontological Resources Assessment was prepared to evaluate the potential for paleontological resources to occur at the Backcountry Pump Station site and footprint of the distribution pipelines (SWCA, 2022c). This report is included as **Appendix E**. The assessment included a review of geologic maps, scientific literature, and confidential fossil locality records from the Natural History Museum of Los Angeles County (NHMLA), which were used to evaluate the likelihood of paleontological resources within the pump station site. The pump station area is mapped at the surface as Holocene to late Pleistocene younger alluvium. Late Pleistocene terrace deposits and Pleistocene Saugus Formation likely underlie the younger alluvium at depth based on their proximity to the pump station site. The NHMLA records search indicated the museum has several localities in undifferentiated Pleistocene-aged sediments and in Pleistocene Saugus Formation within the vicinity of the project site; however, there are no museum records of fossil localities within the pump station site. Analysis of these data allowed the assignment of paleontological sensitivity using the Society of Vertebrate Paleontology paleontological potential classes, such that younger alluvium has a Low to High paleontological sensitivity, increasing with depth (the transition from Low to High is unknown but may be as shallow as 10 feet below ground surface); the underlying terrace deposits and Saugus Formation both have a High paleontological sensitivity.

The maximum depth of excavation for the Backcountry Pump Station would be approximately 15 feet below the surface. Excavation for the distribution pipelines would be a maximum depth of 6 feet below ground surface. Excavation below depths of 10 feet would impact sediments of High paleontological sensitivity. Because there is high potential for the subsurficial geologic units to preserve fossils, the ground-disturbing activities for the Backcountry Pump Station could result in significant impacts on paleontological resources. Mitigation previously adopted as part of the Mission Village EIR and Newhall Ranch Specific Plan EIR would reduce impacts to a less than significant level. These measures include MV 4.20-1 (requiring that a qualified paleontologist be contacted to evaluate any resources discovered) and SP 4.3-4 (requiring monitoring in areas of High paleontological sensitivity, stopping work upon a discovery, and salvaging any resources discovered). With adherence to these measures, the impacts of the Backcountry Pump Station construction on paleontological resources would be less than significant.

Mission Village EIR Findings

The Mission Village EIR identifies that the bedrock formations in the project area have the potential for significant paleontological resources that could be uncovered during earthmoving activities. However, with implementation of mitigation measures, potential significant impacts would be reduced to less than significant.

Conclusion: The proposed Project would not result in new paleontological resource impacts or increased severity of such impacts identified in the Mission Village EIR, and no additional mitigation measures would be necessary.

Applicable Mitigation Measures from Mission Village EIR and Newhall Ranch Program EIR:

MV 4.1-6: The project shall be designed in accordance with all applicable building codes and standards utilizing the appropriate geotechnical parameters as presented in the “Seismicity” section of the R.T. Frankian & Associates report entitled Response to County of Los Angeles Review Sheets and Geotechnical Plan Review, Revised Vesting Tentative Tract Map No. 6110,5 (April 29, 2010)) to reduce seismic risk to an acceptable level as defined by CGS in Chapter 2 of SP 117a (CGS, 2008).

SCV Water Implementation Action for MV 4.1-6: SCV Water shall design the proposed Project in accordance with the recommendations of a project-specific geotechnical report to reduce seismic-related risks.

MV 4.1-3: Over-excavation of clay-rich bedding planes of the Saugus Formation or Pico Formation and subsequent placement of a certified fill cap shall be conducted to mitigate potential hazards from expansive material, and to reduce potential hazards from potential secondary seismogenic movement along bedding planes.

SCV Water Implementation Action for MV 4.1-3: SCV Water shall design the proposed Project in accordance with the recommendations of a project-specific geotechnical report to reduce risks related to expansive soils.

MV 4.1-48: A minimum 5- to 8-foot-thick over excavation shall be performed on all cut lots, and transitional lots (transitions between bedrock, fill, terrace deposits and alluvium) and a minimum 3 foot-thick over excavation on streets. This over excavation will provide a uniform base for structural support of buildings and traffic loads. If on a cut/fill transition lot the maximum depth of fill exceeds 15 feet, then the thickness of the fill cap shall be one third of the deepest fill thickness below any proposed structure. If excavation of the native soils (i.e., bedrock) exposes high expansive materials, then the lot over excavation shall be deepened to 8 feet.

SCV Water Implementation Action for MV 4.1-48: See SCV Water implementation action for MV 4.1-3, above.

MV 4.1-66: Additional testing for expansive soils shall be performed at the grading plan stage and during finish grading so that appropriate foundation design recommendations for expansive soils, if applicable, can be made.

SCV Water Implementation Action for MV 4.1-66: See SCV Water implementation action for MV 4.1-3, above.

MV 4.20-1: Although no other significant cultural resources were observed or recorded, all grading activities and surface modifications must be confined to only those areas of absolute necessity to reduce any form of impact on unrecorded (buried) cultural resources that may exist within the confines of the project area. In the event that previously undetected archaeological, paleontological, and/or historical resources are found during construction, activity in the immediate area of the find shall stop and a qualified archaeologist or paleontologist, as applicable, shall be contacted to evaluate the resource(s). If the find is determined to be a historical or unique archaeological resource, as defined by CEQA, contingency funding and a time allotment sufficient to allow for implementation of avoidance measures or appropriate mitigation shall be provided. Construction work may continue on other parts of the construction site while historical/archaeological mitigation takes place, pursuant to State CEQA Guidelines Section 15064.5(f) and Public Resources Code Section 21083.2(i).

SCV Water Implementation Action for MV 4.20-1: See SCV Water implementation action for SP 4.3-4, below.

SP 4.3-4: As part of an inspection testing program, a Los Angeles County Natural History Museum-approved inspector is to be on site to salvage scientifically significant fossil remains. The duration of these inspections depends on the potential for the discovery of fossils, the rate of excavation, and the abundance of fossils. Geological formations (like the Saugus Formation) with a high potential will initially require full time monitoring during grading activities. Geologic formations (like the Quaternary terrace deposits) with

a moderate potential will initially require half-time monitoring. If fossil production is lower than expected, the duration of monitoring efforts should be reduced. Because of known presence of microvertebrates in the Saugus Formation, samples of at least 2,000 pounds of rock shall be taken from likely horizons, including localities 13, 13A, 14, and 23. These samples can be stockpiled to allow processing later to avoid delays in grading activities. The frequency of these samples will be determined based on field conditions.

Should the excavations yield significant paleontological resources, excavation is to be stopped or redirected until the extent of the find is established and the resources are salvaged. Because of the long duration of the Specific Plan, a reassessment of the paleontological potential of each rock unit will be used to develop mitigation plans for subsequent subdivisions. The report shall include an itemized inventory of the fossils, pertinent geologic and stratigraphic data, field notes of the collectors and include recommendations for future monitoring efforts in those rock units. Prior to grading, an agreement shall be reached with a suitable public, non-profit scientific repository, such as the Los Angeles County Museum of Natural History or similar institution, regarding acceptance of fossil collections.

SCV Water Implementation Action for SP 4.3-4: SCV Water shall implement the following procedures during construction of the Backcountry Pump Station:

A Project Paleontologist meeting Society of Vertebrate Paleontology (SVP) standards shall prepare a Paleontological Resources Monitoring and Mitigation Plan (PRMMP). This plan shall address specifics of monitoring and mitigation and comply with the recommendations of the SVP (2010). The Project Paleontologist shall also prepare a report of the findings of the monitoring plan after construction is completed.

The Project Paleontologist shall develop a Worker's Environmental Awareness Program (WEAP) to train the construction crew on the legal requirements for preserving fossil resources, as well as procedures to follow in the event of a fossil discovery. This training program shall be given to the crew before ground-disturbing work commences and will include handouts to be given to new workers as needed.

All ground disturbances in the proposed Project area that occur in previously undisturbed sediments at depths greater than 10 feet below ground surface, which have the potential to impact older sediments of younger alluvium, terrace deposits, and/or Saugus Formation that have High paleontological sensitivity, will require monitoring. The uppermost 10 feet of younger alluvium have Low paleontological sensitivity; therefore, it is recommended that monitoring begin at approximately 10 feet below ground surface.

Monitoring shall be conducted by a paleontological monitor who meets the standards of the SVP (2010). Monitoring will be conducted in accordance with the PRMMP and under the supervision of the Project Paleontologist. The Project Paleontologist may periodically inspect construction activities to adjust the level of monitoring in response to subsurface conditions. Full-time monitoring can be reduced to part-time inspections or ceased entirely if determined adequate by the Project Paleontologist. Paleontological monitoring will include inspection of exposed sedimentary units during active excavations within sensitive geologic sediments. The monitor shall have authority to temporarily divert activity away from exposed fossils to evaluate the significance of the find and, should the fossils be determined to be significant, professionally and efficiently recover the fossil specimens and collect associated data. Paleontological monitors shall record pertinent geologic data and collect appropriate sediment samples from any fossil localities.

In the event of a fossil discovery, whether by the paleontological monitor or a member of the construction crew, all work shall cease within a 50-foot radius of the find while the Project

Paleontologist assesses the significance of the fossil and documents its discovery. Should the fossil be determined significant, it shall be salvaged following the procedures and guidelines of the SVP (1995, 2010). Recovered fossils shall be prepared to the point of curation, identified by qualified experts, listed in a database to facilitate analysis, and deposited in a designated paleontological curation facility. A repository shall be identified, and a curatorial arrangement shall be signed prior to collection of the fossils.

New Mitigation Measures:

None needed.

5.8 Greenhouse Gas Emissions

Would the Project:	<i>New Potentially Significant Impact</i>	<i>New Mitigation Required</i>	<i>No Impact/ No New Impact</i>	<i>Reduced Impact</i>
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Discussion

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

No New Impact.

Backcountry Reservoir and Backcountry Pump Station

Construction of the Backcountry Reservoir and Pump Station (including V-9 Turnout and distribution pipelines) would generate greenhouse gas emissions (GHGs) associated with fossil fuel use for construction vehicles and equipment. Operation of the reservoir would generate GHGs from the estimated 3,650 kWh of annual electrical use, and operation of the pump station would generate GHGs from the estimated 900,000 kWh of annual electrical use. Both the reservoir and pump station would require minor amounts of fossil fuel use for maintenance worker vehicle trips. Total GHGs were estimated for construction and operation of the Backcountry Reservoir and Pump Station using CalEEMod version 2022.1. Construction emissions were then amortized over 30 years, per SCAQMD guidance for GHG analysis (See Appendix A). GHG emissions from construction and operation of the proposed Project are estimated to be 163 metric tons of carbon dioxide equivalent (MT CO₂e) per year over 30 years which is a negligible contribution to the county and state’s overall GHG emissions. Additionally, these GHG emissions are below various local and state agency thresholds of 3,000 MTCO₂e, and below the California Air Pollution Control Officers Association threshold of 900 MT CO₂e for determining the need for additional analysis and mitigation for GHG-related impacts of a project under CEQA. GHG impacts of the proposed Project would be less than significant.

Mission Village EIR Findings

The 2016 Recirculated Portions of the Mission Village EIR concluded that without mitigation, the Mission Village development would increase GHG emissions and result in a potentially significant impact to global climate change. However, with implementation of recommended mitigation measures, the development would cause no net increase in GHG emissions and would not have a significant impact on global climate change.

Conclusion: The proposed Project would not result in new GHG emissions impacts or increased severity of such impacts identified in the Mission Village EIR and Recirculated Portions of the Mission Village EIR, and no additional mitigation measures would be necessary.

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

No New Impact.

Backcountry Reservoir and Pump Station

The Backcountry Reservoir and Pump Station Project would be constructed to maximize energy efficiency and comply with the CARB In-Use Off-Road Diesel-Fueled Fleets Regulations, which would help reduce emissions of GHGs. The proposed Project would be in compliance with the energy efficiency strategies outlined in the Los Angeles County CCAP 2020 and would also be in compliance with the state's 2017 Climate Change Scoping Plan which focuses on reducing energy demand and emissions that result from mobile sources. The Los Angeles County CCAP has set a target to reduce GHG emissions from community activities in the unincorporated areas of Los Angeles County by at least 11 below 2010 levels by 2020 (County of Los Angeles, 2015b). The CCAP is composed of State and local actions to reduce GHG emissions within the unincorporated areas of Los Angeles County. Two of the 26 local actions included in the CCAP address construction emissions and are, therefore, relevant to the proposed Project: Land Use and Transportation (LUT)-9 Idling Reduction Goal encourages idling limits of 3 minutes for heavy-duty construction equipment, as feasible within manufacturer's specifications. LUT-12 Electrify Construction and Landscaping Equipment encourages utilizing electric equipment wherever feasible for construction projects (County of Los Angeles, 2015b). Construction of the Backcountry Reservoir and Pump Station, including the distribution pipelines would not conflict with the actions or goals identified in the Los Angeles County CCAP which incorporates construction practices and mitigation measures that would reduce emissions. One of the main goals of the Los Angeles County CCAP is to reduce GHG emissions from passenger vehicles; however, passenger vehicle trips associated with operation of the proposed reservoir and pump station would be minimal. No conflicts would be expected with applicable state and local plans and policies for reducing GHGs. GHG emission impacts would not be materially different from the impact of constructing the aboveground tank as described in the Mission Village EIR and would be less than significant with mitigation.

Mission Village EIR Findings

The 2016 Recirculated Portions of the Mission Village EIR (which replaced the Global Climate Change section in the 2011 Mission Village EIR), found that with implementation of the recommended mitigation measures, the project's achievement of a net zero emissions level ensures that the project would not conflict with statewide targets for the reduction of GHG emissions, Los Angeles County CCAP 2020 and the SCAG Sustainable Communities Strategy plans.

Conclusion: The Backcountry Reservoir and Pump Station Project would not result in new GHG emissions impacts or increased severity of such impacts identified in the Mission Village EIR and Recirculated Portions of the Mission Village EIR, and no additional mitigation measures would be necessary.

Applicable Mitigation Measures from Mission Village EIR and Newhall Ranch Program EIR:

See **SP-4.10-7** and **SCV Water Implementation Action for SP 4.10-7** under Section 5.3, Air Quality.

New Mitigation Measures:

None needed.

5.9 Hazards and Hazardous Materials

Would the Project:	<i>New Potentially Significant Impact</i>	<i>New Mitigation Required</i>	<i>No Impact/ No New Impact</i>	<i>Reduced Impact</i>
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

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

No New Impact.

Backcountry Reservoir

The Backcountry Reservoir would require transport and use of limited quantities of hazardous materials during construction, such as gasoline, diesel fuel, hydraulic fluids, paint, adhesives, etc., but would be transported and used on site in accordance with applicable state and local transportation health and safety standards. Operation and maintenance of the reservoir requires limited transport and no storage or disposal of hazardous materials on-site. With implementation of construction best management practices, (specified in Section 2.4, Construction Management Practices) that require preparation of a Hazardous Materials Management and Spill Control Plan to manage hazardous materials, wastes and accidental spills during construction, impacts would be less than significant, which would be the same impact for the tank described in the Mission Village EIR.

Backcountry Pump Station

Like the Backcountry Reservoir, the Backcountry Pump Station would include transport and use of limited quantities of hazardous materials during construction; transport and use of these materials would comply with applicable health and safety standards. Operation and maintenance of the pump station requires storage of diesel fuel to power the backup generator for the Backcountry Pump Station. The fuel tanks would be double-walled, equipped with spill boxes, and installed within containment walls. No disposal of hazardous materials would occur on site. As discussed above, a Hazardous Materials Management and Spill Control Plan would be prepared and implemented. With this plan in place, impacts from the Backcountry Pump Station would be less than significant.

Mission Village EIR Findings

The Mission Village EIR found that hazards and hazardous materials that could be present on site or in soils could be remediated to less than significant levels in accordance with all applicable regulations, and that the transportation, use and disposal of hazardous materials during construction and operation would be in accordance with applicable regulations. With implementation of mitigation measures, impacts were found to be less than significant.

Conclusion: The proposed Project would not result in new hazards and hazardous materials impacts or increase the severity of impacts identified the Mission Village EIR, and no additional mitigation measures would be necessary because it would be the same impact for the tank described in the Mission Village EIR.

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?

No New Impact.

Backcountry Reservoir

The Backcountry Reservoir site was previously evaluated as part of the Mission Village EIR environmental safety analysis for identification of environmental hazards (e.g., soil contamination) that could be present anywhere on the development site from past land use activities such as agriculture and oil drilling. Since

then, the Backcountry Reservoir site has been graded, excavated, and backfilled with artificial fill. No hazardous soil conditions are expected to exist at the site that could be released to the environment. Operation of the reservoir requires no hazardous materials to be stored on site. Therefore, no hazardous materials release to the environment from upset or accidental conditions would be expected.

Backcountry Pump Station

Operation of the Backcountry Pump Station would require storage of diesel fuel on site to power the Backcountry Pump Station in the event of a power loss. Fuel would be stored within double-walled tanks, equipped with spill boxes and installed within containment walls. In the event of a spill or accident, fuel would be contained within the built-in tank spill box and containment walls. Therefore, no hazardous materials release to the environment from upset or accidental conditions would be expected.

Mission Village EIR Findings

The Mission Village EIR found that hazards and hazardous materials that could be present on site or in soils from past land uses could be remediated to less than significant levels in accordance with all applicable regulations and with implementation of mitigation measures. Impacts were found to be less than significant.

Conclusion: The proposed Project would not result in new hazards and hazardous materials impacts or increase the severity of such impacts identified in the Mission Village EIR, and no additional mitigation measures would be necessary.

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

No Impact. The proposed Project sites are not located within one-quarter mile of an existing or proposed school. No impact would occur, which is the same for the tank site described in the Mission Village EIR.

d) Be located on a site which 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?

No Impact. The proposed Project sites are not included on a list of hazardous material sites by Government Code Section 65962.5 (SWRCB, 2022; DTSC, 2022) and as a result would not create a significant hazard to the public or the environment, which is the same for the tank site described in the Mission Village EIR.

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?

No Impact. The proposed Project sites are not located within an airport land use plan or within two miles of a public airport or public use airport. Therefore, no impact would occur, which is the same for the tank site described in the Mission Village EIR.

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

No New Impact.

Backcountry Reservoir

Construction of the Backcountry Reservoir would require construction vehicles to access the site from Magic Mountain Parkway over an approximate two-year period. Reservoir construction and operation would not require the blocking or closing of traffic lanes during construction or operation, and therefore, impacts to emergency response vehicles during emergencies would be minimal. The reservoir would not be expected to impair implementation of an adopted emergency response or emergency evacuation plan (See also Mitigation Measure SP 4.5-7 in Section 5.17). Impacts would be less than significant.

Backcountry Pump Station

Construction vehicles would access the Backcountry Pump Station site during construction. Work would primarily occur within the pump station site. Distribution pipelines would be constructed in the Magic Mountain Parkway right of way. This work may require temporary lane closures. Potential closures would be conducted in accordance with the traffic control plan as specified in MV 4.5-7 in Section 5.17, and thus, would not substantially impede traffic or interfere with emergency response or evacuation. Therefore, the Backcountry Pump Station and distribution pipelines would not be expected to significantly impair implementation of an adopted emergency response or emergency evacuation plan., and no mitigation measures would be required.

Mission Village EIR Findings

The Mission Village EIR found that with implementation of a construction traffic control plan during construction, and with build-out of two new major arterial access roads with connections to local and state highways, the Mission Village development would not impair implementation or physically interfere with an adopted emergency response or evacuation plan.

Conclusion: The Backcountry Reservoir would not result in new impairments to emergency response plans or increase the severity of impairments as identified in the Mission Village EIR because the Backcountry Reservoir would be located on the same site as the tank described in the Mission Village EIR, and construction and operation of the Backcountry Pump Station would not impede emergency access. The proposed Project would have no new impact. No additional mitigation measures would be necessary.

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

No New Impact.

Backcountry Reservoir

The Backcountry Reservoir site is located in a “Very High Fire Hazard Severity Zone” (VHFHSZ) as determined by Los Angeles County. The proposed Project involves construction and operation of a partially buried potable water storage reservoir to provide emergency supply during a disruption to the regional water supply system. During construction, the contractor would be required to implement mitigation measures (i.e., SP 4.18-3 and MV 4.12-5) to reduce wildfire risk from construction activities (e.g., spark arrestors on equipment, fire watch during welding activities, designating smoking and non-smoking areas, etc.). Long-term operation and maintenance of the reservoir does not include activities that would pose a significant wildlife risk. In fact, a reservoir in the area provides a benefit by storing water that could be used for wildfire suppression if needed. No significant impacts related to risk of wildland fires is expected with implementation of mitigation measures.

Backcountry Pump Station

The Backcountry Pump Station is located near a VHFHSZ (approximately one-half mile away). Typical construction activities for the Backcountry Pump Station would not pose a significant wildfire risk, nevertheless, mitigation measures would be implemented to reduce wildfire risk from construction activities (e.g., spark arrestors on equipment, fire watch during welding activities, designating smoking and non-smoking areas, etc.) would be implemented (SP 4.18-3 and MV 4.12-5). Operation of the Backcountry Pump Station would not include activities that would pose a significant wildfire risk to people or structures. There would be a less-than-significant impact with implementation of mitigation measures.

Mission Village EIR Findings

The Mission Village EIR includes mitigation measures to be implemented during construction to reduce wildfire risk from construction activities. The EIR also includes a requirement to prepare and submit a detailed Wildfire Fuel Modification Plan for the Mission Village development, for approval by Los Angeles County Fire Department, that would reduce the risk and spread of wildfire in the project area. Impacts were determined to be less than significant with implementation of mitigation measures, including implementation of the Wildfire Fuel Modification Plan.

Conclusion: The proposed Project would not result in new wildfire risk impacts or increase the severity of impacts identified in the Mission Village EIR. The Backcountry Reservoir would be located on the same site as the tank described in the Mission Village EIR, and existing mitigation measures would be implemented during construction of the Backcountry Pump Station. No additional mitigation measures would be necessary.

Applicable Mitigation Measures from Mission Village EIR and Newhall Ranch Program EIR:

SP 4.18-3: Each subdivision map and site plan for the proposed Specific Plan shall comply with all applicable building and fire codes and hazard reduction programs for Fire Zones 3 and 4 that are in effect at the time of subdivision map and site plan approval.

MV 4.12-5: This property is located within the area described by the Forester and Fire Warden as a Fire Zone 4, Very High Fire Hazard Severity Zone (VHFHSZ). All applicable fire code and ordinance requirements for construction, access, water mains, fire hydrants, fire flows, brush clearance and fuel modification plans, must be met.

SCV Water Implementation Action for MV 4.18-3 and 4.12-5: SCV Water shall ensure the proposed Project plans adhere to applicable development requirements in the Los Angeles County Fire Code for Very High Fire Hazard Severity Zones. Additionally, SCV Water shall prepare project bid documents that specify fire prevention measures that must be incorporated during construction to minimize the risk of wildfire. Measures shall include, but not be limited to:

- Staging areas, welding areas, or areas slated for construction shall be cleared of dried vegetation or other materials that could ignite.
- Construction equipment that includes a spark arrestor shall be maintained in good working order. In addition, construction crews shall have a spotter during welding activities to look out for potentially dangerous situations, such as accidental sparks.
- Other construction equipment shall be kept in good working order and used only within cleared construction zones.

- Contractors shall require vehicles and crews working at the project site to have access to functional fire extinguishers.
- Areas shall be designated smoking and non-smoking areas; and
- Water shall be available on site as needed, pursuant to the County Fire Department

New Mitigation Measures:

None needed.

5.10 Hydrology and Water Quality

Would the Project:	<i>New Potentially Significant Impact</i>	<i>New Mitigation Required</i>	<i>No Impact/ No New Impact</i>	<i>Reduced Impact</i>
a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the Project may impede sustainable groundwater management of the basin?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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;	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
ii).substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site;	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
iv) impede or redirect flood flows?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to Project inundation?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) Conflict with or obstruct implementation of a	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

water quality control plan or sustainable
groundwater management plan?

Discussion

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

No New Impact.

Backcountry Reservoir

Potential water quality impacts of the Backcountry Reservoir would be the same as the impacts of the tank considered in the Mission Village EIR. Construction of the Backcountry Reservoir could result in impacts to surface water quality from construction site pollutants, including sediment, if storm water discharges are not controlled. However, compliance with the SWRCB's NPDES Construction General Permit for storm water discharges and implementation of erosion controls and other best management practices (BMPs) in the proposed Project's SWPPP, would ensure impacts to surface water quality are minimized. Compliance with RWQCB's NPDES General Permit for Construction Dewatering and Test Water Discharges would also minimize potential impacts to downstream water quality during construction. Project design would incorporate site drainage measures to minimize runoff, and no chemical or other materials would be kept on site that could contribute to downstream water quality impacts. Operation of the reservoir would require compliance with NPDES permits during maintenance discharges to the storm drain system. Impacts to water quality would be less than significant.

Backcountry Pump Station

Like the Backcountry Reservoir, construction of the Backcountry Pump Station, as well as the distribution pipelines could cause impacts to surface water quality if construction site pollutants (e.g., diesel fuel, sediments) are not controlled. Construction of the Backcountry Pump Station would comply with the Construction General Permit for storm water discharges. A SWPPP would be prepared, which would include erosion control measures and other BMPs. The proposed Project's SWPPP would be implemented during pump station and pipeline construction to minimize potential impacts to surface water quality. Construction of the Backcountry Pump Station would also involve dewatering, which would be conducted in compliance with the General Permit for Construction Dewatering and Test Water Discharges. Like Backcountry Reservoir, the Backcountry Pump Station would be designed to minimize runoff from the site, reducing the potential for downstream water quality impacts. Operation of the Backcountry Pump Station would include potable water quality monitoring, with sampling stations located on site. To discharge water samples containing chloramines into the local wastewater collection system, an Industrial Waste Discharge Permit would be required by the County of Los Angeles Department of Public Works (LACDPW). The Backcountry Pump Station would also have diesel fuel tanks on site, which would be used to operate the backup generator in the event of a power loss at the Backcountry Pump Station. The fuel tanks would be double-walled, equipped with spill boxes, and would be installed within containment walls, which would prevent water quality impacts in the event of a spill or leak. Impacts to water quality from the Backcountry Pump Station would be less than significant.

Mission Village EIR Findings

The Mission Village EIR concluded that the water quality impacts from construction would be controlled by compliance with the Construction General Permit for stormwater discharges and SWPPP as well as compliance with the General Permit for Dewatering Discharges. After construction, implementation of a

Standard Urban Storm Water Management Plan required by the Los Angeles County municipal separate storm sewer system permit would control pollutants in the runoff from developed areas as well as downstream hydromodification impacts. Impacts were determined to be less than significant.

Conclusion: The proposed Project would not result in new water quality impacts or increase the severity of impacts identified in the Mission Village EIR. No additional mitigation measures would be necessary because impacts of the Backcountry Reservoir and Pump Station Project would be the same as the impacts of the tank described in the Mission Village EIR.

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

No New Impact.

Backcountry Reservoir

Construction and operation of the Backcountry Reservoir would not affect groundwater recharge or impede groundwater sustainability of the Santa Clara River Valley East Subbasin. As with the tank identified in the Mission Village EIR, the Backcountry Reservoir would provide operational and emergency storage of potable water to supply drinking water during a short-term outage or disruption to the regional water supply system. Construction of the Backcountry Reservoir, including the concrete reservoir and access road, would result in a minimal increase in impervious surface area within Mission Village, and thus would not adversely impact groundwater recharge, similar to the tank identified in the Mission Village EIR. Ongoing operation of the Backcountry Reservoir would not increase demand for water, nor require new sources of supply or increases in groundwater production to supply potable water to the proposed reservoir, which would be similar to the operation of a tank as described in the Mission Village EIR. The proposed Backcountry Reservoir would be supplied using SCV Water's existing water supply sources, which include imported water and local groundwater. Supply for operational and emergency storage has been accounted for in SCV Water's long range water supply planning, which takes into account sustainability of the existing groundwater basin. No impact to groundwater supplies or groundwater recharge affecting sustainable management of the groundwater basin would be expected.

Backcountry Pump Station

Construction and operation of the Backcountry Pump Station and distribution pipelines would not affect groundwater recharge or impact sustainable groundwater management of the Santa Clara River Valley East subbasin (which underlies the Backcountry Pump Station site). The Backcountry Pump Station would provide pressure to deliver water to Backcountry Reservoir; the Backcountry Pump Station would not consume water. The Backcountry Pump Station site and footprint of the distribution pipelines are currently paved, and therefore, would not create an increase in impervious surface area that would reduce groundwater recharge. As discussed for the Backcountry Reservoir above, operation of the Backcountry Pump Station would not increase demand for water or require new water sources. Therefore, the Backcountry Pump Station, including the distribution pipelines would have no impact to groundwater supplies, groundwater recharge, or groundwater sustainability.

Mission Village EIR Findings

The Mission Village EIR concluded that the increased potable water demand for the project would be met through the use of the Newhall Land and Farming Company's rights to groundwater, which they have used for agricultural irrigation. Because this water is already used to support agricultural uses, the Mission Village EIR concluded that there would be no significant impacts on water supplies including the

groundwater basin. In addition, due to project conditions of approval, the amount of groundwater that would be used to meet the potable demands of the Newhall Ranch Specific Plan, including the Mission Village project, cannot exceed the amount of water historically and presently used by the Newhall Land and Farming Company for agricultural uses. Therefore, no net increase in groundwater use would occur with implementation of the Mission Village development pursuant to the Newhall Ranch Specific Plan. With implementation of mitigation measures, impacts on groundwater sustainability were less than significant.

Conclusion: The proposed Project would not increase impacts associated with groundwater sustainability or increase the severity of such impacts identified in the Mission Village EIR. No additional mitigation measures would be necessary because the Backcountry Reservoir would be located on the same site and used for the same purpose as the tank described in the Mission Village EIR, and the Backcountry Pump Station would enable water delivery to the Backcountry Reservoir and would not consume water.

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?

No New Impact.

Backcountry Reservoir

During construction of the Backcountry Reservoir, erosion or siltation of soil on or off-site would be controlled by implementation of BMPs in the proposed Project SWPPP, which would be similar to construction of the tank described in the Mission Village EIR. The site is currently fully pervious, but after construction, the reservoir and access road would result in minor increase in impervious surface area. The reservoir site drainage was accounted for in design of the Mission Village storm drain system. The reservoir would slightly increase surface runoff to the local storm drain system, but would not result in flooding on or off-site, nor exceed the planned capacity of the local storm drain system in Mission Village, nor provide substantial additional sources of polluted runoff. The reservoir site is not located adjacent to a stream or flood control channel and would not impede flood flows. With implementation of mitigation measures (i.e., MV 4.2-8 from the Mission Village EIR), any potential impacts would be minimized to less than significant.

Backcountry Pump Station

The Backcountry Pump Station site and footprint of the distribution pipelines are currently fully paved and impervious; therefore, construction of the Backcountry Pump Station would not substantially alter the existing drainage pattern of the site or increase impervious surface area. The potential for erosion or siltation on- or off-site would be addressed through the SWPPP discussed in Hydrology and Water Quality impact a), above. The Backcountry Pump Station would not increase impervious surface area that could create flooding or exceed the capacity of drainage systems. The Backcountry Pump Station and distribution pipelines are not located in a flood zone and would not impede or redirect flood flows. The Backcountry Pump Station would have no impact on drainage patterns.

Mission Village EIR Findings

The Mission Village EIR concluded that development of Mission Village would have a less than significant impact on the potential for downstream sedimentation during construction with implementation of erosion

controls. Post-development drainage would be managed through project designs to control drainage and flooding on- and off-site. With implementation of mitigation measures, impacts were found to be less than significant.

Conclusion: The Backcountry Reservoir would not result in new drainage or flooding impacts or increase the severity of such impacts identified in the Mission Village EIR, and no additional mitigation measures would be necessary because the reservoir would be located on the same site and operate with the same purpose as the tank described in the Mission Village EIR. The Backcountry Pump Station would not result in new drainage or flooding impacts because no impervious surface area would be added. Thus, the proposed Project would have no new impact.

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

No impact. The Backcountry Reservoir is not located in a 100-year flood, tsunami, or seiche zone. No chemicals would be stored on-site at the Backcountry Reservoir during operation. The Backcountry Pump Station is not located in a 100-year flood, tsunami, or seiche zone. The Backcountry Pump Station would have diesel fuel stored on site; diesel would be stored in double-walled tanks with spill boxes, which would also be located within containment walls. The Backcountry Pump Station site is not considered vulnerable to inundation. Therefore, no impacts from risk of release of pollutants would occur from a flood, tsunami or seiche, which is consistent with the findings in the Mission Village EIR. The proposed Project would have no new impact.

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

No New Impact.

Backcountry Reservoir and Pump Station

See discussions under Hydrology and Water Quality impacts a) and b) above. As with a tank described in the Mission Village EIR, the proposed Project would comply with SWRCB and RWQCB permits to control water quality, which are designed to maintain water quality standards in water quality control plans. Additionally, the proposed Project would not be expected to conflict with the Santa Clara River Valley East Groundwater Subbasin Groundwater Sustainability Plan because the proposed Project (like the tank described in the Mission Village EIR) would not affect groundwater recharge or existing groundwater production as discussed previously in Hydrology and Water Quality impact b) above. No conflicts with these plans would be expected.

Mission Village EIR Findings

The Mission Village EIR concluded that the Mission Village development would not significantly impact water quality and groundwater usage. See discussion under Hydrology and Water Quality impacts a) and b) above.

Conclusion: The proposed Project would not increase conflicts with or the obstruct implementation of a water quality control plan or sustainable groundwater management plan or increase the severity of such conflicts or obstructions identified in the Mission Village EIR. No additional mitigation measures would be necessary because the Backcountry Reservoir would be located on the same site and operate with the same purpose as the tank described in the Mission Village EIR, and the Backcountry Pump Station would not consume water, or impact water quality or groundwater management.

Applicable Mitigation Measures from Mission Village EIR and Newhall Ranch Program EIR:

MV 4.2-8: A final developed condition hydrology analysis (LACDPW Drainage Concept Report [DCR] and Final Design Report [FDR]) shall be prepared in conjunction with final project design when precise engineering occurs. This final analysis shall confirm that the final project design is consistent with this analysis. This final developed condition hydrology analysis shall confirm that the sizing and design of the water quality and hydrologic control BMPs control hydromodification impacts in accordance with the Newhall Ranch Sub-Regional Stormwater Mitigation Plan. All elements of the storm drain system shall conform to the policies and standards of the LACDPW, Flood Control Division, as applicable.

SCV Water Implementation Action for MV 4.2-8: SCV Water shall ensure the proposed Project drainage design is consistent with the drainage analysis prepared for the Mission Village development as approved by Los Angeles County, as well as the Newhall Ranch Sub-Regional Stormwater Mitigation Plan as approved by Los Angeles County, as applicable, to minimize erosion from the site during construction and to minimize water quality impacts during and after construction. Additionally, the storm drain system shall conform to the policies and standards of the Los Angeles County Department of Public Works, Flood Control Division.

New Mitigation Measures:

None needed.

5.11 Land Use and Planning

Would the Project:	<i>New Potentially Significant Impact</i>	<i>New Mitigation Required</i>	<i>No Impact/ No New Impact</i>	<i>Reduced Impact</i>
a) Physically divide an established community?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Discussion

a) Physically divide an established community?

No Impact.

Backcountry Reservoir

The Backcountry Reservoir is partially buried water supply reservoir located on land designated for a public water facility and would not physically divide an established community. No impact would occur.

Backcountry Pump Station

The Backcountry Pump Station would be located on a vacant parcel adjacent to a major roadway (Magic Mountain Parkway), existing recreational/open space, and transmission towers. The distribution pipelines would be constructed in the Magic Mountain Parkway right-of-way. The Backcountry Pump Station would have a limited footprint and would be located on a site that is currently surrounded by fencing. The

Backcountry Pump Station would not impede pedestrian or vehicle circulation in the area of the site. The Backcountry Pump Station would not physically divide an established community. No impact would occur.

Mission Village EIR Findings

The Mission Village EIR did not include an evaluation of land use impacts. The Mission Village land use plan conforms with the adopted Newhall Ranch Specific Plan.

Conclusion: The proposed Project would not physically divide an established community and there would be no impact.

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?

No Impact.

Backcountry Reservoir

The Backcountry Reservoir would be constructed on land designated and zoned for a public water facility in the Mission Village Specific Plan. No land use planning impact would occur.

Backcountry Pump Station

The Backcountry Pump Station would be constructed on land zoned by the City of Santa Clarita as Business Park (City of Santa Clarita, 2016), and distribution pipelines would be constructed in the Magic Mountain Parkway right-of-way. Public water-related facilities are a permitted use in the Business Park zone according to the City of Santa Clarita zoning code. Therefore, the Backcountry Pump Station would not conflict with existing land use policy. No impact would occur.

Mission Village EIR Findings

The Mission Village EIR did not include an evaluation of land use impacts. The Mission Village land use plan conforms with the adopted Newhall Ranch Specific Plan.

Conclusion: The proposed Project would not conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect, and there would be no impact.

Applicable Mitigation Measures from Mission Village EIR and Newhall Ranch Program EIR:

None needed.

New Mitigation Measures:

None needed.

5.12 Mineral Resources

Would the Project:

	<i>New Potentially Significant Impact</i>	<i>New Mitigation Required</i>	<i>No Impact/ No New Impact</i>	<i>Reduced Impact</i>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

- 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?

Discussion***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?***

No New Impact.

Backcountry Reservoir

The Backcountry Reservoir site was included in the evaluation of mineral resources in the Mission Village EIR. The site was originally zoned by the California Department of Conservation Division of Mines and Geology as MRZ-3, meaning mineral deposits are expected to be present in the area. The site was evaluated and re-zoned by the Newhall Ranch Specific Plan as a public facility site, and the site has since been graded and filled. No impacts to mineral resources would occur from development of the Backcountry Reservoir.

Backcountry Pump Station

According to the City of Santa Clarita General Plan, the Backcountry Pump Station and distribution pipeline sites are designated as MRZ-2 for aggregate mineral resources (City of Santa Clarita, 2011). MRZ-2 areas are underlain by mineral deposits where geologic data indicate that significant measured, or indicated, resources (City of Santa Clarita, 2011). Within the City, areas that have significant mineral aggregate resources have been designated by a zoning overlay that permits extraction and other compatible uses. The Backcountry Pump Station site is not within one of these areas, so mineral resource extraction would not be permitted on the site (City of Santa Clarita, 2013). Therefore, construction of the Backcountry Pump Station on the site would not result in the loss of availability of a known mineral resource, and there would be no impact.

Mission Village EIR Findings

The Mission Village EIR identified that mineral resources were present in the development area but found not to be regionally significant compared to locations in the river corridor which would not be affected by development. The development area was rezoned by the Newhall Ranch Specific Plan. The EIR determined there would be no significant impacts to mineral resources and no mitigation would be required.

Conclusion: The Backcountry Reservoir would not result in new impacts to mineral resources or increase the severity of such impacts identified in the Mission Village EIR, and no additional mitigation measures would be necessary because it would be located on the same site as the tank described in the Mission Village EIR. The Backcountry Pump Station would not result in new or more severe impacts because it is located on a site where mineral extraction is not permitted. Thus, the proposed Project would not 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, and there would be no impact.

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?

No New Impact. As discussed in Mineral Resources Impact a), the Backcountry Reservoir site was evaluated for mineral resources in the Mission Village EIR. The site was originally zoned as an existing oil and natural gas extraction area in the Santa Clarita Valley Area Plan. The site was evaluated and re-zoned by the Newhall Ranch Specific Plan as a public facility site, and the site has since been graded and filled. The Backcountry Pump Station site is zoned as a Business Park site and neither the Backcountry Pump Station nor distribution pipeline locations are within the mineral extraction zoning overlay area identified by the City of Santa Clarita (City of Santa Clarita, 2013). No impacts to mineral resources would be expected from development of the proposed Project.

Applicable Mitigation Measures from Mission Village EIR and Newhall Ranch Program EIR:

None needed.

New Mitigation Measures:

None needed.

5.13 Noise

Would the Project result in:

	<i>New Potentially Significant Impact</i>	<i>New Mitigation Required</i>	<i>No Impact/ No New Impact</i>	<i>Reduced Impact</i>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Generation of excessive groundborne vibration or groundborne noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Discussion

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?

No New Impact.

Backcountry Reservoir

Construction of the Backcountry Reservoir, similar to the tank described in the Mission Village EIR, would be accomplished using standard construction equipment between weekday hours of 7 a.m. and 7 p.m., in compliance with the County of Los Angeles Ordinance 12.08.440 “Construction Noise” (County of Los Angeles, n.d.) (SP 4.9-1 and MV 4.6-1). Construction maximum noise levels at residential and business structures from mobile and stationary equipment as defined in the Los Angeles Ordinance 12.08.440 are provided in **Table 5-3**. Typical noise emission levels at a reference distance of 50 feet, based on the Federal Highway Administration Construction Noise Handbook (USDOT, 2006) for the construction equipment detailed in Section 2.4, Equipment/Staging, are provided in **Table 5-4**. No pile driving is anticipated to be required. Noise impacts of constructing the Backcountry Reservoir would be the same as impacts from constructing the tank described in the Mission Village EIR.

There are no residential or business structures within 50 feet of the Backcountry Reservoir site. The closest noise receptors to the Backcountry Reservoir site are currently residences and the West Ranch High School located roughly 0.75 miles away along the northwestern border of Stevenson Ranch, California. Noise from point sources, such as construction sites, tend to attenuate at a rate of 6 dBA per doubling of distance (USDOT, 2006). Assuming operation of two of the noisiest pieces of equipment occurred simultaneously, the combined noise level would be 86 dBA at a distance of 50 feet. At a distance of 0.75 miles this noise level would be attenuated to 48 dBA, which is well below maximum allowable noise levels identified in **Table 5-3**. Therefore, Project construction noise would not adversely affect the nearest noise receptors. Implementation of mitigation measures during construction would ensure that noise impacts are less than significant.

Table 5-3: Los Angeles County Construction Noise Restrictions

	At Residential Structures			At Business Structures
	Mobile Equipment (Stationary Equipment)			Mobile Equipment (Stationary Equipment)
	Single-family Residential	Multi-family Residential	Semi-residential/ Commercial	
Daily, except Sundays and legal holidays, 7:00 a.m. to 8:00 p.m.	75dBA (60dBA)	80dBA (65dBA)	85dBA (70dBA)	
Daily, 8:00 p.m. to 7:00 a.m. and all-day Sunday and legal holidays	60dBA (50dBA)	64dBA (55dBA)	70dBA (60dBA)	
Daily, including Sunday and legal holidays, all hours				85dBA (NA)

Source: Los Angeles County Code of Ordinances, 12.08.440 Construction Noise (County of Los Angeles, n.d.)

**Table 5-4: Roadway Construction Noise Model Default Noise Emission Reference Levels –
Backcountry Reservoir**

Equipment Type	Equipment and Operation Noise levels @ 50 feet
Excavator	81
Track Loader	79
Highway legal dump truck	76
Flatbed truck (material delivery)	74
Pickup trucks	75
Worker vehicles	75
Crane	81
Paver	77
Compactor	83
Grader	N/A
Source: U.S. Department of Transportation, Federal Highway Administration "Construction Noise Handbook" (USDOT, 2006) Note: Typical noise levels from "pickup truck" were used as a proxy for "worker vehicles;" typical noise levels from "front end loader" were used as a proxy for "track loader."	

Operation of the partially buried reservoir would contribute a negligible increase to the ambient noise environment. Twisted shielded pair control cable would be used to reduce electrical noise within on-site equipment. No long-term operational noise impacts would be expected.

Backcountry Pump Station

The Backcountry Pump Station and distribution pipelines would be located within the city of Santa Clarita. The City of Santa Clarita municipal code regulates construction noise as follows: "No person shall engage in any construction work which requires a building permit from the City on sites within three hundred (300) feet of a residentially zoned property except between the hours of seven a.m. to seven p.m., Monday through Friday, and eight a.m. to six p.m. on Saturday. Further, no work shall be performed on the following public holidays: New Year's Day, Independence Day, Thanksgiving, Christmas, Memorial Day and Labor Day" (City of Santa Clarita, n.d.c). The City of Santa Clarita does not include specific noise limits for construction activities. All construction activities for the Backcountry Pump Station and distribution pipelines would take place within daytime hours as permitted under the City of Santa Clarita municipal code. Therefore, construction of the pump station would not conflict with City of Santa Clarita noise standards.

**Table 5-5: Roadway Construction Noise Model Default Noise Emission Reference Levels –
Backcountry Pump Station**

Equipment Type	Equipment and Operation Noise levels @ 50 feet
Excavator	81
Track Loader	79
Highway legal dump truck	76
Flatbed truck (material delivery)	74
Pickup trucks	75
Worker vehicles	75
Crane	81
Paver	77
Compactor	83
Grader	N/A
Water Truck	74
Forklift	78
Source: U.S. Department of Transportation, Federal Highway Administration "Construction Noise Handbook" (USDOT, 2006) Note: Typical noise levels from "pickup truck" were used as a proxy for "worker vehicles;" typical noise levels from "front end loader" were used as a proxy for "track loader;" typical noise levels from "flatbed truck" were used as a proxy for "water truck;" typical noise levels from "backhoe" were used as proxy for "forklift."	

The nearest sensitive receptor to the Backcountry Pump Station and distribution pipelines is the residential development along Magic Mountain Parkway, approximately 1,000 feet east of the site. As summarized above in the discussion of Backcountry Reservoir, if two of the noisiest pieces of equipment were used simultaneously, the combined noise level would be 86 dBA at a distance of 50 feet. At a distance of 1,000 feet, this would attenuate to 60 dBA, which is approximately the volume of a normal conversation. Although the City of Santa Clara does not set specific construction noise thresholds, construction noise would be within the acceptable permanent daytime sound levels for residential zones in the City of Santa Clara, which is set at 65 dB (Table 5-6) (City of Santa Clara, 2011). Therefore, Backcountry Pump Station construction noise would not adversely affect the nearest noise receptors. Construction noise impacts would be less than significant.

Table 5-6: City of Santa Clara Noise Thresholds

Land Use	Time	Sound Level (dB)
Residential zone	Day	65
Residential zone	Night	55
Commercial and manufacturing	Day	80
Commercial and manufacturing	Night	70

During operation of the Backcountry Pump Station, noise would be generated from pumps and electrical equipment. The pumps would be located within a CMU building. Electrical and controls systems and a backup generator would also be situated within the pump building. Traffic on Magic Mountain Parkway

would influence the ambient noise levels at the Backcountry Pump Station site, and noise from the pump station would not be expected to significantly alter the ambient noise level. The distribution pipelines would be buried and would not generate noise. The City of Santa Clarita sets acceptable noise levels for residential, commercial, and manufacturing zones as shown in **Table 5-6**. The pump station would be enclosed and would be designed in accordance with applicable standards such that operational noise from the pump station (zoned for industrial use) does not exceed 80 dB during the day or 70 dB during the night at the site. Due to the distance between the pump station site and the nearest residential areas (approximately 1,000 feet away), operational noise would attenuate to below residential noise thresholds. Therefore, operational noise from the Backcountry Pump Station would not conflict with the City of Santa Clarita noise standards or adversely affect sensitive receptors, and impacts would be less than significant.

Mission Village EIR Findings

The Mission Village EIR identified that construction activities would create temporary noise impacts, and long-term noise impacts could occur from mobile sources (traffic), but impacts would be mitigated to less than significant with implementation of mitigation measures.

Conclusion: The Backcountry Reservoir would not result in new noise impacts or increase the severity of noise impacts identified in the Mission Village EIR for a tank developed on the same site. The Backcountry Pump Station would have a less-than-significant impact. No additional mitigation measures would be necessary.

b) Generation of excessive groundborne vibration or groundborne noise levels?

No New Impact.

Backcountry Reservoir and Pump Station

The proposed Project would not include construction that would create excessive vibration such as piling driving. Impacts would be less than significant.

Mission Village EIR Findings

The Mission Village EIR identified the potential for vibration impacts from piling driving required for some construction activities, including bridge construction. Significant impacts were reduced with implementation of mitigation measures.

Conclusion: The proposed Project would not result in new vibration impacts or increase the severity of vibration impacts identified in the Mission Village EIR and no additional mitigation measures would be necessary.

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

No Impact. The proposed Project, like the tank described in the Mission Village EIR, would not include inhabited structures or be located within an airport land use plan or within two miles of a public or public use airport, and therefore would not expose people to excess noise. No impact would occur.

Applicable Mitigation Measures from Mission Village EIR and Newhall Ranch Program EIR:

SP 4.9-1: All construction activity occurring on the Newhall Ranch Specific Plan site shall adhere to requirements of the “County of Los Angeles Construction Equipment Noise Standards,” County of Los Angeles Ordinance No. 11743, Section 12.08.440 as identified in Specific Plan Program EIR Table 4.9-3.

MV 4.6-1: The project applicant, or its designee, shall not undertake construction activities that can generate noise levels in excess of the County’s Noise Ordinance on Sundays or legal holidays.

SCV Water Implementation Action for SP4.9-1 and MV4.6-1: SCV Water shall ensure that proposed Project construction adheres to the requirements of the County of Los Angeles Ordinance 12.08.440 “Construction Noise” which prohibits construction activities between weekday hours of 7:00 p.m. and 7:00 a.m., or at any time on Sundays or holidays.

New Mitigation Measures:

None needed.

5.14 Population and Housing

	<i>New Potentially Significant Impact</i>	<i>New Mitigation Required</i>	<i>No Impact/ No New Impact</i>	<i>Reduced Impact</i>
Would the Project:				
a) Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Displace substantial numbers of existing people or, housing necessitating the construction of replacement housing elsewhere?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Discussion

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

No Impact.

Backcountry Reservoir

The impacts of the Backcountry Reservoir would be the same as the impacts of the tank considered in the Mission Village EIR and would not induce unplanned population growth in the area. The reservoir would provide planned operational and emergency storage to supply drinking water to the existing and planned communities in SCV Water’s Zone B/Magic Mountain Zone. Operational and emergency storage of potable water to supply drinking water to the regional water supply system would increase reliability of water supply to the area, but would not provide additional supply that could be used to support additional population growth. No impact would occur.

Backcountry Pump Station

The purpose of the Backcountry Pump Station is to provide adequate pressure to supply water to the Backcountry Reservoir. Distribution pipelines would also be constructed in order to facilitate conveyance of water to Zone I and Zone IIA-N within SCV Water's existing service area. The Backcountry Pump Station would not provide additional water supply that could result in additional population growth. No impact would occur.

Mission Village EIR Findings

The Mission Village EIR did not include an evaluation of population and housing impacts. The Mission Village land use plan conforms with the adopted Newhall Ranch Specific Plan and Program EIR, which addressed planned population growth and housing.

Conclusion: The proposed Project would not directly or indirectly induce substantial unplanned population growth, and there would be no impact.

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

No Impact.

Backcountry Reservoir

The Backcountry Reservoir would not displace people or housing. The reservoir would be constructed on currently vacant land designated for a Public Water Tank and would provide planned operational and emergency storage for SCV Water's Zone B/Magic Mountain Zone regional water supply system. As with the tank described in the Mission Village EIR, no impact would occur.

Backcountry Pump Station

The Backcountry Pump Station would not displace people or housing. The Backcountry Pump Station would be located on a vacant site that is zoned for Business Park use by the City of Santa Clarita, and distribution pipelines would be located in the roadway right-of-way. No impact would occur.

Mission Village EIR Findings

The Mission Village EIR did not evaluate displacement of people or housing. The Mission Village land use plan conforms with the adopted Newhall Ranch Specific Plan and Program EIR, which addressed any potential displacement of people or housing.

Conclusion: The proposed Project would not displace people or housing, and there would be no impact.

Applicable Mitigation Measures from Mission Village EIR and Newhall Ranch Program EIR:

None needed.

New Mitigation Measures:

None needed.

5.15 Public Services

Would the Project:	<i>New Potentially Significant Impact</i>	<i>New Mitigation Required</i>	<i>No Impact/ No New Impact</i>	<i>Reduced Impact</i>
a) Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the public services:	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
i) Fire protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
ii) Police protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
iii) Schools?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
iv) Parks?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
v) Other public facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Discussion

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

No Impact.

Backcountry Reservoir

The Backcountry Reservoir, like the tank described in the Mission Village EIR, would not change existing demand for public services (e.g., fire and police protection, schools, parks, libraries, or health clinics) because the reservoir would provide operational and emergency water storage and would not induce population growth requiring new public services. Therefore, the Backcountry Reservoir would not result in the need for new or alterations to public service facilities. No impacts to public services would be expected.

Backcountry Pump Station

The purpose of the Backcountry Pump Station would be to provide adequate pressure to deliver water to Backcountry Reservoir; the associated distribution pipelines would convey water to Zone I and Zone IIA-N within SCV Water’s existing service area. The Backcountry Pump Station would not induce population growth requiring new or altered public service facilities. Therefore, the Backcountry Pump Station would not impact public services.

Mission Village EIR Findings

The Mission Village EIR found there would be significant impacts on public services due to the generation of new population to the area, but funding sources would be available to construct required new public service facilities, and impacts were reduced to less than significant.

Conclusion: The Backcountry Reservoir would not result in new public service impacts or increase the severity of impacts identified in the Mission Village EIR for a tank located at the same site described in the Mission Village EIR. The Backcountry Pump Station component would not cause new or increased public service impacts. The proposed Project would have no new impact and no additional mitigation measures would be necessary.

Applicable Mitigation Measures from Mission Village EIR and Newhall Ranch Program EIR:

None needed.

New Mitigation Measures:

None needed.

5.16 Recreation

	<i>New Potentially Significant Impact</i>	<i>New Mitigation Required</i>	<i>No Impact/ No New Impact</i>	<i>Reduced Impact</i>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Discussion

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?

No Impact. The Backcountry Reservoir and Pump Station Project (including V-9 Turnout Facility and distribution pipelines), like the tank described in the Mission Village EIR, would not directly or indirectly induce population growth and would have no impact on recreational facilities. (See discussion under Population and Housing Impact a) and Public Services Impact a).)

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?

See discussion under Recreation impact a) above.

Applicable Mitigation Measures from Mission Village EIR and Newhall Ranch Program EIR:

None needed.

New Mitigation Measures:

None needed.

5.17 Transportation

Would the Project:	<i>New Potentially Significant Impact</i>	<i>New Mitigation Required</i>	<i>No Impact/ No New Impact</i>	<i>Reduced Impact</i>
a) Conflict with a program plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Result in inadequate emergency access?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Discussion

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

No New Impact.

Backcountry Reservoir

Construction of the Backcountry Reservoir is expected to occur over an estimated 18 month period, on weekdays between 7 AM to 6 PM. Vehicle trip estimates include 64 dump truck trips per day during soil hauling and 10 concrete truck trips per day during concrete work (Details provided earlier in **Table 2-1** and **Table 2-3**). No lane closures would be expected to accommodate construction. After construction, operation of the Backcountry Reservoir would generate up to four worker truck trips per week for inspection and maintenance. Primary access to and from the reservoir site during construction and operation would be off the future extension of Magic Mountain Parkway, which could accommodate this limited volume of truck traffic. The Backcountry Reservoir is not expected to have any impact on existing local or regional transportation plans or programs, which would be the same as the tank described in the Mission Village EIR. Impacts would be less than significant.

Backcountry Pump Station

Construction of the Backcountry Pump Station (including V-9 Turnout Facility and distribution pipelines) is anticipated to occur over approximately 18 to 24 months, on weekdays between 7 AM to 7 PM. Vehicle

trip estimates include approximately 260 truck trips for soil hauling, concrete, and materials delivery. Work would primarily be confined to the pump station site, with additional work in the Magic Mountain Parkway right of way to connect the pump station to the existing Magic Mountain Pipeline, to complete potential driveway improvements, and to construct distribution pipelines. This work may require temporary lane closures, which would be conducted in accordance with the traffic control plan (MV 4.5-7 from the Mission Village EIR). The site would be accessed from the existing portion of Magic Mountain Parkway. During operation, approximately one vehicle trip would occur per week for inspection, maintenance, and water quality sampling. Magic Mountain Parkway can accommodate the limited construction and operational traffic generated by the Backcountry Pump Station. The Backcountry Pump Station would have a less than significant impact on existing local or regional transportation plans or programs.

Mission Village EIR Findings

The Mission Village EIR concludes that temporary traffic impacts during construction of the Mission Village development would be less than significant with implementation of traffic management controls as needed. Long term operation impacts from the new estimated 58,000 average daily trips from project buildout would be reduced to less than significant with planned roadway capacity improvements.

Conclusion: The proposed Project would not result in new transportation system impacts or increase the severity of impacts identified in the Mission Village EIR. No additional mitigation measures would be necessary because Backcountry Reservoir would be located on the same site as described in the Mission Village EIR and the Backcountry Pump Station would have a less than significant impact, requiring no mitigation.

b) Conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?

No New Impact.

Backcountry Reservoir and Backcountry Pump Station

CEQA Guidelines section 15064.3, subdivision (a), provides that “For the purposes of this section, ‘vehicle miles traveled’ refers to the amount and distance of automobile travel attributable to a project.” During construction, automobile and other passenger vehicle travel would consist of trips by construction workers and staff commuting to the proposed Project sites. As noted in **Table 2-3** and **Table 2-4**, the proposed Project would require about 14 construction worker trips per day during the construction period. According to the *Technical Advisory on Evaluating Transportation Impacts in CEQA* (Governor’s Office of Planning and Research, 2018), “projects that generate or attract fewer than 110 trips per day generally may be assumed to cause a less-than-significant transportation impact.” Construction trips would be temporary and would be far less than 110 trips per day and would thus not result in a perceivable increase in vehicle miles traveled (VMT), per the criteria for evaluation in CEQA Guidelines Section 15064.3, subdivision (b). Vehicle trips for operation and maintenance (O&M) for both the Backcountry Reservoir and Backcountry Pump Station would be limited and incorporated into SCV Water’s existing O&M program. The VMT for the proposed Project would be minimal, and therefore the proposed Project would not conflict with CEQA Guidelines Section 15064.3.

Mission Village EIR Findings

The Mission Village EIR did not evaluate transportation impacts using the VMT methodology and criteria because the EIR was certified before VMT analysis was required by the CEQA Guidelines. Nevertheless, the Mission Village EIR concluded that transportation impacts would be reduced to less than significant with mitigation in accordance with the methodologies required at the time of EIR.

Conclusion: The proposed Project would not result in new transportation impacts or increase the severity of impacts identified in the Mission Village EIR, and no mitigation measures would be necessary because Backcountry Reservoir would be located on the same site and be operated for the same purpose as the tank described in the Mission Village EIR, and the Backcountry Pump Station would have no impact.

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

No Impact.

Backcountry Reservoir

The Backcountry Reservoir includes a 20-foot-wide drivable access road around the reservoir. This size would allow both a 30-foot construction truck and 32-foot fire truck to maneuver around the reservoir. No road design hazards would be expected.

Backcountry Pump Station

The Backcountry Pump Station includes 30 feet of clear space surrounding the flow control and pressure reducing station and bypass station, which would allow maintenance access. The pump building would have 25 feet of clear space to allow for vehicle access. The access road and other paved site components would be designed in compliance with applicable fire codes to allow for emergency vehicle access. The roadway surface of Magic Mountain Parkway would be restored to its previous condition following construction of the distribution pipelines. The Backcountry Pump Station would not increase roadway design hazards. The Backcountry Pump Station would have no impact on hazards due to geometric design features or incompatible uses.

Mission Village EIR Findings

The Mission Village Initial Study to the EIR concluded that the project would not result in impacts related to geometric design features or incompatible uses.

Conclusion: The proposed Project would not result in new hazards or increase the severity of hazards identified in the Mission Village EIR. No mitigation measures would be necessary because the Backcountry Reservoir and Backcountry Pump Station would have no impact.

d) Result in inadequate emergency access?

No Impact.

Backcountry Reservoir

No lane closures would be expected during construction of the Backcountry Reservoir although construction vehicles would need to access the site. Impacts to emergency response vehicles during emergencies would be less than significant with implementation of mitigation measures (MV 4.57 from the Mission Village EIR). In addition, design of the 20-foot wide perimeter access road is in compliance with the Los Angeles County Fire Department turnaround standards, and the entrance to the reservoir site is large enough to satisfy the County's hammer-head turnaround requirement. No emergency access impacts would be expected during long term operation of the reservoir.

Backcountry Pump Station

Lane closures may be required during construction of the Backcountry Pump Station in order to connect to the existing Magic Mountain Pipeline, to complete potential driveway improvements, and to construct distribution pipelines. These closures would be temporary and would be implemented in accordance with a project-specific traffic control plan (MV 4.5-7 from the Mission Village EIR), including coordination with local emergency response agencies to ensure adequate access to the pump station site and surrounding areas. The Backcountry Pump Station access road would be designed to be compliant with turnaround space and road width standards to accommodate emergency vehicles. Thus, the Backcountry Pump Station would not result in inadequate emergency access. Impacts would be less than significant, and no mitigation would be needed.

Mission Village EIR Findings

The Mission Village Initial Study to the EIR concluded that the project would not result in inadequate emergency access.

Conclusion: Similar to the water tank evaluated in the Mission Village EIR, the proposed Project would not result in inadequate emergency access. No mitigation measures would be necessary because the Backcountry Reservoir and Backcountry Pump Station would have no impact on emergency access.

Applicable Mitigation Measures from Mission Village EIR and Newhall Ranch Program EIR:

MV 4.5-7: Prior to the commencement of project construction activities, the project applicant shall institute construction traffic management controls in accordance with the California Department of Transportation (Caltrans) traffic manual. These traffic management controls shall include measures determined on the basis of site-specific conditions including, as appropriate, the use of construction signs (e.g., "Construction Ahead") and delineators, and private driveway and cross-street closures.

SCV Water Implementation Action MV 4.5-7: Prior to project construction, SCV Water shall require its construction contractor to prepare and implement a Traffic Control Plan, to be approved by the SCV Water project manager. The Traffic Control Plan shall, at a minimum:

- Identify staging locations to be used during construction;
- Identify safe ingress and egress points from staging areas;
- Establish haul routes for construction-related vehicle traffic; and
- Identify alternative safe routes to maintain pedestrian and bicyclist safety during construction.

The Traffic Control Plan shall include provisions for traffic control measures including barricades, warning signs, cones, lights, and flag persons, to allow safe circulation of vehicle, bicycle, pedestrian, and emergency response traffic.

SCV Water's project manager shall coordinate with the appropriate emergency services (fire, police, or others) and local municipal jurisdiction regarding construction schedule, project siting, and potential delays due to construction, roadways and access points for emergency services and minimize disruptions to or closures of these locations.

New Mitigation Measures:

None needed.

5.18 Tribal Cultural Resources

	<i>New Potentially Significant Impact</i>	<i>New Mitigation Required</i>	<i>No Impact/ No New Impact</i>	<i>Reduced Impact</i>
a) Would the Project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:				
i) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k), or	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
ii) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision © 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.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Discussion

a) Would the Project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is: (i) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k), or (ii) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.

No Impact.

Backcountry Reservoir

There are no tribal trust boundaries or tribal trust lands within the Backcountry Reservoir site. In addition, the Backcountry Reservoir site is already graded and located entirely on artificial fill. Therefore, no tribal cultural resources would be expected to be encountered during reservoir construction. No impacts would be expected. See also discussion under Cultural Resources impact a).

Backcountry Pump Station

A Cultural Resources Survey was prepared for the Backcountry Pump Station site, as described under Cultural Resources impact a). Due to past disturbance at the Backcountry Pump Station site and footprint of the distribution pipelines, it is unlikely that tribal cultural resources are present. Unanticipated discovery of tribal cultural resources remains a possibility. However, with mitigation measures to minimize disturbance area and require appropriate evaluation in the event that resources are found (SP 4.3-3 and MV 4.20-1), this impact would be less than significant.

Mission Village EIR Findings

The Mission Village EIR did not examine Tribal Cultural Resource impacts as it was not an environmental resource topic in the Appendix G Checklist of the CEQA Guidelines at the time the Mission Village EIR was prepared. Nevertheless, the site was surveyed for cultural resources which includes Native American cultural resources, and with incorporation of mitigation measures, no significant cultural or historical resource impacts were identified.

Conclusion: The proposed Project would not result in new or increased severity of any tribal cultural resource impacts identified in the Mission Village EIR, and no additional mitigation measures would be necessary.

Applicable Mitigation Measures from Mission Village EIR and Newhall Ranch Program EIR:

See **MV 4.20-1** under Section 5.5, Cultural Resources.

See **SP-4.3-3** under Section 5.5, Cultural Resources.

New Mitigation Measures:

None needed.

5.19 Utilities and Service Systems

	<i>New Potentially Significant Impact</i>	<i>New Mitigation Required</i>	<i>No Impact/ No New Impact</i>	<i>Reduced Impact</i>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Have sufficient water supplies available to serve the	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

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? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 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? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

Discussion

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?

No New Impact.

Backcountry Reservoir

The Backcountry Reservoir would provide operational and emergency potable water storage in SCV Water's Zone B/Magic Mountain Zone and would be supplied by existing available SCV Water supplies, delivered to the site via the Magic Mountain pipeline which is in various phases of design and construction. The Backcountry Reservoir, like the tank facility described in the Mission Village EIR, would not require nor result in the construction of any new or expanded water, wastewater treatment, stormwater drainage, natural gas, or telecommunication facilities. Based on preliminary design a new electrical service would be required from SCE to deliver electrical power to meet expected load demand. Temporary construction impacts related to the electrical power connection would be less than significant.

Backcountry Pump Station

The Backcountry Pump Station would be considered a new water facility. However, it would not result in expanded water service beyond that analyzed in the Mission Village EIR. The Backcountry Pump Station, V-9 Turnout Facility and associated distribution pipelines would convey water to zones that are already served by SCV Water. The Backcountry Pump Station would not require new or expanded wastewater treatment, stormwater drainage, natural gas, or telecommunication facilities. It is anticipated that a new electric service would be required from SCE to power the Backcountry Pump Station. Temporary construction impacts related to the electrical power connection would all occur on the Backcountry Pump Station site and would be less than significant.

Mission Village EIR Findings

The Mission Village EIR evaluated all utility and service systems that would be needed to serve build-out of the Mission Village development. The EIR identified significant impacts of project development, some of which could be partially attributed to utility and service system development.

Conclusion: The Backcountry Reservoir would not result in new impacts from construction of utility systems or increase the severity of impacts identified in the Mission Village EIR, and no additional mitigation measures would be necessary because it would be located on the same site and operated for the same purpose as the tank described in the Mission Village EIR. As demonstrated in this Addendum, although the Backcountry Pump Station is located at a separate site, the Backcountry Pump Station would not result in new or more severe impacts than those identified in the Mission Village EIR. The proposed Project would have no new impact due to new or relocated utilities.

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

No New Impact.

Backcountry Reservoir

The Backcountry Reservoir is an operational and emergency potable water storage reservoir to allow SCV Water to supply drinking water to users in SCV Water's Zone B/Magic Mountain Zone. SCV Water has accounted for this water storage volume as part of its operational and emergency water supply planning as discussed in the 2017 E&O study. SCV Water's water supply planning takes into account the effects of water supply availability during normal, dry, and multiple dry years. The reservoir is planned to remain a long-term available source for operational and emergency water supply. Impacts would be less than significant.

Backcountry Pump Station

The Backcountry Pump Station would provide pressure to deliver water to Backcountry Reservoir, as well as to Zone I and Zone IIA-N via associated V-9 Turnout Facility and distribution pipelines. The Backcountry Pump Station would not consume water, therefore there would be no impact.

Mission Village EIR Findings

The Mission Village EIR concluded that the water supply demand of the Mission Village development (2,919 acre-feet per year of potable and non-potable) would be met by use of groundwater and recycled water from new and/or existing water reclamation plants. No significant impacts were identified.

Conclusion: The proposed Project would not result in new water supply impacts or increase the severity of impacts identified in the Mission Village EIR, and no additional mitigation measures would be necessary because Backcountry Reservoir would be located on the same site and operated for the same purpose as the tank described in the Mission Village EIR, and the Backcountry Pump Station would not consume water.

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?

No Impact. The proposed Project involves construction and operation of a potable water storage reservoir and pump station and would not require or result in the need for increased wastewater collection or treatment services. No impact would be expected.

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?

No New Impact.

Backcountry Reservoir

The Backcountry Reservoir would generate minor amounts of solid waste during construction activities, similar to solid waste generation for construction of the tank described in the Mission Village EIR. The construction contractor would be required to dispose of solid waste in accordance with local solid waste disposal requirements, and waste would be hauled to the local permitted landfill. Excavated soil would be balanced on site and hauled to an adjacent development within Mission Village. Construction of the Backcountry Reservoir would not impact landfills beyond their permitted capacities. Operation of the Backcountry Reservoir would be expected to generate a negligible amount of solid waste, similar to what would be expected for the tank described in the Mission Village EIR. Impacts would be less than significant.

Backcountry Pump Station

The City of Santa Clarita's municipal code, Section 15.46, requires diversion of a minimum of 50 percent of the waste materials generated through construction and demolition projects that require City of Santa Clarita permits and are above a certain cost threshold (City of Santa Clarita, N.d.b). Excavated soil is exempt from this ordinance. Construction of the Backcountry Pump Station and distribution pipelines would generate up to about 4,000 cubic yards of exported material. Like solid waste from the Backcountry Reservoir, solid waste generated by the Backcountry Pump Station would be hauled to the local permitted landfill. Other solid waste generated during construction would be minimal as the Backcountry Pump Station site is currently vacant. Relative to the amount of material anticipated to be sent to landfills as part of the Mission Village development, solid waste generated during construction of the Backcountry Pump Station would be negligible. Operation of the Backcountry Pump Station would generate a negligible amount of solid waste. The Backcountry Pump Station would not produce solid waste in excess of state or local standards, or otherwise impair the attainment of solid waste reduction goals. Impacts would be less than significant.

Mission Village EIR Findings

The Mission Village EIR concluded that solid waste generated from construction and operation of the Mission Village development would result in a significant and unavoidable impact on the permitted landfill capacity even with mitigation incorporated.

Conclusion: The proposed Project would not result in new solid waste impacts or increase the severity of solid waste impacts identified in the Mission Village EIR, and no additional mitigation measures would be necessary although the impact, related to the Mission Village development, would remain significant and unavoidable, as disclosed in the Mission Village EIR.

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

See response to Utilities and Service Systems impact d) above.

Applicable Mitigation Measures from Mission Village EIR and Newhall Ranch Program EIR:

None needed.

New Mitigation Measures:

None needed.

5.20 Wildfire

	<i>New Potentially Significant Impact</i>	<i>New Mitigation Required</i>	<i>No Impact/ No New Impact</i>	<i>Reduced Impact</i>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Discussion

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

No New Impact.

Backcountry Reservoir

The Backcountry Reservoir site, like the tank site described in the Mission Village EIR, is located within a State Responsibility Area (SRA), wherein CalFire is the primary emergency response agency responsible for fire suppression and prevention. The site is also located in a VHFHSZ as determined by Los Angeles County in collaboration with CalFire. The proposed Project involves construction and operation of a partially buried potable water storage reservoir, and would not require the closure of any traffic lanes during construction. It would not increase foot or vehicle traffic in the area during long-term operation. Preliminary design of the proposed Project includes an “Auto Turn” analysis which indicated that the 20-foot wide

access road would allow a 32-foot fire truck to maneuver around the reservoir. In addition, the entrance to the reservoir pad was determined to be large enough to satisfy the County's hammer-head turnaround requirement for longer fire trucks. Therefore, the Backcountry Reservoir would not substantially impair an emergency response or emergency evacuation plan which is similar to a tank developed at the same site described in the Mission Village EIR. Impacts would be less than significant.

Backcountry Pump Station

The Backcountry Pump Station would be located approximately one-half mile from an SRA and a very high fire hazard severity zone; the westernmost extent of the distribution pipelines would be located about one-quarter mile from this zone (CalFire, 2019; City of Santa Clarita, N.d.a). As described in Section 5.17, Transportation, construction of the Backcountry Pump Station would primarily occur within the pump station site; with distribution pipeline construction occurring in Magic Mountain Parkway which may require temporary lane closures. Any necessary closures would be conducted in accordance with the traffic control plan (see MV 4.5-7 in Section 5.17), such that construction activities would not impede circulation. All staging would be located at the Backcountry Pump Station site. The Backcountry Pump Station would be designed with sufficient clear space to allow for vehicle access. The access road and other paved site components would be designed in compliance with applicable fire codes to allow for emergency vehicle access. Construction and operation of the Backcountry Pump Station would not substantially impair an emergency response plan or emergency evacuation plan; impacts would be less than significant.

Mission Village EIR Findings

The Mission Village EIR found that with implementation of a construction traffic control plan during construction, and with build-out of two new major arterial access roads with connections to local and state highways, the Mission Village development would not impair implementation or physically interfere with an adopted emergency response or evacuation plan.

Conclusion: The proposed Project would not result in new impairments to emergency response plans or increase the severity of impacts identified in the Mission Village EIR, and no additional mitigation measures would be necessary because Backcountry Reservoir would be located on the same site and operated for the same purpose as the tank described in the Mission Village EIR, and the Backcountry Pump Station would have a less than significant impact. There would be no new impact.

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?

No New Impact.

Backcountry Reservoir

Property damage and public safety risks associated with wildfire are greatest where homes and other structures are located adjacent to large open areas dominated by native vegetation. The Backcountry Reservoir would include construction and operation of a partially buried steel and concrete potable water storage reservoir on an existing rough graded site, devoid of vegetation; this is the same site as the tank described in the Mission Village EIR therefore wildfire risks would be the same. The developed site would contain no habitable structures and minimal landscape vegetation. The absence of vegetation reduces the risk of wildfire spread. During construction, the contractor would be required to implement mitigation measures (MV 4.-3 and MV 4.12-5) to help reduce the risk of wildlife (including spark arrestors on all equipment, fire watch during welding activities, designating smoking and no-smoking areas). With implementation of mitigation measures, the reservoir would have a less than significant impact on the

potential to exacerbate wildfire risks, as these measures combined with the absence of vegetation on the site would ensure that there is virtually no opportunity for ignition of vegetation. In fact, the Backcountry Reservoir would provide an additional and reliable water source in the area that could be used by fire protection services if needed to help prevent the uncontrollable spread of wildfire.

Backcountry Pump Station

As discussed above for Backcountry Reservoir, the Backcountry Pump Station (including V-9 Turnout Facility and distribution pipelines) would have no habitable structures, and only minimal landscaping vegetation would be present, if any. The contractor would implement applicable mitigation measures (MV 4.-3 and MV 4.12-5) during construction to reduce the risk of wildfire (including spark arrestors on all equipment, fire watch during welding activities, designating smoking and no-smoking areas). Operation of the Backcountry Pump Station would not include activities that could exacerbate wildfire risks. With the implementation of mitigation measures, the Backcountry Pump Station would have a less than significant impact in terms of exacerbating wildfire risks.

Mission Village EIR Findings

The Mission Village EIR includes mitigation measures to be implemented during construction to reduce wildfire risk from construction activities. The EIR also includes a requirement to prepare, and submit for approval by Los Angeles County Fire Department, a Wildfire Fuel Modification Plan for the Mission Village development that would reduce risk and spread of wildfire in the development area. Impacts were determined to be less than significant with implementation of mitigation measures including the Wildfire Fuel Modification Plan.

Conclusion: The proposed Project would not result in new wildfire risk impacts or increase the severity of impacts identified in the Mission Village EIR because Backcountry Reservoir would be located on the same site as the tank described in the Mission Village EIR so wildfire risks would be the same, and the Backcountry Pump Station would not create additional wildfire risk. No additional mitigation measures would be necessary.

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?

No New Impact.

Backcountry Reservoir

The Backcountry Reservoir site, which is the same water tank site identified in the Mission Village EIR, is not adjacent to a designated Open Area or High Country Special Management Area of the Newhall Ranch Specific Plan, and therefore not subject to fuel modification zone requirements, although the site is located in a VHFHSZ as designated by Cal Fire and Los Angeles County. The proposed Project involves construction and operation of a partially-buried concrete and steel water storage reservoir, 20-foot wide access road, and associated piping and electrical control equipment on a 1-acre graded site, devoid of vegetation. Electrical power supply to the site would be below ground. The Backcountry Reservoir, like the tank described in the Mission Village EIR, would not require the installation or maintenance of associated infrastructure that may exacerbate fire risk or result in temporary or ongoing impacts to the environment. Reservoir O&M activities would include inspection, water quality testing and cleaning which would not exacerbate fire risk. During construction of the Backcountry Reservoir, the contractor would be required to implement mitigation measures to help reduce the risk of wildfire. With implementation of mitigation

measures, combined with the absence of vegetation on the site there would be virtually no opportunity for ignition of vegetation and the Backcountry Reservoir would have a less than significant impact on the potential to exacerbate wildfire risks.

Backcountry Pump Station

The Backcountry Pump Station and distribution pipelines would function to supply water to the Backcountry Reservoir and zones in SCV Water's current service area; they would not require the installation or maintenance of additional associated infrastructure that could exacerbate fire risk. Operation of the Backcountry Pump Station would include inspection, maintenance visits, and water quality sampling, which would not increase fire risk. With the implementation of mitigation measures (e.g., building code compliance and proper clearance for vegetation), the Backcountry Pump Station would have a less than significant impact.

Mission Village EIR Findings

The Mission Village EIR includes mitigation measures to be implemented during construction to reduce wildfire risk from construction activities. The EIR also includes a requirement to prepare and submit a detailed Wildfire Fuel Modification Plan for the Mission Village development, for approval by the Los Angeles County Fire Department, that would reduce risk and spread of wildfire in the project area. Impacts were determined to be less than significant with implementation of mitigation measures including implementation of the Wildfire Fuel Modification Plan.

Conclusion: The Backcountry Reservoir would not result in new wildfire risks or increase the severity of wildfire risks because it is located on the same tank site as described in the Mission Village EIR so wildfire risks would be the same, and the Backcountry Pump Station would not create additional wildfire risk. No additional mitigation measures would be necessary.

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?

No New Impact.

Backcountry Reservoir

Property damage and public safety risks associated with wildfire are greatest where structures are located adjacent to large open areas dominated by native vegetation. The proposed Project includes construction and operation of a partially buried steel and concrete potable water reservoir on an approximate 1-acre graded site, currently devoid of vegetation, and built upon compacted artificial fill slopes with minimal risk of slope failure. The reservoir would contain no habitable structures and minimal or no landscape vegetation when developed. The site would drain to concrete slope ditches and conveyed to the local storm drain system. The Backcountry Reservoir, like the tank described in the Mission Village EIR, would not be expected to pose a significant risk to people or structures as a result of runoff, post fire slope instability or drainage changes. With implementation of mitigation measures, impacts would be less than significant.

Backcountry Pump Station

The Backcountry Pump Station would help convey water to the Backcountry Reservoir and Zone I and Zone IIA-N within SCV Water's existing service area. The Backcountry Pump Station would contain no habitable structures, and minimal landscaping vegetation would be planted at the site, if any. Site runoff would drain to the existing the local storm drain system. The Backcountry Pump Station site is currently paved and impervious; therefore, the Backcountry Pump Station would not induce additional runoff or alter

site drainage such that people or structures would be exposed to flooding or landslides. The Backcountry Pump Station would not be expected to pose a significant risk to people or structures as a result of runoff, post fire slope instability or drainage changes. Impacts would be less than significant with implementation of mitigation measures.

Mission Village EIR Findings

The Mission Village EIR did not specifically address this new (2018) CEQA checklist question. But the EIR did include provisions for reducing wildfire risks and post-wildfire risks through preparation and implementation of a Wildfire Fuel Modification Zone Plan to reduce the risk and spread of wildfire in the development area. Impacts were determined to be less than significant with implementation of mitigation measures including the Wildfire Fuel Modification Plan.

Conclusion: The Backcountry Reservoir would not result in new wildfire risk impacts or increase the severity of impacts identified in the Mission Village EIR, and no additional mitigation measures would be necessary because it would be located on the same site as the tank described in the Mission Village EIR. The Backcountry Pump Station would have a less-than-significant impact and would not require additional mitigation measures. Therefore, the proposed Project would have no new impact.

Applicable Mitigation Measures from Mission Village EIR and Newhall Ranch Program EIR:

See **SP 4.18-3** and **SCV Water Implementation Action SP 4.18-3** under Section 5.9, Hazards and Hazardous Materials.

See **MV 4.12-5** and **SCV Water Implementation Action SP 4.12-5** under Section 5.9, Hazards and Hazardous Materials.

New Mitigation Measures:

None needed.

5.21 Mandatory Findings of Significance

	<i>New Potentially Significant Impact</i>	<i>New Mitigation Required</i>	<i>No Impact/ No New Impact</i>	<i>Reduced Impact</i>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?

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

Discussion

- 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?***

No New Impact.

Backcountry Reservoir and Backcountry Pump Station

The Backcountry Reservoir is the construction and operation of a 7.9-MG partially buried, concrete and steel potable water reservoir and access road on a 1-acre site. The Backcountry Reservoir site was initially evaluated for biological and cultural resources as part of the Mission Village EIR, but has since been rough graded and is located entirely on artificial fill, devoid of vegetation. The site contains no habitat to support rare or endangered plant or animal species. No native soil would be disturbed as a result of reservoir construction, so no pre-historic resources would be expected to be discovered during grading required for the Backcountry Reservoir. As with the Backcountry Reservoir, the Backcountry Pump Station was evaluated for biological and cultural resources and does not contain habitat that would support rare or endangered plant or animal species. Cultural resources are not anticipated to occur at the Backcountry Pump Station site or footprint of the distribution pipelines. With implementation of mitigation measures noted throughout this document, construction and operation of the Backcountry Reservoir and Pump Station Project would not have the potential to substantially degrade the quality of the environment, reduce wildlife habitat, result in adverse impacts to wildlife populations and communities, or eliminate important examples of major periods of California history or pre-history.

Mission Village EIR Findings

The Mission Village development would have the potential to substantially degrade the quality of the environment from significant unavoidable impacts to biological resources (cumulative loss of coastal scrub habitat), visual qualities, air quality, solid and hazardous waste generation, and agricultural resources (loss of prime agricultural land and cumulative conversion of prime agricultural land to non-agricultural uses), as identified in the Mission Village EIR.

Conclusion: The Backcountry Reservoir and Pump Station Project would not result in an increase in the degradation of environmental resources or increase the severity of degradation identified in the Mission Village EIR. No additional mitigation measures would be necessary because the Backcountry Reservoir would be located on the same site and operated for the same purpose as the tank identified in the Mission Village EIR, and the Backcountry Pump Station would not increase impacts as compared to the Reservoir, although the impact, related to the Mission Village development, would remain significant and unavoidable, as disclosed in the Mission Village EIR.

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)?

No New Impact.

Backcountry Reservoir and Pump Station

In addition to the Backcountry Reservoir and Pump Station Project, SCV Water has long term plans for emergency storage projects consisting of pipelines and storage tanks that would be located in the five emergency storage zones in SCV Water’s 195 square mile service area. The projects would be built-out over an approximate 30-year period (2022 through 2050), and could potentially include the Southern Service Area Reservoir, Sand Canyon Reservoir, Castaic Conduit Parallel Pipeline, Southern Service Pipeline, Southern Service Area Pump Station, Earthquake Hose Pipeline Bypass, and Emergency Earthquake Pipeline Stockpile, Earl Schmidt Reservoir and the Rio Vista Reservoir as discussed in the 2017 E&O Study. However, these projects are still being studied, and future design and construction is subject to long-term funding availability.

Air quality impacts of the Backcountry Reservoir and Pump Station Project were evaluated against thresholds designed to gauge an individual project’s cumulative impacts and were determined to be less than significant. All other environmental resource impacts were also identified as having less than significant impacts. The incremental impact of the Backcountry Reservoir and Pump Station Project, which is relatively small in scale, together with impacts of the other longer-term related SCV Water emergency storage projects located in the five emergency storage zones would be considered less than significant. This is due in part to the fact that the projects would be constructed in widely varying locations, and thus would not affect the same environmental resources and the extended timeframe for development of the projects (e.g., the projects would not occur concurrently with Backcountry Reservoir and Pump Station Project; they would be built out over a period of 30 years and construction impacts would thus not occur at the same time). Many of the potential short-term construction related impacts such as traffic, noise, hazards, hydrology, aesthetics, would occur in individual localized areas within a discrete period of time, and potential for overlapping cumulative impacts among individual projects together with the Backcountry Reservoir and Pump Station Project is minor. Additionally, the related projects would be required to comply with the same or similar regulations and mitigation measures that would reduce the construction-related impacts and other potential impacts such as loss of habitat, cultural resource impacts and greenhouse gas emissions. Therefore, implementation of the Backcountry Reservoir and Pump Station Project along with future related projects would not be expected to result in cumulatively considerable significant impacts.

Mission Village EIR Findings

The Mission Village project would have significant and unavoidable impacts after mitigation that are cumulatively considerable for biological resources (cumulative loss of coastal scrub habitat), visual qualities, air quality, solid and hazardous waste generation, and agricultural resources (loss of prime agricultural land and cumulative conversion of prime agricultural land to non-agricultural uses), as indicated in the Mission Village EIR.

Conclusion: The Backcountry Reservoir and Pump Station Project would not result in an increase in cumulatively considerable impacts or increase the severity of these impacts identified in the Mission Village EIR, and no additional mitigation measures would be necessary, although the impact, related to the Mission Village development, would remain significant and unavoidable, as disclosed in the Mission Village EIR.

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

No New Impact.

Backcountry Reservoir and Pump Station

This environmental evaluation found that the Backcountry Reservoir and Pump Station Project would pose no impact, less than significant impacts or less than significant impacts with implementation of mitigation measures. Consequently, the proposed Project would not result in any environmental effects that would cause substantial adverse effects on human beings directly or indirectly.

Mission Village EIR Findings

The Mission Village project would have significant and unavoidable impacts after mitigation that would cause substantial adverse effects on human beings, either directly or indirectly, related to air quality and visual qualities

Conclusion: The Backcountry Reservoir and Pump Station Project would not result in an increase in adverse effects on human beings or increase the severity of such impacts identified in the Mission Village EIR, and no additional mitigation measures would be necessary, although the impact, related to the Mission Village development, would remain significant and unavoidable, as disclosed in the Mission Village EIR.

Applicable Mitigation Measures from Mission Village EIR and Newhall Ranch Program EIR:

As noted in earlier sections of this document, applicable mitigation measures from the Mission Village EIR and Newhall Ranch Specific Plan Program EIR that would reduce proposed Project impacts to less than significant through SCV Water Implementation Actions include:

- Aesthetics: SP 4.7-1
- Air Quality: SP 4.10-7
- Biological Resources: SP 4.6-35, SP 4.6-56 ,MV 4.3-5, MV 4.3-7, MV 4.3-15, and MV 4.3-52
- Cultural Resources: SP 4.3-3 and MV 4.20-1
- Geology and Soils: SP 4.3-4, MV 4.1-3, MV 4.1-6, MV 4.1-48, MV 4.1-66, and MV 4.20-1
- Greenhouse Gas Emissions: SP 4.10-7
- Hazards and Hazardous Materials: SP 4.18-3 and MV 4.12-5
- Hydrology and Water Quality: MV 4.2-8
- Noise: SP 4.9-1 and MV 4.6-1
- Transportation: MV 4.5-7
- Tribal Cultural Resources: SP 4.3-3 and MV 4.20-1
- Wildfire: SP 4.18-3 and MV 4.12-5

New Mitigation Measures:

None needed.

6. REFERENCES

California Department of Conservation (CDOC). N.d. Earthquake Zones of Required Investigation (interactive web map). Accessed September 3, 2020. Available online at: <https://maps.conservation.ca.gov/cgs/EQZApp/app/>

California Department of Conservation (CDOC). 2016. California Important Farmland Finder (interactive web map). Accessed September 3, 2020. Available online at: <https://maps.conservation.ca.gov/DLRP/CIFF/>

California Department of Conservation (CDOC). 2019. "The Williamson Act Status Report 2016-17." August. Accessed May 4, 2020. Available online at: https://www.conservation.ca.gov/dlrp/wa/Documents/stats_reports/2018%20WA%20Status%20Report.pdf.

California Department of Forestry and Fire Protection. 2019. State Responsibility Areas for Fire Protection (shapefile). Accessed September 3, 2020. Available online at: <https://www.arcgis.com/home/webmap/viewer.html?layers=5ac1dae3cb2544629a845d9a19e83991>

California Department of Toxic Substances Control (DTSC). 2022. EnviroStor Database. Accessed November 3, 2022. Available online at: <https://www.envirostor.dtsc.ca.gov/public/map/?myaddress=santa+clarita>

County of Los Angeles. N.d. "Code of Ordinances" Accessed May 14, 2020. Available online at: https://library.municode.com/ca/los_angeles_county/codes/code_of_ordinances?nodeId=TIT12ENPR_CH12.08NOCO.

County of Los Angeles Department of Regional Planning. 2003. "Newhall Ranch Specific Plan Volume I." May 27. Accessed January 8, 2020. Available online at: http://planning.lacounty.gov/assets/upl/data/pd_sp_newhall-ranch.pdf.

County of Los Angeles Department of Regional Planning. 2010. "Draft Mission Village Environmental Impact Report Volume I." October. Accessed February 6, 2020. Available online at: http://planning.lacounty.gov/assets/upl/case/tr_061105_deir-volume1.pdf.

County of Los Angeles Department of Regional Planning. 2010. "Draft Mission Village Environmental Impact Report Volume II." October. Accessed February 6, 2020. Available online at: http://planning.lacounty.gov/assets/upl/case/tr_061105_deir-volume2.pdf.

County of Los Angeles Department of Regional Planning. 2016. "Recirculated Portions of the Mission Village EIR." November. Accessed February 6, 2020. Available online at: http://planning.lacounty.gov/assets/upl/case/tr_061105_deir-volume2.pdf

County of Los Angeles Department of Regional Planning. 2012. "Santa Clarita Valley Area Plan." November. Accessed May 4, 2020. Available online at: http://planning.lacounty.gov/assets/upl/data/pd_santa-clarita-area-plan-2012.pdf.

County of Los Angeles. 2015. "General Plan." October 6. Accessed May 12, 2020. Available online at: http://planning.lacounty.gov/assets/upl/project/gp_final-general-plan.pdf.

County of Los Angeles Department of Regional Planning. 2015. "Unincorporated Los Angeles County Community Climate Action Plan 2020." August. Accessed May 5, 2020. Available online at: http://planning.lacounty.gov/assets/upl/project/ccap_final-august2015.pdf.

- FivePoint Communities. 2022. Phase 1, 2A, 2B-1 & 3B of Development Area 1 Product Exhibit. January 24, 2022.
- Kennedy/Jenks Consultants, et., al. 2015. “Urban Water Management Plan for Santa Clarita Valley”. July 1, 2016. Accessed May 12, 2020. Available online at: https://yourscvwater.com/wp-content/uploads/2018/01/2015-FINAL-Urban-Water-Management-Plan-for-Santa-Clarita-Valley_16JUN2017-1.pdf
- Michael Baker International. 2017. “Emergency and Operational Storage Study.” Final Study – March.
- Michael Baker International. 2018. “Magic Mountain Reservoir Preliminary Design Technical Memorandum.” November.
- Michael Baker International. 2020. “Backcountry Pump Station Conceptual Design Technical Memorandum.” August 17.
- Michael Baker International. 2022a. Memorandum: Backcountry Reservoir Site Analysis. June 22, 2022.
- Michael Baker International. 2022b. Southwest Area Hydraulic Analysis, Backcountry Pump Station, Backcountry Reservoir, and V-9 Turnout Facility (Draft). April 2022.
- Santa Clarita, City of. N.d.a. Fire Zone map. Accessed on September 3, 2020. Available at: <https://www.santa-clarita.com/home/showdocument?id=2320>
- Santa Clarita, City of. N.d.b. Municipal Code Section Chapter 15.46, Construction and Demolition Materials Management.
- Santa Clarita, City of. N.d.c. Municipal Code Section Chapter 11, Noise.
- Santa Clarita, City of. 2009. Community Character & Design Guidelines. March 2009. Accessed on September 3, 2020. Available at: <https://www.codepublishing.com/CA/SantaClarita/html/SantaClaritaGP/SantaClaritaGP.html>
- Santa Clarita, City of. 2010. Draft Program EIR for the City of Santa Clarita’s Proposed One Valley One Vision General Plan. Accessed on September 10, 2020. Available at: <https://www.santa-clarita.com/city-hall/departments/community-development/planning/environmental-impact-reports-completed>
- Santa Clarita, City of. 2011. City of Santa Clarita General Plan. June 2011. Accessed on September 3, 2020. Available at: <https://www.codepublishing.com/CA/SantaClarita/html/SantaClaritaGP/6%20-%20Conservation%20and%20Open%20Space%20Element.pdf>
- Santa Clarita, City of. 2012. City of Santa Clarita Climate Action Plan. August 2012. Accessed on September 8, 2020. Available at: <http://greensantaclarita.com/files/2012/10/APPROVED-CAP-AUGUST-2012.pdf>
- Santa Clarita, City of. 2013. City of Santa Clarita Zoning Overlays Map. July 2013. Accessed on September 3, 2020. Available at: <https://www.santa-clarita.com/home/showdocument?id=7874>
- Santa Clarita, City of. 2016. City of Santa Clarita Zoning Map. November 2016. Accessed on September 3, 2020. Available at: <https://maps.conservation.ca.gov/DLRP/CIFF/>
- South Coast Air Quality Management District (SCAQMD). 2009. Final LST Methodology Document, Appendix C – Mass Rate LST Look-up Tables. Revised October 21, 2009. Accessed on August 17, 2022.

Available online at: <http://www.aqmd.gov/docs/default-source/ceqa/handbook/localized-significance-thresholds/appendix-c-mass-rate-1st-look-up-tables.pdf?sfvrsn=2>.

South Coast Air Quality Management District. 2018. National Ambient Air Quality Standards (NAAQS) and California Ambient Air Quality - Standards (CAAQS) Attainment Status for South Coast Air Basin. Accessed August 17, 2022. Available online at: <http://www.aqmd.gov/docs/default-source/clean-air-plans/air-quality-management-plans/naaqs-caaqs-feb2016.pdf?sfvrsn=14>.

SWCA Environmental Consultants. 2022a. Biological Resources Assessment, Proposed Santa Clarita Valley Water Agency Pump Station Project, Santa Clarita, California. November.

SWCA Environmental Consultants. 2022b. Cultural Resources Survey for the Santa Clarita Valley Water Agency Pump Station Project Letter Report / SWCA Project No. 62466. November.

SWCA Environmental Consultants. 2022c. Paleontological Resources Assessment for the Santa Clarita Valley Water Agency Backcountry Pump Station Project, City of Santa Clarita, Los Angeles County California. November.

State Water Resources Control Board (SWRCB). 2022. Geotracker Database. Accessed on November 3, 2022. Available online at:
<https://geotracker.waterboards.ca.gov/map/?CMD=runreport&myaddress=santa+clarita>

United States Department of Transportation Federal Highway Administration. 2006. "Construction Noise Handbook." August. Accessed May 11, 2020. Available online at
https://www.fhwa.dot.gov/environment/noise/construction_noise/handbook/handbook09.cfm.

**APPENDIX A: AIR QUALITY AND GREENHOUSE GAS EMISSIONS
MODELING ANALYSES FOR BACKCOUNTRY
RESERVOIR AND PUMP STATION PROJECT**

Modeling Analysis of Air Quality

The Backcountry Reservoir and Pump Station Project (including the V-9 Turnout Facility and distribution pipelines) would result in emissions of criteria pollutants¹ during construction. Emissions of construction air pollutant emissions were estimated using the California Emissions Estimator Model (CalEEMod) version 2022.1. Because the Backcountry Reservoir and Pump Station are located at different sites, they were modeled in separate instances in CalEEMod. The maximum daily emissions for each component (i.e., reservoir and pump station) were then added to provide an overall estimate of total Project emissions. Information about the proposed Project, including construction schedule and duration, construction equipment, vehicle trips, material export, and construction best management practices, were obtained from the Project Description of the Environmental Evaluation. Any information necessary to complete the modeling that was not provided in the Project Description was based on CalEEMod model default values (e.g., worker trip length, vehicle emissions factors). The proposed Project's construction air pollutant emissions were compared to the South Coast Air Quality Management District's (SCAQMD) significance thresholds (SCAQMD, 2019) to determine the proposed Project's impact under CEQA. The results of the emissions modeling are presented in the following table.

Table 1: Construction Mass Daily Emissions (lbs/day)

Pollutant	Backcountry Reservoir	Backcountry Pump Station and V-9 Turnout Facility	Proposed Project Total	SCAQMD Significance Threshold	Exceeds Threshold?
NO _x	7	16	23	100	No
VOC	3	8	11	75	No
PM ₁₀	<1	3	4	150	No
PM _{2.5}	<1	2	2	55	No
CO	8	15	23	550	No
SO _x	<1	<1	<1	150	No

Emissions of operational air pollutants were also modeled using CalEEMod version 2022.1 and compared to the SCAQMD operational significance thresholds. The proposed Project would result in emissions of pollutants associated with operations and maintenance vehicle trips (mobile sources), and landscaping and other ongoing maintenance activities at the site (area sources). The proposed Project would consume electricity for lighting purposes. Criteria pollutant emissions from electricity are regulated at the power plants through stationary source permitting with the US Environmental Protection Agency (US EPA) and the California Air Resources Board (CARB). CalEEMod does not attribute criteria pollutant emissions from electricity use to individual projects. The results of the emissions modeling are presented in the following table.

¹ Criteria pollutants, as defined by the US EPA, include nitrogen oxides (NO_x); photochemical oxidants, including ozone, of which volatile organic compounds (VOC) are a precursor; respirable Particulate Matter (PM₁₀), fine particulate matter (PM_{2.5}), carbon monoxide (CO), and sulfur oxides (SO_x).

Table 2: Operational Mass Daily Emissions (lbs/day)

Pollutant	Backcountry Reservoir	Backcountry Pump Station and V-9 Turnout Facility	Proposed Project Total	SCAQMD Significance Threshold	Exceeds Threshold?
NO _x	<1	<1	<1	55	No
VOC	1	<1	2	55	No
PM ₁₀	<1	<1	<1	150	No
PM _{2.5}	<1	<1	<1	55	No
CO	2	<1	2	550	No
SO _x	<1	<1	<1	150	No

Overall, emissions of criteria air pollutants from both construction and operations would be less than the SCAQMD significance thresholds. Therefore, impacts would be less than significant, and no mitigation would be required.

Modeling Analysis of Greenhouse Gas Emissions

The Backcountry Reservoir and Pump Station Project would result in emissions of Greenhouse Gases (GHG) during both construction and operation. GHG emissions were estimated using the California Emissions Estimator Model (CalEEMod) version 2022.1. The results are presented in terms of metric tons of carbon dioxide equivalent (MT CO₂e), which is a unit of measurement that encompasses the primary anthropogenic greenhouse gases Carbon Dioxide (CO₂), Methane (CH₄), and Nitrous Oxide (N₂O). Construction information about the proposed Project, including the construction schedule and duration, construction equipment, vehicle trips, material export, and construction best management practices, were obtained from the Project Description of the Environmental Evaluation. Operational information about the proposed Project, including operations and maintenance trips, energy consumption, were also obtained from the Project Description. Any information necessary to complete the modeling that was not provided in the Project Description was based on CalEEMod model default values (e.g., worker trip length, vehicle emissions factors). The proposed Project's construction and operations GHG emissions are presented in the following table. Per SCAQMD guidance (SCAQMD, 2008), construction emissions are amortized over the life of the proposed Project, defined as 30 years, and added to the operational emissions.

Table 3: Annual Greenhouse Gas Emissions (MT CO₂e/year)

Source	Backcountry Reservoir Total Annual GHG	Backcountry Pump Station Total Annual GHG	Proposed Project Total Annual GHG
Construction – 2024	64	107	171
Construction – 2025	189	173	362
Total Annual Operational GHG	2	143	145
30-year amortized construction emissions	8	9	18
Annual GHG including 30-year amortized construction emissions	11	152	163

References:

South Coast Air Quality Management District. 2008. "Interim CEQA GHG Significance Threshold for Stationary Sources, Rules and Plans." December 5. Accessed February 13, 2020. Available online at: [http://www.aqmd.gov/docs/default-source/ceqa/handbook/greenhouse-gases-\(ghg\)-ceqa-significance-thresholds/ghgboardsynopsis.pdf?sfvrsn=2](http://www.aqmd.gov/docs/default-source/ceqa/handbook/greenhouse-gases-(ghg)-ceqa-significance-thresholds/ghgboardsynopsis.pdf?sfvrsn=2).

South Coast Air Quality Management District. 2019. "South Coast AQMD Air Quality Significance Thresholds." April. Accessed February 13, 2020. Available online at: <http://www.aqmd.gov/docs/default-source/ceqa/handbook/scaqmd-air-quality-significance-thresholds.pdf>.

**APPENDIX B: AIR QUALITY AND GREENHOUSE GAS EMISSIONS
MODEL OUTPUT DATA FOR BACKCOUNTRY
RESERVOIR AND PUMP STATION PROJECT**

**APPENDIX C: BIOLOGICAL RESOURCES ASSESSMENT FOR
BACKCOUNTRY PUMP STATION**

**APPENDIX D: CULTURAL RESOURCES ASSESSMENT FOR
BACKCOUNTRY PUMP STATION**

**APPENDIX E: PALEONTOLOGICAL RESOURCES ASSESSMENT
FOR BACKCOUNTRY PUMP STATION**

**APPENDIX A: AIR QUALITY AND GREENHOUSE GAS EMISSIONS
MODELING ANALYSES FOR BACKCOUNTRY
RESERVOIR AND PUMP STATION PROJECT**

Modeling Analysis of Air Quality

The Backcountry Reservoir and Pump Station Project (including the V-9 Turnout Facility and distribution pipelines) would result in emissions of criteria pollutants¹ during construction. Emissions of construction air pollutant emissions were estimated using the California Emissions Estimator Model (CalEEMod) version 2022.1. Because the Backcountry Reservoir and Pump Station are located at different sites, they were modeled in separate instances in CalEEMod. The maximum daily emissions for each component (i.e., reservoir and pump station) were then added to provide an overall estimate of total Project emissions. Information about the proposed Project, including construction schedule and duration, construction equipment, vehicle trips, material export, and construction best management practices, were obtained from the Project Description of the Environmental Evaluation. Any information necessary to complete the modeling that was not provided in the Project Description was based on CalEEMod model default values (e.g., worker trip length, vehicle emissions factors). The proposed Project's construction air pollutant emissions were compared to the South Coast Air Quality Management District's (SCAQMD) significance thresholds (SCAQMD, 2019) to determine the proposed Project's impact under CEQA. The results of the emissions modeling are presented in the following table.

Table 1: Construction Mass Daily Emissions (lbs/day)

Pollutant	Backcountry Reservoir	Backcountry Pump Station and V-9 Turnout Facility	Proposed Project Total	SCAQMD Significance Threshold	Exceeds Threshold?
NO _x	7	16	23	100	No
VOC	3	8	11	75	No
PM ₁₀	<1	3	4	150	No
PM _{2.5}	<1	2	2	55	No
CO	8	15	23	550	No
SO _x	<1	<1	<1	150	No

Emissions of operational air pollutants were also modeled using CalEEMod version 2022.1 and compared to the SCAQMD operational significance thresholds. The proposed Project would result in emissions of pollutants associated with operations and maintenance vehicle trips (mobile sources), and landscaping and other ongoing maintenance activities at the site (area sources). The proposed Project would consume electricity for lighting purposes. Criteria pollutant emissions from electricity are regulated at the power plants through stationary source permitting with the US Environmental Protection Agency (US EPA) and the California Air Resources Board (CARB). CalEEMod does not attribute criteria pollutant emissions from electricity use to individual projects. The results of the emissions modeling are presented in the following table.

¹ Criteria pollutants, as defined by the US EPA, include nitrogen oxides (NO_x); photochemical oxidants, including ozone, of which volatile organic compounds (VOC) are a precursor; respirable Particulate Matter (PM₁₀), fine particulate matter (PM_{2.5}), carbon monoxide (CO), and sulfur oxides (SO_x).

Table 2: Operational Mass Daily Emissions (lbs/day)

Pollutant	Backcountry Reservoir	Backcountry Pump Station and V-9 Turnout Facility	Proposed Project Total	SCAQMD Significance Threshold	Exceeds Threshold?
NO _x	<1	<1	<1	55	No
VOC	1	<1	2	55	No
PM ₁₀	<1	<1	<1	150	No
PM _{2.5}	<1	<1	<1	55	No
CO	2	<1	2	550	No
SO _x	<1	<1	<1	150	No

Overall, emissions of criteria air pollutants from both construction and operations would be less than the SCAQMD significance thresholds. Therefore, impacts would be less than significant, and no mitigation would be required.

Modeling Analysis of Greenhouse Gas Emissions

The Backcountry Reservoir and Pump Station Project would result in emissions of Greenhouse Gases (GHG) during both construction and operation. GHG emissions were estimated using the California Emissions Estimator Model (CalEEMod) version 2022.1. The results are presented in terms of metric tons of carbon dioxide equivalent (MT CO₂e), which is a unit of measurement that encompasses the primary anthropogenic greenhouse gases Carbon Dioxide (CO₂), Methane (CH₄), and Nitrous Oxide (N₂O). Construction information about the proposed Project, including the construction schedule and duration, construction equipment, vehicle trips, material export, and construction best management practices, were obtained from the Project Description of the Environmental Evaluation. Operational information about the proposed Project, including operations and maintenance trips, energy consumption, were also obtained from the Project Description. Any information necessary to complete the modeling that was not provided in the Project Description was based on CalEEMod model default values (e.g., worker trip length, vehicle emissions factors). The proposed Project's construction and operations GHG emissions are presented in the following table. Per SCAQMD guidance (SCAQMD, 2008), construction emissions are amortized over the life of the proposed Project, defined as 30 years, and added to the operational emissions.

Table 3: Annual Greenhouse Gas Emissions (MT CO₂e/year)

Source	Backcountry Reservoir Total Annual GHG	Backcountry Pump Station Total Annual GHG	Proposed Project Total Annual GHG
Construction – 2024	64	107	171
Construction – 2025	189	173	362
Total Annual Operational GHG	2	143	145
30-year amortized construction emissions	8	9	18
Annual GHG including 30-year amortized construction emissions	11	152	163

References:

South Coast Air Quality Management District. 2008. "Interim CEQA GHG Significance Threshold for Stationary Sources, Rules and Plans." December 5. Accessed February 13, 2020. Available online at: [http://www.aqmd.gov/docs/default-source/ceqa/handbook/greenhouse-gases-\(ghg\)-ceqa-significance-thresholds/ghgboardsynopsis.pdf?sfvrsn=2](http://www.aqmd.gov/docs/default-source/ceqa/handbook/greenhouse-gases-(ghg)-ceqa-significance-thresholds/ghgboardsynopsis.pdf?sfvrsn=2).

South Coast Air Quality Management District. 2019. "South Coast AQMD Air Quality Significance Thresholds." April. Accessed February 13, 2020. Available online at: <http://www.aqmd.gov/docs/default-source/ceqa/handbook/scaqmd-air-quality-significance-thresholds.pdf>.

**APPENDIX B: AIR QUALITY AND GREENHOUSE GAS EMISSIONS
MODEL OUTPUT DATA FOR BACKCOUNTRY
RESERVOIR AND PUMP STATION PROJECT**

SCV Water Backcountry Reservoir Detailed Report

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Data Field	Value
Project Name	SCV Water Backcountry Reservoir
Lead Agency	Santa Clarita Valley Water District
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	2.50
Precipitation (days)	16.0
Location	34.41320226884845, -118.60786516203589
County	Los Angeles-South Coast
City	Unincorporated
Air District	South Coast AQMD
Air Basin	South Coast
TAZ	3615
EDFZ	7
Electric Utility	Southern California Edison
Gas Utility	Southern California Gas

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
Refrigerated Warehouse-No Rail	89.0	1000sqft	2.04	48,000	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.	0.96	2.57	6.71	7.81	0.02	0.24	0.39	0.55	0.21	0.08	0.27	—	1,853	1,853	0.11	0.12	1.85	1,875
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	1.01	2.61	7.15	7.81	0.02	0.26	0.39	0.55	0.24	0.08	0.30	—	1,854	1,854	0.11	0.12	0.05	1,876
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.59	1.54	4.13	4.77	0.01	0.15	0.14	0.28	0.13	0.03	0.17	—	1,127	1,127	0.05	0.04	0.38	1,141
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.11	0.28	0.75	0.87	< 0.005	0.03	0.02	0.05	0.02	0.01	0.03	—	187	187	0.01	0.01	0.06	189
Exceeds (Daily Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Threshold	—	75.0	100	550	150	—	—	150	—	—	55.0	—	—	—	—	—	—	—
Unmit.	—	No	No	No	No	—	—	No	—	—	No	—	—	—	—	—	—	—
Exceeds (Average Daily)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Threshold	—	75.0	100	550	150	—	—	150	—	—	55.0	—	—	—	—	—	—
Unmit.	—	No	No	No	No	—	—	No	—	—	No	—	—	—	—	—	—
Exceeds (Annual)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Threshold	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	—	—	—	—	Yes	—	—	—	—	—	—	—	—	—	—	—	—

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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2024	0.62	0.46	4.97	5.61	0.01	0.16	0.39	0.55	0.15	0.08	0.23	—	1,404	1,404	0.11	0.12	1.85	1,444
2025	0.96	2.57	6.71	7.81	0.02	0.24	0.22	0.46	0.21	0.06	0.27	—	1,853	1,853	0.08	0.06	1.46	1,875
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2024	1.01	2.61	7.15	7.81	0.02	0.26	0.39	0.55	0.24	0.08	0.30	—	1,854	1,854	0.11	0.12	0.05	1,876
2025	0.96	2.57	6.73	7.70	0.02	0.24	0.22	0.46	0.21	0.06	0.27	—	1,846	1,846	0.08	0.06	0.04	1,867
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2024	0.18	0.30	1.40	1.54	< 0.005	0.05	0.08	0.13	0.04	0.02	0.06	—	378	378	0.02	0.02	0.18	386
2025	0.59	1.54	4.13	4.77	0.01	0.15	0.14	0.28	0.13	0.03	0.17	—	1,127	1,127	0.05	0.04	0.38	1,141
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2024	0.03	0.06	0.26	0.28	< 0.005	0.01	0.01	0.02	0.01	< 0.005	0.01	—	62.6	62.6	< 0.005	< 0.005	0.03	63.9
2025	0.11	0.28	0.75	0.87	< 0.005	0.03	0.02	0.05	0.02	0.01	0.03	—	187	187	0.01	0.01	0.06	189

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.	0.37	1.49	0.02	2.11	< 0.005	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	0.00	19.2	19.2	< 0.005	< 0.005	0.02	19.6
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	< 0.005	1.15	< 0.005	0.03	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.00	10.3	10.3	< 0.005	< 0.005	< 0.005	10.4
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.26	1.39	0.01	1.45	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.00	14.3	14.3	< 0.005	< 0.005	0.01	14.6
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.05	0.25	< 0.005	0.26	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.00	2.37	2.37	< 0.005	< 0.005	< 0.005	2.41
Exceeds (Daily Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Threshold	—	55.0	55.0	550	150	—	—	150	—	—	55.0	—	—	—	—	—	—	—
Unmit.	—	No	No	No	No	—	—	No	—	—	No	—	—	—	—	—	—	—
Exceeds (Average Daily)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Threshold	—	55.0	55.0	550	150	—	—	150	—	—	55.0	—	—	—	—	—	—	—
Unmit.	—	No	No	No	No	—	—	No	—	—	No	—	—	—	—	—	—	—

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	< 0.005	< 0.005	< 0.005	0.03	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	7.15	7.15	< 0.005	< 0.005	0.02	7.26
Area	0.37	1.49	0.02	2.09	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	8.58	8.58	< 0.005	< 0.005	—	8.84
Energy	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	3.46	3.46	< 0.005	< 0.005	—	3.48
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
Total	0.37	1.49	0.02	2.11	< 0.005	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	0.00	19.2	19.2	< 0.005	< 0.005	0.02	19.6
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	< 0.005	< 0.005	< 0.005	0.03	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	6.85	6.85	< 0.005	< 0.005	< 0.005	6.94
Area	—	1.15	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Energy	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	3.46	3.46	< 0.005	< 0.005	—	3.48
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
Total	< 0.005	1.15	< 0.005	0.03	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.00	10.3	10.3	< 0.005	< 0.005	< 0.005	10.4
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	< 0.005	< 0.005	< 0.005	0.02	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	4.95	4.95	< 0.005	< 0.005	0.01	5.02
Area	0.25	1.38	0.01	1.43	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	5.88	5.88	< 0.005	< 0.005	—	6.05
Energy	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	3.46	3.46	< 0.005	< 0.005	—	3.48
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
Total	0.26	1.39	0.01	1.45	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.00	14.3	14.3	< 0.005	< 0.005	0.01	14.6

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.82	0.82	< 0.005	< 0.005	< 0.005	0.83
Area	0.05	0.25	< 0.005	0.26	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.97	0.97	< 0.005	< 0.005	—	1.00
Energy	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.57	0.57	< 0.005	< 0.005	—	0.58
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
Total	0.05	0.25	< 0.005	0.26	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.00	2.37	2.37	< 0.005	< 0.005	< 0.005	2.41

3. Construction Emissions Details

3.1. Grading (2024) - 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	0.43	0.36	3.20	3.82	0.01	0.15	—	0.15	0.14	—	0.14	—	578	578	0.02	< 0.005	—	580
Dust From Material Movement	—	—	—	—	—	—	0.12	0.12	—	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
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.43	0.36	3.20	3.82	0.01	0.15	—	0.15	0.14	—	0.14	—	578	578	0.02	< 0.005	—	580

Dust From Material Movement:	—	—	—	—	—	—	0.12	0.12	—	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	0.06	0.05	0.48	0.58	< 0.005	0.02	—	0.02	0.02	—	0.02	—	87.1	87.1	< 0.005	< 0.005	—	87.4
Dust From Material Movement:	—	—	—	—	—	—	0.02	0.02	—	< 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	0.01	0.01	0.09	0.11	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	14.4	14.4	< 0.005	< 0.005	—	14.5
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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.05	0.04	0.05	0.75	0.00	0.00	0.01	0.01	0.00	0.00	0.00	—	141	141	0.01	< 0.005	0.56	143
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	0.14	0.06	1.72	1.03	0.01	0.01	0.04	0.05	0.01	0.01	0.02	—	684	684	0.08	0.11	1.29	721
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Worker	0.05	0.04	0.06	0.64	0.00	0.00	0.01	0.01	0.00	0.00	0.00	—	134	134	0.01	< 0.005	0.01	135
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	0.14	0.05	1.79	1.05	0.01	0.01	0.04	0.05	0.01	0.01	0.02	—	687	687	0.08	0.11	0.03	722
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.10	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	20.5	20.5	< 0.005	< 0.005	0.04	20.7
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	0.02	0.01	0.27	0.16	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	103	103	0.01	0.02	0.08	109
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.02	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	3.39	3.39	< 0.005	< 0.005	0.01	3.43
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	0.05	0.03	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	17.1	17.1	< 0.005	< 0.005	0.01	18.0

3.3. Building Construction (2024) - 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	0.77	0.64	5.75	5.82	0.01	0.23	—	0.23	0.21	—	0.21	—	1,232	1,232	0.05	0.01	—	1,236
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	0.07	0.06	0.52	0.52	< 0.005	0.02	—	0.02	0.02	—	0.02	—	111	111	< 0.005	< 0.005	—	111
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	0.01	0.09	0.10	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	18.4	18.4	< 0.005	< 0.005	—	18.4
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	0.05	0.04	0.06	0.64	0.00	0.00	0.01	0.01	0.00	0.00	0.00	—	134	134	0.01	< 0.005	0.01	135
Vendor	0.03	0.01	0.43	0.21	< 0.005	< 0.005	0.02	0.02	< 0.005	0.01	0.01	—	355	355	0.01	0.05	0.02	370
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	0.01	0.06	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	12.2	12.2	< 0.005	< 0.005	0.02	12.4
Vendor	< 0.005	< 0.005	0.04	0.02	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	32.0	32.0	< 0.005	< 0.005	0.04	33.3
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	0.01	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	2.02	2.02	< 0.005	< 0.005	< 0.005	2.05
Vendor	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	5.29	5.29	< 0.005	< 0.005	0.01	5.52
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

3.5. Building Construction (2025) - Unmitigated

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

Location	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	0.73	0.61	5.39	5.78	0.01	0.20	—	0.20	0.19	—	0.19	—	1,232	1,232	0.05	0.01	—	1,236
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	0.73	0.61	5.39	5.78	0.01	0.20	—	0.20	0.19	—	0.19	—	1,232	1,232	0.05	0.01	—	1,236
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	0.43	0.36	3.20	3.44	0.01	0.12	—	0.12	0.11	—	0.11	—	733	733	0.03	0.01	—	735
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	0.08	0.07	0.58	0.63	< 0.005	0.02	—	0.02	0.02	—	0.02	—	121	121	< 0.005	< 0.005	—	122
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	0.04	0.04	0.70	0.00	0.00	0.01	0.01	0.00	0.00	0.00	—	138	138	0.01	< 0.005	0.51	140

Vendor	0.03	0.01	0.40	0.19	< 0.005	< 0.005	0.02	0.02	< 0.005	0.01	0.01	—	349	349	0.01	0.05	0.96	365
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	0.04	0.05	0.59	0.00	0.00	0.01	0.01	0.00	0.00	0.00	—	131	131	0.01	< 0.005	0.01	133
Vendor	0.02	0.01	0.41	0.20	< 0.005	< 0.005	0.02	0.02	< 0.005	0.01	0.01	—	349	349	0.01	0.05	0.02	364
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	0.03	0.03	0.03	0.37	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	79.1	79.1	< 0.005	< 0.005	0.13	80.2
Vendor	0.01	0.01	0.25	0.12	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	0.01	—	208	208	0.01	0.03	0.25	217
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	0.01	< 0.005	0.01	0.07	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	13.1	13.1	< 0.005	< 0.005	0.02	13.3
Vendor	< 0.005	< 0.005	0.05	0.02	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	34.4	34.4	< 0.005	< 0.005	0.04	35.9
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 (2025) - 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	0.59	0.49	4.34	5.62	0.01	0.21	—	0.21	0.19	—	0.19	—	867	867	0.04	0.01	—	870

Paving	—	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	0.02	0.01	0.12	0.15	< 0.005	0.01	—	0.01	0.01	—	0.01	—	23.8	23.8	< 0.005	< 0.005	—	23.8
Paving	—	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	< 0.005	< 0.005	0.02	0.03	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	3.93	3.93	< 0.005	< 0.005	—	3.95
Paving	—	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	0.05	0.04	0.05	0.59	0.00	0.00	0.01	0.01	0.00	0.00	0.00	—	131	131	0.01	< 0.005	0.01	133
Vendor	< 0.005	< 0.005	0.04	0.02	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	31.7	31.7	< 0.005	< 0.005	< 0.005	33.1
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.02	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	3.64	3.64	< 0.005	< 0.005	0.01	3.69
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.87	0.87	< 0.005	< 0.005	< 0.005	0.91
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	0.00	0.00	—	0.60	0.60	< 0.005	< 0.005	< 0.005	0.61
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.14	0.14	< 0.005	< 0.005	< 0.005	0.15
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. Architectural Coating (2024) - 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	0.17	0.14	0.91	1.15	< 0.005	0.03	—	0.03	0.03	—	0.03	—	134	134	0.01	< 0.005	—	134
Architectural Coatings	—	1.78	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
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	0.08	0.10	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	12.0	12.0	< 0.005	< 0.005	—	12.1
Architectural Coatings	—	0.16	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
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	0.02	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	1.99	1.99	< 0.005	< 0.005	—	2.00
Architectural Coatings	—	0.03	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
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

3.11. Architectural Coating (2025) - Unmitigated

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

Location	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	0.15	0.13	0.88	1.14	< 0.005	0.03	—	0.03	0.03	—	0.03	—	134	134	0.01	< 0.005	—	134
Architectural Coatings	—	1.78	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
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	0.15	0.13	0.88	1.14	< 0.005	0.03	—	0.03	0.03	—	0.03	—	134	134	0.01	< 0.005	—	134
Architectural Coatings	—	1.78	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
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	0.09	0.08	0.52	0.68	< 0.005	0.02	—	0.02	0.02	—	0.02	—	79.4	79.4	< 0.005	< 0.005	—	79.7
Architectural Coatings	—	1.06	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
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	0.02	0.01	0.10	0.12	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	13.2	13.2	< 0.005	< 0.005	—	13.2

Architectural Coatings	—	0.19	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
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

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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Refrigerated Warehouse-No Rail	< 0.005	< 0.005	< 0.005	0.03	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	7.15	7.15	< 0.005	< 0.005	0.02	7.26
Total	< 0.005	< 0.005	< 0.005	0.03	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	7.15	7.15	< 0.005	< 0.005	0.02	7.26
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Refrigerated Warehouse-No Rail	< 0.005	< 0.005	< 0.005	0.03	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	6.85	6.85	< 0.005	< 0.005	< 0.005	6.94
Total	< 0.005	< 0.005	< 0.005	0.03	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	6.85	6.85	< 0.005	< 0.005	< 0.005	6.94
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Refrigerated Warehouse-No Rail	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.82	0.82	< 0.005	< 0.005	< 0.005	0.83
Total	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.82	0.82	< 0.005	< 0.005	< 0.005	0.83

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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Refrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	3.46	3.46	< 0.005	< 0.005	—	3.48	
Total	—	—	—	—	—	—	—	—	—	—	—	—	3.46	3.46	< 0.005	< 0.005	—	3.48	
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Refrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	3.46	3.46	< 0.005	< 0.005	—	3.48	
Total	—	—	—	—	—	—	—	—	—	—	—	—	3.46	3.46	< 0.005	< 0.005	—	3.48	
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Refrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	0.57	0.57	< 0.005	< 0.005	—	0.58	
Total	—	—	—	—	—	—	—	—	—	—	—	—	0.57	0.57	< 0.005	< 0.005	—	0.58	

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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Refrigerated Warehouse-No Rail	0.00	0.00	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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Refrigerated Warehouse-No Rail	0.00	0.00	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	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Refrigerated Warehouse-No Rail	0.00	0.00	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

4.3.2. 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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	1.90	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	—	1.03	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.37	0.34	0.02	2.09	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	8.58	8.58	< 0.005	< 0.005	—	8.84
Total	0.37	3.27	0.02	2.09	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	8.58	8.58	< 0.005	< 0.005	—	8.84
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	3.68	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	—	1.03	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	4.71	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	0.24	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	—	0.19	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.05	0.04	< 0.005	0.26	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.97	0.97	< 0.005	< 0.005	—	1.00
Total	0.05	0.48	< 0.005	0.26	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.97	0.97	< 0.005	< 0.005	—	1.00

4.4. Water Emissions by Land Use

4.4.2. 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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Refrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Refrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	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	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Refrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	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

4.5.2. 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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Refrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Refrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	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	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Refrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

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
Grading	Grading	9/2/2024	11/15/2024	5.00	55.0	—
Building Construction	Building Construction	11/16/2024	10/31/2025	5.00	250	—
Paving	Paving	11/1/2025	11/14/2025	5.00	10.0	—
Architectural Coating	Architectural Coating	11/16/2024	10/31/2025	5.00	250	—

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
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Grading	Graders	Diesel	Average	1.00	4.00	148	0.41
Grading	Tractors/Loaders/Backhoes	Diesel	Average	1.00	4.00	84.0	0.37
Building Construction	Cranes	Diesel	Average	1.00	6.00	367	0.29
Building Construction	Tractors/Loaders/Backhoes	Diesel	Average	1.00	6.00	84.0	0.37
Building Construction	Welders	Diesel	Average	1.00	8.00	46.0	0.45
Paving	Tractors/Loaders/Backhoes	Diesel	Average	1.00	8.00	84.0	0.37
Paving	Pavers	Diesel	Average	1.00	4.00	81.0	0.42
Paving	Rollers	Diesel	Average	1.00	4.00	36.0	0.38
Paving	Cement and Mortar Mixers	Diesel	Average	1.00	8.00	10.0	0.56
Architectural Coating	Air Compressors	Diesel	Average	1.00	6.00	37.0	0.48
Grading	Excavators	Diesel	Average	1.00	8.00	36.0	0.38
Building Construction	Dumpers/Tenders	Diesel	Average	1.00	1.00	16.0	0.38
Paving	Dumpers/Tenders	Diesel	Average	1.00	1.00	16.0	0.38
Grading	Dumpers/Tenders	Diesel	Average	1.00	1.00	16.0	0.38
Building Construction	Cement and Mortar Mixers	Diesel	Average	1.00	8.00	10.0	0.56
Paving	Graders	Diesel	Average	1.00	4.00	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
Grading	—	—	—	—
Grading	Worker	10.0	18.5	LDA,LDT1,LDT2
Grading	Vendor	—	10.2	HHDT,MHDT

Grading	Hauling	79.5	2.00	HHDT
Grading	Onsite truck	—	—	HHDT
Building Construction	—	—	—	—
Building Construction	Worker	10.0	18.5	LDA,LDT1,LDT2
Building Construction	Vendor	11.0	10.2	HHDT,MHDT
Building Construction	Hauling	0.00	20.0	HHDT
Building Construction	Onsite truck	—	—	HHDT
Paving	—	—	—	—
Paving	Worker	10.0	18.5	LDA,LDT1,LDT2
Paving	Vendor	1.00	10.2	HHDT,MHDT
Paving	Hauling	0.00	20.0	HHDT
Paving	Onsite truck	—	—	HHDT
Architectural Coating	—	—	—	—
Architectural Coating	Worker	0.00	18.5	LDA,LDT1,LDT2
Architectural Coating	Vendor	—	10.2	HHDT,MHDT
Architectural Coating	Hauling	0.00	20.0	HHDT
Architectural Coating	Onsite truck	—	—	HHDT

5.4. Vehicles

5.4.1. Construction Vehicle Control Strategies

Control Strategies Applied	PM10 Reduction	PM2.5 Reduction
Water unpaved roads twice daily	55%	55%
Limit vehicle speeds on unpaved roads to 25 mph	44%	44%
Sweep paved roads once per month	9%	9%

5.5. Architectural Coatings

Phase Name	Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
Architectural Coating	0.00	0.00	72,000	24,000	—

5.6. Dust Mitigation

5.6.1. Construction Earthmoving Activities

Phase Name	Material Imported (Cubic Yards)	Material Exported (Cubic Yards)	Acres Graded (acres)	Material Demolished (sq. ft.)	Acres Paved (acres)
Grading	0.00	35,000	27.5	0.00	—
Paving	0.00	0.00	0.00	0.00	0.00

5.6.2. Construction Earthmoving Control Strategies

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

5.7. Construction Paving

Land Use	Area Paved (acres)	% Asphalt
Refrigerated Warehouse-No Rail	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
2024	0.00	532	0.03	< 0.005
2025	0.00	532	0.03	< 0.005

5.9. Operational Mobile Sources

5.9.1. Unmitigated

Land Use Type	Trips/Weekday	Trips/Saturday	Trips/Sunday	Trips/Year	VMT/Weekday	VMT/Saturday	VMT/Sunday	VMT/Year
Refrigerated Warehouse-No Rail	0.89	0.00	0.00	232	9.28	0.00	0.00	2,420

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	72,000	24,000	—

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)
Refrigerated Warehouse-No Rail	3,650	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)
Refrigerated Warehouse-No Rail	0.00	0.00

5.13. Operational Waste Generation

5.13.1. Unmitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
Refrigerated Warehouse-No Rail	0.00	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
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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
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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
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5.16.2. Process Boilers

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

5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres
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5.18.2. Sequestration

5.18.2.1. Unmitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)
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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	22.9	annual days of extreme heat
Extreme Precipitation	5.90	annual days with precipitation above 20 mm
Sea Level Rise	0.00	meters of inundation depth
Wildfire	13.6	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 $\frac{3}{4}$ 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 (2040–2059 average under RCP 8.5), and consider different increments of sea level rise coupled with extreme storm events. Users may select from four model simulations to view the range in potential inundation depth 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 50 meters (m) by 50 m, or about 164 feet (ft) by 164 ft.

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	N/A	N/A	N/A	N/A
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	N/A	N/A	N/A	N/A
Wildfire	N/A	N/A	N/A	N/A
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack	N/A	N/A	N/A	N/A
Air Quality	N/A	N/A	N/A	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	N/A	N/A	N/A	N/A
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	N/A	N/A	N/A	N/A
Wildfire	N/A	N/A	N/A	N/A
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack	N/A	N/A	N/A	N/A
Air Quality	N/A	N/A	N/A	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 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	84.6

AQ-PM	45.1
AQ-DPM	24.4
Drinking Water	70.8
Lead Risk Housing	0.10
Pesticides	31.3
Toxic Releases	34.9
Traffic	88.0
Effect Indicators	—
CleanUp Sites	0.00
Groundwater	70.3
Haz Waste Facilities/Generators	88.9
Impaired Water Bodies	66.7
Solid Waste	97.3
Sensitive Population	—
Asthma	4.31
Cardio-vascular	10.1
Low Birth Weights	61.9
Socioeconomic Factor Indicators	—
Education	9.29
Housing	23.4
Linguistic	37.7
Poverty	5.09
Unemployment	21.1

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
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Economic	—
Above Poverty	93.67380983
Employed	76.78686
Education	—
Bachelor's or higher	84.97369434
High school enrollment	21.05735917
Preschool enrollment	58.19325035
Transportation	—
Auto Access	98.98626973
Active commuting	34.73630181
Social	—
2-parent households	74.38727063
Voting	67.39381496
Neighborhood	—
Alcohol availability	92.46759913
Park access	36.76376235
Retail density	47.77364301
Supermarket access	23.22597203
Tree canopy	62.74862056
Housing	—
Homeownership	68.57436161
Housing habitability	81.30373412
Low-inc homeowner severe housing cost burden	60.46451944
Low-inc renter severe housing cost burden	67.75311177
Uncrowded housing	74.48992686
Health Outcomes	—
Insured adults	86.30822533

Arthritis	0.0
Asthma ER Admissions	98.4
High Blood Pressure	0.0
Cancer (excluding skin)	0.0
Asthma	0.0
Coronary Heart Disease	0.0
Chronic Obstructive Pulmonary Disease	0.0
Diagnosed Diabetes	0.0
Life Expectancy at Birth	71.8
Cognitively Disabled	87.2
Physically Disabled	81.6
Heart Attack ER Admissions	83.3
Mental Health Not Good	0.0
Chronic Kidney Disease	0.0
Obesity	0.0
Pedestrian Injuries	19.6
Physical Health Not Good	0.0
Stroke	0.0
Health Risk Behaviors	—
Binge Drinking	0.0
Current Smoker	0.0
No Leisure Time for Physical Activity	0.0
Climate Change Exposures	—
Wildfire Risk	88.1
SLR Inundation Area	0.0
Children	92.2
Elderly	92.1

English Speaking	69.3
Foreign-born	49.0
Outdoor Workers	66.6
Climate Change Adaptive Capacity	—
Impervious Surface Cover	89.1
Traffic Density	75.3
Traffic Access	23.0
Other Indices	—
Hardship	14.5
Other Decision Support	—
2016 Voting	38.9

7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	26.0
Healthy Places Index Score for Project Location (b)	87.0
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 and Equity Evaluation Scorecard not completed.

8. User Changes to Default Data

Screen	Justification
Construction: Construction Phases	Per Project Description.
Construction: Off-Road Equipment	Per project description.
Construction: Trips and VMT	Per project description. No separate worker trips for architectural coating.
Operations: Vehicle Data	Per project description.
Operations: Energy Use	Per project description.
Operations: Water and Waste Water	Per project description
Operations: Solid Waste	Per project description
Land Use	Per project description.
Construction: Dust From Material Movement	Per project description.
Operations: Refrigerants	No refrigerants.

SCV Water Backcountry Pump Station Detailed Report

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5.8. Construction Electricity Consumption and Emissions Factors

5.9. Operational Mobile Sources

5.9.1. Unmitigated

5.10. Operational Area Sources

5.10.1. Hearths

5.10.1.1. Unmitigated

5.10.2. Architectural Coatings

5.10.3. Landscape Equipment

5.11. Operational Energy Consumption

5.11.1. Unmitigated

5.12. Operational Water and Wastewater Consumption

5.12.1. Unmitigated

5.13. Operational Waste Generation

5.13.1. Unmitigated

5.14. Operational Refrigeration and Air Conditioning Equipment

5.14.1. Unmitigated

5.15. Operational Off-Road Equipment

5.15.1. Unmitigated

5.16. Stationary Sources

5.16.1. Emergency Generators and Fire Pumps

5.16.2. Process Boilers

5.17. User Defined

5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

5.18.2. Sequestration

5.18.2.1. Unmitigated

6. Climate Risk Detailed Report

6.1. Climate Risk Summary

6.2. Initial Climate Risk Scores

6.3. Adjusted Climate Risk Scores

6.4. Climate Risk Reduction Measures

7. Health and Equity Details

7.1. CalEnviroScreen 4.0 Scores

7.2. Healthy Places Index Scores

7.3. Overall Health & Equity Scores

7.4. Health & Equity Measures

7.5. Evaluation Scorecard

7.6. Health & Equity Custom Measures

8. User Changes to Default Data

1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	SCV Water Backcountry Pump Station
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	2.50
Precipitation (days)	16.0
Location	34.4248071828404, -118.57632641273652
County	Los Angeles-South Coast
City	Santa Clarita
Air District	South Coast AQMD
Air Basin	South Coast
TAZ	3698
EDFZ	7
Electric Utility	Southern California Edison
Gas Utility	Southern California Gas

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
Refrigerated Warehouse-No Rail	7.00	1000sqft	0.16	7,000	0.00	—	—	Pump Station
Other Asphalt Surfaces	45.0	1000sqft	1.03	0.00	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.	2.06	7.89	15.6	14.7	0.03	0.69	2.71	3.40	0.64	1.34	1.97	—	4,249	4,249	0.20	0.39	5.59	4,376
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	1.24	1.04	9.08	9.42	0.02	0.36	0.77	1.13	0.33	0.09	0.42	—	2,630	2,630	0.11	0.03	0.01	2,642
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.47	0.61	3.32	3.80	0.01	0.13	0.31	0.44	0.12	0.04	0.15	—	1,041	1,041	0.04	0.02	0.09	1,048
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.09	0.11	0.61	0.69	< 0.005	0.02	0.06	0.08	0.02	0.01	0.03	—	172	172	0.01	< 0.005	0.02	173
Exceeds (Daily Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Threshold	—	75.0	100	550	150	—	—	150	—	—	55.0	—	—	—	—	—	—	—
Unmit.	—	No	No	No	No	—	—	No	—	—	No	—	—	—	—	—	—	—
Exceeds (Average Daily)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Threshold	—	75.0	100	550	150	—	—	150	—	—	55.0	—	—	—	—	—	—
Unmit.	—	No	No	No	No	—	—	No	—	—	No	—	—	—	—	—	—
Exceeds (Annual)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Threshold	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	—	—	—	—	—	—	—	—	—	—	Yes	—	—	—	—	—	—

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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2024	2.06	1.73	15.6	14.7	0.03	0.69	2.71	3.40	0.64	1.34	1.97	—	4,249	4,249	0.20	0.39	5.59	4,376
2025	1.19	7.89	8.59	11.1	0.02	0.34	0.77	1.09	0.32	0.09	0.41	—	2,633	2,633	0.12	0.16	2.50	2,645
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2024	1.24	1.04	9.08	9.42	0.02	0.36	0.77	1.13	0.33	0.09	0.42	—	2,630	2,630	0.11	0.03	0.01	2,642
2025	1.19	0.99	8.29	9.32	0.02	0.32	0.77	1.09	0.29	0.09	0.38	—	2,630	2,630	0.11	0.03	0.01	2,641
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2024	0.30	0.25	2.25	2.30	0.01	0.09	0.22	0.31	0.08	0.04	0.13	—	642	642	0.03	0.01	0.06	646
2025	0.47	0.61	3.32	3.80	0.01	0.13	0.31	0.44	0.12	0.04	0.15	—	1,041	1,041	0.04	0.02	0.09	1,048
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2024	0.06	0.05	0.41	0.42	< 0.005	0.02	0.04	0.06	0.02	0.01	0.02	—	106	106	< 0.005	< 0.005	0.01	107
2025	0.09	0.11	0.61	0.69	< 0.005	0.02	0.06	0.08	0.02	0.01	0.03	—	172	172	0.01	< 0.005	0.02	173

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.	0.06	0.23	< 0.005	0.31	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.00	857	857	0.08	0.01	0.01	862
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	< 0.005	0.18	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.00	856	856	0.08	0.01	< 0.005	861
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.04	0.21	< 0.005	0.21	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.00	856	856	0.08	0.01	< 0.005	861
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.01	0.04	< 0.005	0.04	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.00	142	142	0.01	< 0.005	< 0.005	143
Exceeds (Daily Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Threshold	—	55.0	55.0	550	150	—	—	150	—	—	55.0	—	—	—	—	—	—	—
Unmit.	—	No	No	No	No	—	—	No	—	—	No	—	—	—	—	—	—	—
Exceeds (Average Daily)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Threshold	—	55.0	55.0	550	150	—	—	150	—	—	55.0	—	—	—	—	—	—	—
Unmit.	—	No	No	No	No	—	—	No	—	—	No	—	—	—	—	—	—	—

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	< 0.005	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	2.27	2.27	< 0.005	< 0.005	0.01	2.31
Area	0.05	0.23	< 0.005	0.30	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	1.25	1.25	< 0.005	< 0.005	—	1.26
Energy	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	854	854	0.08	0.01	—	859
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
Stationary	0.00	0.00	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	0.06	0.23	< 0.005	0.31	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.00	857	857	0.08	0.01	0.01	862
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	< 0.005	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	2.18	2.18	< 0.005	< 0.005	< 0.005	2.21
Area	—	0.18	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Energy	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	854	854	0.08	0.01	—	859
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
Stationary	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	< 0.005	0.18	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.00	856	856	0.08	0.01	< 0.005	861
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	< 0.005	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	1.57	1.57	< 0.005	< 0.005	< 0.005	1.60
Area	0.04	0.21	< 0.005	0.21	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.86	0.86	< 0.005	< 0.005	—	0.86

Energy	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	854	854	0.08	0.01	—	859
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
Stationary	0.00	0.00	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	0.04	0.21	< 0.005	0.21	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.00	856	856	0.08	0.01	< 0.005	861
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.26	0.26	< 0.005	< 0.005	< 0.005	0.26
Area	0.01	0.04	< 0.005	0.04	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.14	0.14	< 0.005	< 0.005	—	0.14
Energy	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	141	141	0.01	< 0.005	—	142
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
Stationary	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.01	0.04	< 0.005	0.04	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.00	142	142	0.01	< 0.005	< 0.005	143

3. Construction Emissions Details

3.1. Site Preparation (2024) - 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	1.01	0.85	6.94	7.82	0.02	0.32	—	0.32	0.30	—	0.30	—	1,855	1,855	0.08	0.02	—	1,862

Dust From Material Movement:	—	—	—	—	—	—	0.21	0.21	—	0.02	0.02	—	—	—	—	—	—	—
Onsite truck	< 0.005	< 0.005	0.04	0.02	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	10.3	10.3	< 0.005	< 0.005	0.02	10.9
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.08	0.09	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	20.3	20.3	< 0.005	< 0.005	—	20.4
Dust From Material Movement:	—	—	—	—	—	—	< 0.005	< 0.005	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Onsite truck	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.11	0.11	< 0.005	< 0.005	< 0.005	0.12
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.01	0.02	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	3.37	3.37	< 0.005	< 0.005	—	3.38
Dust From Material Movement:	—	—	—	—	—	—	< 0.005	< 0.005	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Onsite truck	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.02	0.02	< 0.005	< 0.005	< 0.005	0.02
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02	0.02	0.02	0.30	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	56.5	56.5	< 0.005	< 0.005	0.22	57.3
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.18	0.05	2.91	1.12	0.02	0.03	0.17	0.20	0.03	0.06	0.09	—	2,327	2,327	0.13	0.37	5.35	2,446

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	0.60	0.60	< 0.005	< 0.005	< 0.005	0.60
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	0.03	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	25.5	25.5	< 0.005	< 0.005	0.03	26.8
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	0.10	0.10	< 0.005	< 0.005	< 0.005	0.10
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	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	4.22	4.22	< 0.005	< 0.005	< 0.005	4.43

3.3. Grading (2024) - 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	2.04	1.72	15.6	14.4	0.03	0.69	—	0.69	0.64	—	0.64	—	2,950	2,950	0.12	0.02	—	2,960
Dust From Material Movement	—	—	—	—	—	—	2.66	2.66	—	1.32	1.32	—	—	—	—	—	—	—
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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.03	0.03	0.26	0.24	< 0.005	0.01	—	0.01	0.01	—	0.01	—	48.5	48.5	< 0.005	< 0.005	—	48.7
Dust From Material Movement	—	—	—	—	—	—	0.04	0.04	—	0.02	0.02	—	—	—	—	—	—	—
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	0.01	0.05	0.04	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	8.03	8.03	< 0.005	< 0.005	—	8.05
Dust From Material Movement	—	—	—	—	—	—	0.01	0.01	—	< 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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02	0.02	0.02	0.30	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	56.5	56.5	< 0.005	< 0.005	0.22	57.3
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	0.89	0.89	< 0.005	< 0.005	< 0.005	0.91
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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	0.00	—	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	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	0.00

3.5. Building Construction (2024) - 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	1.22	1.02	8.98	9.12	0.02	0.36	—	0.36	0.33	—	0.33	—	2,534	2,534	0.10	0.02	—	2,543
Onsite truck	< 0.005	< 0.005	0.04	0.02	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	10.3	10.3	< 0.005	< 0.005	0.02	10.9
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.22	1.02	8.98	9.12	0.02	0.36	—	0.36	0.33	—	0.33	—	2,534	2,534	0.10	0.02	—	2,543
Onsite truck	< 0.005	< 0.005	0.04	0.02	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	10.4	10.4	< 0.005	< 0.005	< 0.005	10.9
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.25	0.21	1.86	1.89	< 0.005	0.07	—	0.07	0.07	—	0.07	—	526	526	0.02	< 0.005	—	527
Onsite truck	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	2.15	2.15	< 0.005	< 0.005	< 0.005	2.26
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	0.05	0.04	0.34	0.35	< 0.005	0.01	—	0.01	0.01	—	0.01	—	87.0	87.0	< 0.005	< 0.005	—	87.3
Onsite truck	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.36	0.36	< 0.005	< 0.005	< 0.005	0.37
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02	0.02	0.02	0.30	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	56.5	56.5	< 0.005	< 0.005	0.22	57.3
Vendor	< 0.005	< 0.005	0.04	0.02	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	32.3	32.3	< 0.005	< 0.005	0.09	33.7
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	0.02	0.02	0.02	0.26	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	53.5	53.5	< 0.005	< 0.005	0.01	54.2
Vendor	< 0.005	< 0.005	0.04	0.02	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	32.3	32.3	< 0.005	< 0.005	< 0.005	33.6
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	0.06	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	11.3	11.3	< 0.005	< 0.005	0.02	11.4
Vendor	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	6.69	6.69	< 0.005	< 0.005	0.01	6.98
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	0.01	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	1.87	1.87	< 0.005	< 0.005	< 0.005	1.89
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	1.11	1.11	< 0.005	< 0.005	< 0.005	1.16
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. Building Construction (2025) - Unmitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
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Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.16	0.98	8.20	9.05	0.02	0.32	—	0.32	0.29	—	0.29	—	2,536	2,536	0.10	0.02	—	2,545
Onsite truck	< 0.005	< 0.005	0.04	0.02	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	10.2	10.2	< 0.005	< 0.005	0.02	10.7
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.16	0.98	8.20	9.05	0.02	0.32	—	0.32	0.29	—	0.29	—	2,536	2,536	0.10	0.02	—	2,545
Onsite truck	< 0.005	< 0.005	0.04	0.02	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	10.2	10.2	< 0.005	< 0.005	< 0.005	10.7
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.41	0.35	2.90	3.20	0.01	0.11	—	0.11	0.10	—	0.10	—	898	898	0.04	0.01	—	901
Onsite truck	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	3.61	3.61	< 0.005	< 0.005	< 0.005	3.79
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.08	0.06	0.53	0.58	< 0.005	0.02	—	0.02	0.02	—	0.02	—	149	149	0.01	< 0.005	—	149
Onsite truck	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.60	0.60	< 0.005	< 0.005	< 0.005	0.63
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02	0.02	0.02	0.28	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	55.3	55.3	< 0.005	< 0.005	0.20	56.1
Vendor	< 0.005	< 0.005	0.04	0.02	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	31.7	31.7	< 0.005	< 0.005	0.09	33.2
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	0.02	0.02	0.02	0.24	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	52.4	52.4	< 0.005	< 0.005	0.01	53.1
Vendor	< 0.005	< 0.005	0.04	0.02	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	31.7	31.7	< 0.005	< 0.005	< 0.005	33.1
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.09	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	18.8	18.8	< 0.005	< 0.005	0.03	19.1
Vendor	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	11.2	11.2	< 0.005	< 0.005	0.01	11.7
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	0.00	0.00	—	3.12	3.12	< 0.005	< 0.005	0.01	3.16
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	1.86	1.86	< 0.005	< 0.005	< 0.005	1.94
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. Paving (2025) - 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	0.93	0.78	7.45	10.1	0.01	0.33	—	0.33	0.31	—	0.31	—	1,528	1,528	0.06	0.01	—	1,534
Paving	—	0.18	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.04	0.03	0.31	0.42	< 0.005	0.01	—	0.01	0.01	—	0.01	—	62.8	62.8	< 0.005	< 0.005	—	63.0
Paving	—	0.01	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.06	0.08	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	10.4	10.4	< 0.005	< 0.005	—	10.4
Paving	—	< 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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04	0.03	0.03	0.56	0.00	0.00	0.01	0.01	0.00	0.00	0.00	—	111	111	< 0.005	< 0.005	0.40	112
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	0.07	0.01	1.11	0.43	0.01	0.01	0.07	0.08	0.01	0.02	0.03	—	901	901	0.05	0.14	2.09	946
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.02	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	4.37	4.37	< 0.005	< 0.005	0.01	4.43
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	0.05	0.02	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	37.0	37.0	< 0.005	0.01	0.04	38.8
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	0.72	0.72	< 0.005	< 0.005	< 0.005	0.73
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	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	6.13	6.13	< 0.005	< 0.005	0.01	6.43

3.11. Architectural Coating (2025) - Unmitigated

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

Location	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	0.15	0.13	0.88	1.14	< 0.005	0.03	—	0.03	0.03	—	0.03	—	134	134	0.01	< 0.005	—	134
Architect ural Coatings	—	7.74	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	< 0.005	< 0.005	0.04	0.02	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	10.2	10.2	< 0.005	< 0.005	0.02	10.7
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.02	0.03	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	3.66	3.66	< 0.005	< 0.005	—	3.67
Architect ural Coatings	—	0.21	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.28	0.28	< 0.005	< 0.005	< 0.005	0.29
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	< 0.005	< 0.005	< 0.005	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.61	0.61	< 0.005	< 0.005	—	0.61
Architectural Coatings	—	0.04	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.05	0.05	< 0.005	< 0.005	< 0.005	0.05
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02	0.02	0.02	0.28	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	55.3	55.3	< 0.005	< 0.005	0.20	56.1
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
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	1.46	1.46	< 0.005	< 0.005	< 0.005	1.48
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	0.00	0.00	—	0.24	0.24	< 0.005	< 0.005	< 0.005	0.24
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

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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Refrigerated Warehouse-No Rail	< 0.005	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	2.27	2.27	< 0.005	< 0.005	0.01	2.31
Other 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	0.00	0.00	0.00
Total	< 0.005	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	2.27	2.27	< 0.005	< 0.005	0.01	2.31
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Refrigerated Warehouse-No Rail	< 0.005	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	2.18	2.18	< 0.005	< 0.005	< 0.005	2.21
Other 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	0.00	0.00	0.00
Total	< 0.005	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	2.18	2.18	< 0.005	< 0.005	< 0.005	2.21
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Refrigerated Warehouse-No Rail	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.26	0.26	< 0.005	< 0.005	< 0.005	0.26

Other 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	0.00	0.00	0.00	0.00
Total	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.26	0.26	< 0.005	< 0.005	< 0.005	0.26

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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Refrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	854	854	0.08	0.01	—	859	
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00	
Total	—	—	—	—	—	—	—	—	—	—	—	—	854	854	0.08	0.01	—	859	
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Refrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	854	854	0.08	0.01	—	859	
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00	
Total	—	—	—	—	—	—	—	—	—	—	—	—	854	854	0.08	0.01	—	859	

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Refrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	141	141	0.01	< 0.005	—	142
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	141	141	0.01	< 0.005	—	142

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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Refrigerated Warehouse-No Rail	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Other 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
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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Refrigerated Warehouse-No Rail	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00

Other 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
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	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Refrigerated Warehouse-No Rail	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Other 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
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

4.3.2. 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	—	0.15	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	0.02	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.05	0.05	< 0.005	0.30	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	1.25	1.25	< 0.005	< 0.005	—	1.26
Total	0.05	0.23	< 0.005	0.30	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	1.25	1.25	< 0.005	< 0.005	—	1.26

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	—	0.15	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	0.02	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	0.18	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	—	0.03	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	< 0.005	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.01	0.01	< 0.005	0.04	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.14	0.14	< 0.005	< 0.005	—	0.14
Total	0.01	0.04	< 0.005	0.04	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.14	0.14	< 0.005	< 0.005	—	0.14

4.4. Water Emissions by Land Use

4.4.2. 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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Refrigerated Warehouse Rail	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Refrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	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	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Refrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	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

4.5.2. 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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Refrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Refrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	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	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Refrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Emergency Generator	0.00	0.00	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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Emergency Generator	0.00	0.00	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	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Emergency Generator	0.00	0.00	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

4.9. 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	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Remove	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
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	9/3/2024	9/6/2024	5.00	4.00	—
Grading	Grading	9/9/2024	9/16/2024	5.00	6.00	—
Building Construction	Building Construction	9/17/2024	6/30/2025	5.00	205	—
Paving	Paving	7/1/2025	7/21/2025	5.00	15.0	—
Architectural Coating	Architectural Coating	7/22/2025	8/4/2025	5.00	10.0	—

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	Graders	Diesel	Average	1.00	8.00	148	0.41
Site Preparation	Tractors/Loaders/Backhoes	Diesel	Average	1.00	8.00	84.0	0.37
Grading	Graders	Diesel	Average	1.00	4.00	148	0.41
Grading	Tractors/Loaders/Backhoes	Diesel	Average	1.00	8.00	84.0	0.37
Building Construction	Cranes	Diesel	Average	1.00	8.00	367	0.29
Building Construction	Forklifts	Diesel	Average	1.00	6.00	82.0	0.20
Building Construction	Tractors/Loaders/Backhoes	Diesel	Average	1.00	8.00	84.0	0.37
Paving	Tractors/Loaders/Backhoes	Diesel	Average	1.00	8.00	84.0	0.37
Paving	Pavers	Diesel	Average	2.00	8.00	81.0	0.42
Paving	Rollers	Diesel	Average	1.00	7.00	36.0	0.38
Paving	Cement and Mortar Mixers	Diesel	Average	1.00	6.00	10.0	0.56
Architectural Coating	Air Compressors	Diesel	Average	1.00	6.00	37.0	0.48
Grading	Off-Highway Trucks	Diesel	Average	1.00	6.00	376	0.38

Building Construction	Off-Highway Trucks	Diesel	Average	1.00	6.00	376	0.38
Site Preparation	Off-Highway Trucks	Diesel	Average	1.00	6.00	376	0.38
Grading	Rubber Tired Dozers	Diesel	Average	1.00	8.00	367	0.40
Building Construction	Excavators	Diesel	Average	1.00	8.00	36.0	0.38
Paving	Excavators	Diesel	Average	1.00	8.00	36.0	0.38
Paving	Paving Equipment	Diesel	Average	1.00	8.00	89.0	0.36

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	4.00	18.5	LDA,LDT1,LDT2
Site Preparation	Vendor	—	10.2	HHDT,MHDT
Site Preparation	Hauling	33.0	20.0	HHDT
Site Preparation	Onsite truck	2.00	1.00	HHDT
Grading	—	—	—	—
Grading	Worker	4.00	18.5	LDA,LDT1,LDT2
Grading	Vendor	—	10.2	HHDT,MHDT
Grading	Hauling	0.00	3.00	HHDT
Grading	Onsite truck	0.00	0.00	HHDT
Building Construction	—	—	—	—
Building Construction	Worker	4.00	18.5	LDA,LDT1,LDT2
Building Construction	Vendor	1.00	10.2	HHDT,MHDT
Building Construction	Hauling	0.00	20.0	HHDT
Building Construction	Onsite truck	2.00	1.00	HHDT
Paving	—	—	—	—

Paving	Worker	8.00	18.5	LDA,LDT1,LDT2
Paving	Vendor	—	10.2	HHDT,MHDT
Paving	Hauling	13.0	20.0	HHDT
Paving	Onsite truck	0.00	1.00	HHDT
Architectural Coating	—	—	—	—
Architectural Coating	Worker	4.00	18.5	LDA,LDT1,LDT2
Architectural Coating	Vendor	—	10.2	HHDT,MHDT
Architectural Coating	Hauling	0.00	20.0	HHDT
Architectural Coating	Onsite truck	2.00	1.00	HHDT

5.4. Vehicles

5.4.1. Construction Vehicle Control Strategies

Control Strategies Applied	PM10 Reduction	PM2.5 Reduction
Water unpaved roads twice daily	55%	55%
Limit vehicle speeds on unpaved roads to 25 mph	44%	44%
Sweep paved roads once per month	9%	9%

5.5. Architectural Coatings

Phase Name	Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
Architectural Coating	0.00	0.00	10,500	3,500	2,700

5.6. Dust Mitigation

5.6.1. Construction Earthmoving Activities

Phase Name	Material Imported (Cubic Yards)	Material Exported (Cubic Yards)	Acres Graded (acres)	Material Demolished (sq. ft.)	Acres Paved (acres)
------------	---------------------------------	---------------------------------	----------------------	-------------------------------	---------------------

Site Preparation	0.00	0.00	2.00	0.00	—
Grading	0.00	0.00	4.50	0.00	—
Paving	0.00	0.00	0.00	0.00	1.03

5.6.2. Construction Earthmoving Control Strategies

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

5.7. Construction Paving

Land Use	Area Paved (acres)	% Asphalt
Refrigerated Warehouse-No Rail	0.00	0%
Other Asphalt Surfaces	1.03	100%

5.8. Construction Electricity Consumption and Emissions Factors

kWh per Year and Emission Factor (lb/MWh)

Year	kWh per Year	CO2	CH4	N2O
2024	0.00	532	0.03	< 0.005
2025	0.00	532	0.03	< 0.005

5.9. Operational Mobile Sources

5.9.1. Unmitigated

Land Use Type	Trips/Weekday	Trips/Saturday	Trips/Sunday	Trips/Year	VMT/Weekday	VMT/Saturday	VMT/Sunday	VMT/Year
Refrigerated Warehouse-No Rail	0.21	0.00	0.00	54.7	2.92	0.00	0.00	760
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

5.10. Operational Area Sources

5.10.1. Hearths

5.10.1.1. Unmitigated

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	11,895	3,965	1,860

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)
Refrigerated Warehouse-No Rail	900,000	346	0.0330	0.0040	0.00
Other Asphalt Surfaces	0.00	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)
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Refrigerated Warehouse-No Rail	0.00	0.00
Other Asphalt Surfaces	0.00	0.00

5.13. Operational Waste Generation

5.13.1. Unmitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
Refrigerated Warehouse-No Rail	0.00	0.00
Other Asphalt Surfaces	0.00	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
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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
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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
Emergency Generator	Diesel	0.00	0.50	50.0	2,350	0.73

5.16.2. Process Boilers

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

5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres
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5.18.2. Sequestration

5.18.2.1. Unmitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)
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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	22.9	annual days of extreme heat
Extreme Precipitation	5.90	annual days with precipitation above 20 mm
Sea Level Rise	0.00	meters of inundation depth
Wildfire	13.6	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 $\frac{3}{4}$ 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 (2040–2059 average under RCP 8.5), and consider different increments of sea level rise coupled with extreme storm events. Users may select from four model simulations to view the range in potential inundation depth 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 50 meters (m) by 50 m, or about 164 feet (ft) by 164 ft.

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	N/A	N/A	N/A	N/A
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	N/A	N/A	N/A	N/A
Wildfire	N/A	N/A	N/A	N/A
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack	N/A	N/A	N/A	N/A
Air Quality	N/A	N/A	N/A	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	N/A	N/A	N/A	N/A
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	N/A	N/A	N/A	N/A
Wildfire	N/A	N/A	N/A	N/A
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack	N/A	N/A	N/A	N/A
Air Quality	N/A	N/A	N/A	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 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	47.0
AQ-DPM	50.8

Drinking Water	68.6
Lead Risk Housing	8.88
Pesticides	0.00
Toxic Releases	39.2
Traffic	81.4
Effect Indicators	—
CleanUp Sites	0.00
Groundwater	25.1
Haz Waste Facilities/Generators	89.5
Impaired Water Bodies	66.7
Solid Waste	0.00
Sensitive Population	—
Asthma	14.8
Cardio-vascular	25.2
Low Birth Weights	47.1
Socioeconomic Factor Indicators	—
Education	7.40
Housing	49.0
Linguistic	34.6
Poverty	11.7
Unemployment	35.0

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	82.80508148

Employed	87.36045169
Median HI	—
Education	—
Bachelor's or higher	77.86475042
High school enrollment	100
Preschool enrollment	77.27447709
Transportation	—
Auto Access	96.70216861
Active commuting	39.83061722
Social	—
2-parent households	24.44501476
Voting	64.1986398
Neighborhood	—
Alcohol availability	53.56088798
Park access	47.33735404
Retail density	81.00859746
Supermarket access	73.5275247
Tree canopy	74.91338381
Housing	—
Homeownership	32.37520852
Housing habitability	52.48299756
Low-inc homeowner severe housing cost burden	83.08738612
Low-inc renter severe housing cost burden	67.02168613
Uncrowded housing	48.81303734
Health Outcomes	—
Insured adults	62.95393302
Arthritis	96.9

Asthma ER Admissions	93.6
High Blood Pressure	97.2
Cancer (excluding skin)	74.5
Asthma	88.8
Coronary Heart Disease	97.8
Chronic Obstructive Pulmonary Disease	97.2
Diagnosed Diabetes	97.2
Life Expectancy at Birth	77.5
Cognitively Disabled	82.5
Physically Disabled	95.1
Heart Attack ER Admissions	61.8
Mental Health Not Good	79.6
Chronic Kidney Disease	97.1
Obesity	82.4
Pedestrian Injuries	19.6
Physical Health Not Good	95.5
Stroke	97.8
Health Risk Behaviors	—
Binge Drinking	4.0
Current Smoker	73.9
No Leisure Time for Physical Activity	94.8
Climate Change Exposures	—
Wildfire Risk	0.0
SLR Inundation Area	0.0
Children	23.1
Elderly	95.7
English Speaking	95.7

Foreign-born	39.6
Outdoor Workers	54.2
Climate Change Adaptive Capacity	—
Impervious Surface Cover	51.6
Traffic Density	58.4
Traffic Access	23.0
Other Indices	—
Hardship	22.5
Other Decision Support	—
2016 Voting	42.6

7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	28.0
Healthy Places Index Score for Project Location (b)	78.0
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
Construction: Construction Phases	Per project description
Construction: Trips and VMT	Per project description
Operations: Vehicle Data	Per project description
Operations: Energy Use	Per project description
Operations: Water and Waste Water	Per project description.
Operations: Solid Waste	Per project description.
Operations: Refrigerants	Per project description
Construction: Off-Road Equipment	Per project description
Construction: Dust From Material Movement	Per project description
Operations: Emergency Generators and Fire Pumps	Testing assumptions.

**APPENDIX C: BIOLOGICAL RESOURCES ASSESSMENT FOR
BACKCOUNTRY PUMP STATION**



Biological Resources Assessment for the Santa Clarita Valley Water Agency Backcountry Pump Station Project

Santa Clarita, California

NOVEMBER 2022

PREPARED FOR

Woodard & Curran

PREPARED BY

SWCA Environmental Consultants

BIOLOGICAL RESOURCES ASSESSMENT FOR THE SANTA CLARITA VALLEY WATER AGENCY BACKCOUNTRY PUMP STATION PROJECT

Prepared for

Woodard & Curran

24422 Avenida de la Carlota, Suite 180
Laguna Hills, California 92653
Attn: Jennifer Ziv

Prepared by

SWCA Environmental Consultants

320 North Halstead Street, Suite 120
Pasadena, California 91107
(626) 240-0587
www.swca.com

SWCA Project No. 62466

November 2022

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1 INTRODUCTION

Woodard & Curran retained SWCA Environmental Consultants (SWCA) to conduct a biological resources assessment for the proposed Santa Clarita Valley Water Agency (SCV Water) Backcountry Pump Station Project (project), located in the city of Santa Clarita, Los Angeles County, California (Figure 1). The following study was conducted to analyze any potential impacts the project may have on biological and waters resources located in the project site to comply with the federal, state, and local regulations. This report documents the methods and results of a biological resources assessment, which reviewed the likelihood for occurrence of sensitive biological resources and potential impacts that may occur.

1.1 Project Description and Location

The proposed project consists of the Backcountry Pump Station and associated turn-out and distribution pipelines. The Backcountry Pump Station would be located within the incorporated boundaries of the city of Santa Clarita, north of Magic Mountain Parkway, south of the Santa Clara River, approximately 0.5 mile east of Interstate 5 (Figure 2). The Backcountry Pump Station site is approximately 2 miles east/north-east of the site for the Backcountry Reservoir. The existing Magic Mountain Pipeline follows Magic Mountain Parkway and passes partially through the pump station site. The project area is in Township 4 North, Range 17 West, as depicted on the U.S. Geological Survey (USGS) Newhall, California, 7.5-minute topographic quadrangle (Figure 3).

The pump station site would include a pump building, flow control and pressure reducing station, emergency backup generator, fuel tank, and electrical transformer pad. The pump building would house the required mechanical and electrical equipment and would space for up to four 450 horsepower pumps. The overall dimension of the pump station site is approximately 268 feet by 140 feet. The pump building would be constructed with concrete masonry unit (CMU) block walls, with dimensions of approximately 100 feet by 66 feet, for a total footprint of approximately 6,600 square feet.

The access road and area surrounding the pump station would be paved with asphalt or concrete, and designed consistent with fire code, including, a minimum of 25 feet of clearance provided around the pump station building.

A diesel backup generator would be installed in a generator room within the pump building. Fuel for the backup generator would be stored in two tanks (one 7,000 gallons and one 300 gallons). The fuel tanks would be installed within containment walls and would be located outside the pump building.

The existing entrance gate from Magic Mountain Parkway, which is 26 feet wide, would remain in place and could accommodate various vehicles during construction and operation of the pump station. Perimeter fencing would be installed around the pump station and lighting at the pump station would be minimal. Landscaping, which would surround the property to provide privacy and to soften views of the pump station.

The proposed project also includes a turnout (V-9 Turnout Facility) that would be located at the Backcountry Pump Station site at the 42-inch discharging pipe. The V-9 turnout would include pressure and flow control valves, as well as a flow meter. From the V-9 Turnout facility two distribution pipelines would be constructed in Magic Mountain Parkway to tie into existing distribution mains. Specifically, a 16-inch distribution pipeline would extend approximately 1,920 feet in Magic Mountain Parkway to tie into the existing 16-inch main in Tourney Road to serve Zone 1, and a 24-inch distribution pipeline would extend approximately 1,487 feet in Magic Mountain Parkway to tie into the existing 16-inch main in Wayne Mills Place to serve Zone IIA-N.

1.1.1 Construction Activities

Construction of the pump station would involve site preparation, grading, structural improvements, paving, and electrical work. Minimal grading would be required as the site is relatively flat. Excavation for the pump station would be to a maximum depth of 15 feet below ground surface. Construction staging would occur on the proposed pump station site, and would require storage of equipment, construction materials, and stockpiled soil. Construction activities would be restricted to the disturbed site; areas of adjacent vegetation would be avoided. There is also potential for landscaping improvements and work to improve driveway access to Magic Mountain Parkway in the public right-of-way.

Construction of the V-9 turnout would be by open cut trenching. To connect the pump station to the existing 42-inch water transmission pipeline (Magic Mountain Pipeline), some work may be required in public right-of-way in Magic Mountain Parkway. Construction of the 16-inch and 24-inch distribution pipelines in Magic Mountain Parkway would be completed by open cut trenching. The trench would have maximum depth of 6 feet below ground surface and width of 4 feet (2 feet on either side). All construction would take place within the Magic Mountain Parkway right-of-way. Construction staging for would be located at the pump station site.

It is anticipated that in order to make proposed connections to the existing Magic Mountain Pipeline, dewatering and discharge into local storm drains along Magic Mountain Parkway would be required. Discharges into the storm drain would require a permit from County of Los Angeles Department of Public Works (LACDPW) with pre-approved discharge locations. In addition, coordination with the California Department of Fish & Wildlife (CDFW) would be required if significant discharges to the Santa Clara River, are required.

1.2 Site Characteristics

The survey area consists of flat land with little to no slope except for the north edge of the site, which has a north-facing aspect as part of the bank of the Santa Clara River (Appendix A, Photo 1).

The maximum elevation is approximately 1,100 feet above mean sea level (amsl) in the southern extent of the survey area and the minimum elevation is approximately 1,080 feet amsl near the northern extent of the survey area.

The survey area is primarily composed of disturbed/developed land with little vegetation within the project disturbance area, and patches of Upland Mustards, Mulefat Thickets, California Buckwheat Scrub and Fremont Cottonwood Forest and Woodland vegetation communities outside the project disturbance area (Appendix A, Photos 1–6).

The project disturbance area is biologically depauperate (low diversity, quality and quantity of flora and fauna), likely due to its prior use for cultivating row crops until 2017, and its current paved state. Most biological diversity occurs within the 100-foot survey area buffer adjacent to the project disturbance area.

Potential jurisdictional areas are present at the northern extent of the survey area, where the top of bank of the Santa Clara River is located, with vegetation associated with the riparian corridor, but these are approximately 90-95 feet outside of the proposed project disturbance areas. Appendix A provides several photographs of the site taken August 27, 2021, discussed further in Section 7 of this report.

Biological Resources Assessment for the Santa Clarita Valley Water Agency Backcountry Pump Station Project



Figure 1. Project vicinity map

Biological Resources Assessment for the Santa Clarita Valley Water Agency Backcountry Pump Station Project

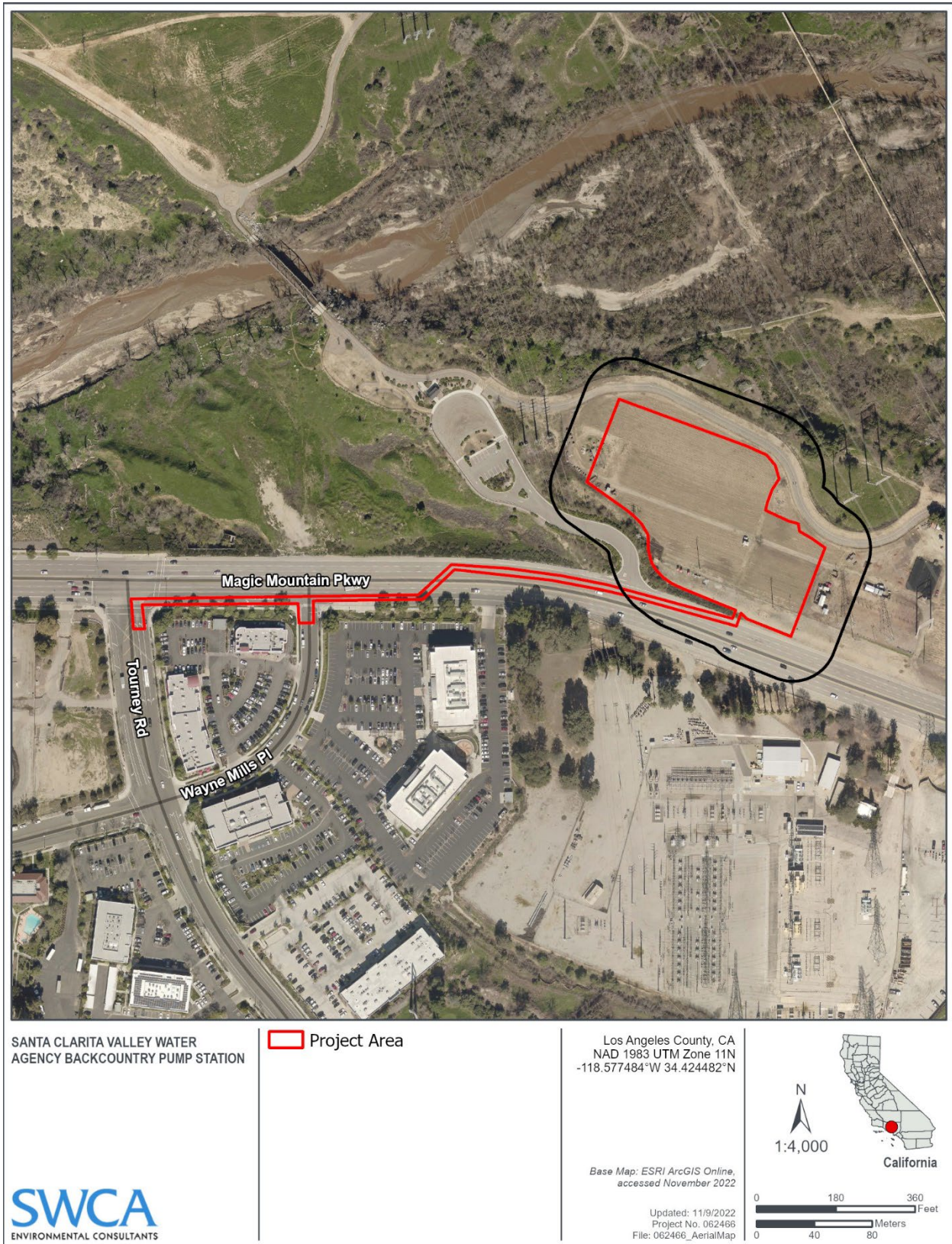


Figure 2. Project disturbance area and 100-foot buffer.

Biological Resources Assessment for the Santa Clarita Valley Water Agency Backcountry Pump Station Project

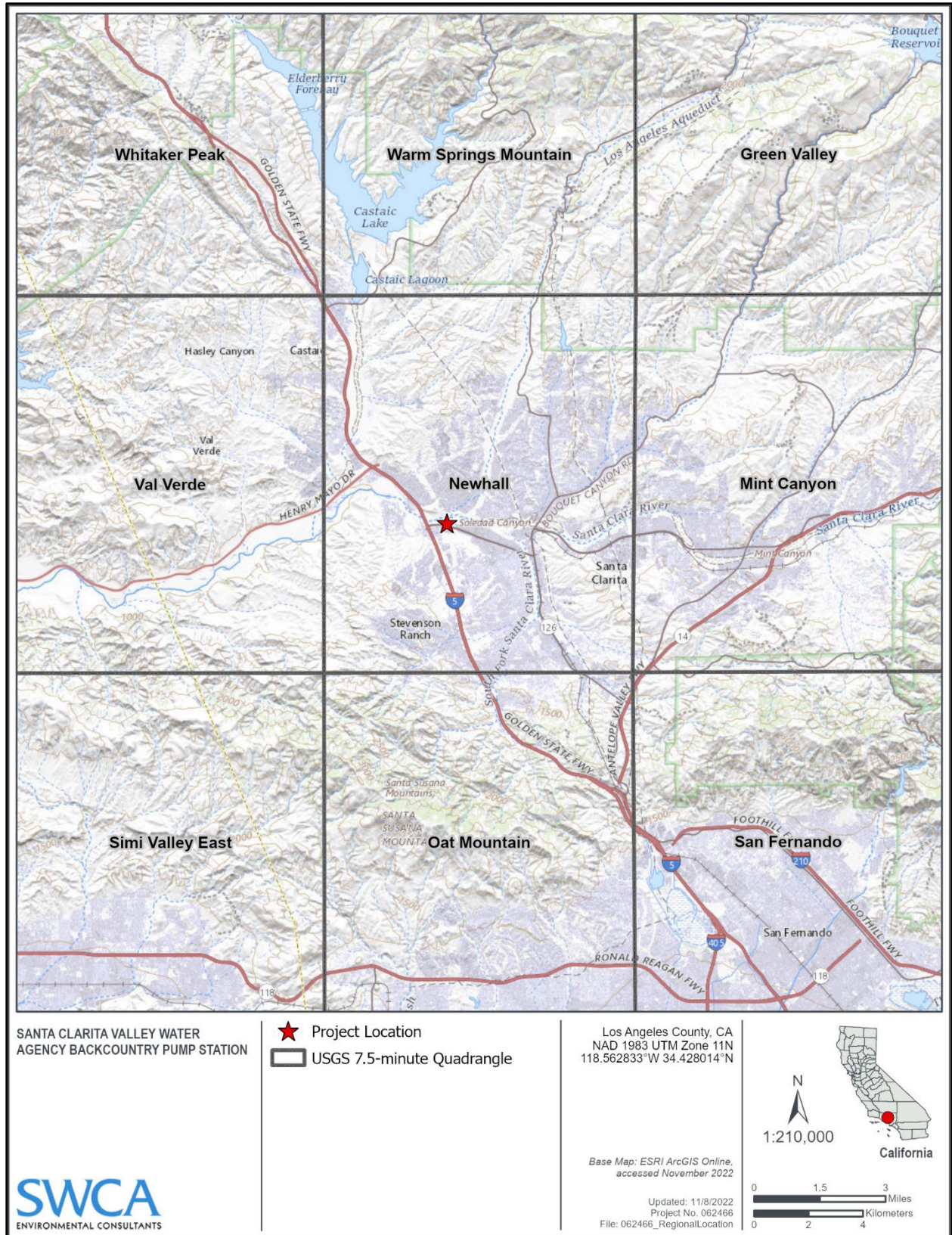


Figure 3. Project area location within context of the USGS 7.5-minute quadrangles topographic map.

2 REGULATORY SETTING

The following discussion reviews policies federal, state, and local laws, regulations, and policies relating to plants, wildlife, and special-status habitats. Only those regulations potentially applicable to the proposed project are included herein.

2.1 Federal Regulations

2.1.1 Federal Endangered Species Act

The U.S. Congress passed the Endangered Species Act (ESA) in 1973 to protect endangered species and species threatened with extinction (federally listed species). The ESA operates in conjunction with the National Environmental Policy Act (NEPA) to help protect the ecosystems upon which endangered and threatened species depend.

Section 9 of the ESA prohibits the “take” of endangered or threatened wildlife species. The legal definition of “take” is to “harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct” (16 United States Code [USC] 1532(19)). Harm is further defined to include significant habitat modification or degradation that results in death or injury to listed species by significantly impairing behavioral patterns (50 Code of Federal Regulations [CFR] 17.3). Harassment is defined as actions that create the likelihood of injury to listed species to such an extent as to significantly disrupt normal behavior patterns (50 CFR 17.3). Actions that result in take can result in civil or criminal penalties.

The ESA authorizes the U.S. Fish and Wildlife Service (USFWS) to issue permits under Sections 7 and 10 of that act. Section 7 mandates that all federal agencies consult with the USFWS for terrestrial species and/or National Marine Fisheries Service (NMFS) for marine species to ensure that federal agency actions do not jeopardize the continued existence of a listed species or adversely modify critical habitat for listed species. Any anticipated adverse effects require preparation of a biological assessment to determine potential effects of the project on listed species and critical habitat. If the project adversely affects a listed species or its habitat, the USFWS or NMFS prepares a Biological Opinion. The Biological Opinion may recommend “reasonable and prudent alternatives” to the project to avoid jeopardizing or adversely modifying habitat including take limits.

The ESA defines “critical habitat” as habitat deemed essential to the survival of a federally listed species. The ESA requires the federal government to designate critical habitat for any species it lists under the ESA. Under Section 7, all federal agencies must ensure that any actions they authorize, fund, or carry out are not likely to jeopardize the continued existence of a listed species, or destroy or adversely modify its designated critical habitat. These complementary requirements apply only to federal agency actions, and the latter only to specifically designated habitat. A critical habitat designation does not set up a preserve or refuge, and applies only when federal funding, permits, or projects are involved (i.e., a federal nexus). Critical habitat requirements do not apply to activities on private land that do not involve a federal nexus.

Section 10 of the ESA includes provisions to authorize take that is incidental to, but not the purpose of, activities that are otherwise lawful. Under Section 10(a)(1)(B), USFWS may issue permits (incidental take permits) for take of ESA-listed species if the take is incidental and does not jeopardize the survival and recovery of the species. To obtain an incidental take permit, an applicant must submit a habitat conservation plan outlining steps to minimize and mitigate permitted take impacts to listed species.

2.1.2 Migratory Bird Treaty Act

The federal Migratory Bird Treaty Act (MBTA) prohibits any person, unless permitted by regulations, to

...pursue, hunt, take, capture, kill, attempt to take, capture or kill, possess, offer for sale, sell, offer to purchase, purchase, deliver for shipment, ship, cause to be shipped, deliver for transportation, transport, cause to be transported, carry, or cause to be carried by any means whatsoever, receive for shipment, transportation or carriage, or export, at any time, or in any manner, any migratory bird, included in the terms of this Convention ... for the protection of migratory birds ... or any part, nest, or egg of any such bird. (16 USC 703)

The list of migratory birds includes nearly all bird species native to the United States. The statute was extended in 1974 to include parts of birds, as well as eggs and nests. The Migratory Bird Treaty Reform Act of 2004 further defined species protected under the act and excluded all nonnative species. Thus, it is illegal under MBTA to directly kill, or destroy a nest of, nearly any native bird species.

2.2 State Regulations

2.2.1 California Endangered Species Act

The CDFW administers the California Endangered Species Act (CESA), which prohibits the “taking” of listed species except as otherwise provided in state law. Section 86 of the California Fish and Game Code (FGC) defines “take” as “hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill.” Under certain circumstances, the CESA applies these take prohibitions to species petitioned for listing (state candidates). Pursuant to the requirements of the CESA, state lead agencies (as defined under California Public Resources Code Section 21067) are required to consult with the CDFW to ensure that any action or project is not likely to jeopardize the continued existence of any endangered or threatened species or result in destruction or adverse modification of essential habitat. Additionally, the CDFW encourages informal consultation on any proposed project that may impact a candidate species. The CESA requires the CDFW to maintain a list of threatened and endangered species. The CDFW also maintains a list of candidates for listing under the CESA, and of species of special concern (or watch list species).

2.2.2 Fully Protected Species

The FGC provides protection from take for a variety of species, referred to as fully protected species. Section 5050 lists protected amphibians and reptiles, and Section 3515 prohibits take of fully protected fish species. Eggs and nests of fully protected birds are covered under Section 3511. Migratory non-game birds are protected under Section 3800, and mammals are protected under Section 4700. Except for take related to scientific research, all take of fully protected species is prohibited.

2.2.3 Nesting Birds and Raptors

FGC Section 3503 states that it is unlawful to take, possess, or needlessly destroy the nest or eggs of any bird, except as otherwise provided by this code or any regulation made pursuant thereto. Section 3503.5 provides protection for all birds of prey, including their eggs and nests.

2.2.4 Migratory Bird Protection

Take or possession of any migratory non-game bird as designated in the MBTA is prohibited by FGC Section 3513.

2.2.5 Bats

FGC Section 4150 prohibits the take of bats, regardless of their listing status.

2.2.6 Native Plant Protection Act

The Native Plant Protection Act (NPPA) of 1977 (FGC Section 1900–1913) directed the California Department of Fish and Game (now known as CDFW) to carry out the California Legislature’s intent to “preserve, protect and enhance rare and endangered plants in this State.” The NPPA gave the California Fish and Game Commission the power to designate native plants as “endangered” or “rare” and protect endangered and rare plants from take. The NPPA thus includes measures to preserve, protect, and enhance rare and endangered native plants.

CESA has largely superseded NPPA for all plants designated as endangered by the NPPA. The NPPA nevertheless provides limitations on take of rare and endangered species as follows: “...no person will import into this state, or take, possess, or sell within this State” any rare or endangered native plant, except in compliance with provisions of the CESA. Individual landowners are required to notify the CDFW at least 10 days in advance of changing land uses to allow the CDFW to salvage any rare or endangered native plant material.

2.2.7 California Environmental Quality Act

The California Environmental Quality Act (CEQA) was adopted in 1970 and applies to discretionary actions directly undertaken, financed, or permitted by state or local government lead agencies. CEQA requires that a project’s effects on environmental resources must be analyzed and assessed using criteria determined by the lead agency. CEQA defines a rare species in a broader sense than the definitions of threatened, endangered, or California species of concern. Under this definition, the CDFW can request additional consideration of species not otherwise protected.

2.3 Federal, Regional and Local Conservation Plans

There are no federal, state, or local parks; designated wildlife corridors or conservation areas; or Los Angeles County Significant Ecological Areas on or adjacent to the survey area. Similarly, there is no USFWS designated critical habitat or Habitat Conservation Plan, and no CDFW Natural Community Conservation Plan at or adjacent to the survey area except for arroyo toad (*Anaxyrus californicus*) critical habitat narrowly overlaps the north and west sides of the 100-foot buffer of the project disturbance area. The project site is also near Santa Clara River and Round Mountain Open Space, owned by the City of Santa Clarita.

3 METHODOLOGY

Information on the project area’s existing conditions was compiled from existing literature and available data on biological resources in the vicinity, and a reconnaissance-level field survey was conducted to assess potential habitat value for special-status species and assess on-site conditions.

3.1 Database and Literature Review

Existing databases and literature were reviewed to determine previously identified special-status biological resources that could occur on or in the immediate vicinity of the survey area. The data search centered on the USGS 7.5-minute Newhall quadrangle where the survey area is located, in addition to the surrounding eight quadrangles: Whitaker Peak, Warm Springs Mountain, Green Valley, Mint Canyon, San Fernando, Oat Mountain, Santa Susana, and Val Verde (see Figure 2).

The following resources were used in the literature review:

- California Natural Diversity Database (CNDDB) RAREFIND 5 (CDFW 2021a)
- California Native Plant Society (CNPS) Inventory of Rare and Endangered Plants (CNPS 2001, 2021a)
- Calflora online database of California plants (Calflora 2021)
- Consortium of California Herbaria (CCH) (CCH 2021)
- Jepson eFlora, online database of California plants (Jepson Flora Project 2021)
- A Manual of California Vegetation (CNPS 2021b)
- eBird online database of bird distribution and abundance (eBird 2021)
- USFWS Critical Habitat Mapper and File Data (USFWS 2021)
- Google Earth aerial imagery (Google Earth 2021)
- California Herps, A Guide to the Amphibians and Reptiles of California (Nafis 2021)

This search was used to determine which special-status plant and wildlife species required analysis within the survey area by assessing existing on-site conditions.

Preliminary mapping of on-site vegetation communities was conducted through desktop research with subsequent field verification. Vegetation alliances were classified using *A Manual of California Vegetation* (CNPS 2021b).

3.2 Field Survey Methods

A one-day reconnaissance-level habitat assessment was conducted over the survey area in August 2021.

3.2.1 Flora and Fauna Surveys

A biological resources survey was conducted on August 27, 2021, by SWCA biologist Maisie Borg of the project disturbance area and surrounding 100-foot buffer (survey area). The purpose of the survey was to document the biological diversity and the integrity of natural resources. Special attention was focused on determining the possibility that species designated as rare, or which are afforded special legislative protection, had the potential to occur in the survey area.

The survey was conducted between 8:00 a.m. and 12:00 p.m. Conditions were sunny and hot, with temperatures ranging from 73 to 99 degrees Fahrenheit and wind speed ranging from 0 to 6 miles per hour. The survey area was accessible by vehicle and surveyed on foot.

Existing biological conditions were noted while walking meandering transects and vegetation alliances were surveyed and mapped. The desktop vegetation map prepared ahead of time was verified and refined. Comprehensive lists of all plant and wildlife species identified were compiled (Appendices B and C). Particular focus was given to the potential occurrence of special-status species and the identification of suitable habitats and conditions to support them. Wildlife observations were made directly and aided by the use of binoculars or through sign including tracks, scat, and remains. Taxonomic conventions for flora followed the Jepson eFlora website (Jepson Flora Project 2021). Naming conventions for fauna followed those listed in CNDDDB, the *Birds of North America* (Cornell Lab of Ornithology 2021), and the *Peterson Field Guide to Western Reptiles & Amphibians* (Stebbins 2018). Vegetation communities were classified using *A Manual of California Vegetation* (CNPS 2021b). All of the biological resources were recorded using a global positioning system (GPS) unit with submeter accuracy.

4 RESULTS – EXISTING CONDITIONS

4.1 Soils

Soils are an important component of plant distribution, at times predictive of the occurrence of special-status species and/or habitats. Only one soil series is mapped within the survey area, detailed in Table 1 (Natural Resources Conservation Service [NRCS] 2021).

Table 1. Soil Map Units

Soil Symbol	Map Unit Name*	Percent of Survey Area
SsA	Sorrento loam, 0% to 2% slopes	100%

*NRCS (2006).

Sorrento loam, 0% to 2% percent slopes, is a nearly level soil that generally occurs on alluvial fans, flood plains, and in small valleys. It is alluvial, and a well-drained soil with low runoff potential.

4.2 Vegetation Communities and Land Cover Types

The project disturbance area is biologically depauperate, likely due to its prior use for cultivating row crops until 2017, and its current paved state. Most biological diversity occurs within the 100-foot buffer area, which includes three types of native vegetation communities: Mulefat Thickets, California Buckwheat Scrub, and Fremont Cottonwood Forest and Woodland. The project disturbance area consists of the Developed/Disturbed land cover type and a nonnative vegetation community: Upland Mustards or Star-Thistle Fields. The distribution of these vegetation communities and land cover types are displayed on Figure 4 with exact acreages in Table 2. Each vegetation community and land cover type are discussed in detail below. Appendix B lists all plants identified during the field survey.

Table 2. Vegetation Communities and Land Cover Types Acreages, with Rarity Status

Vegetation Community / Land Cover Type	Rarity Rank*	Acreage within Project Disturbance Area	Acreage within 100-foot Buffer	Total Acreage
California Buckwheat Scrub	S5 G5	0	0.08	0.08

Biological Resources Assessment for the Santa Clarita Valley Water Agency Backcountry Pump Station Project

Vegetation Community / Land Cover Type	Rarity Rank*	Acreage within Project Disturbance Area	Acreage within 100-foot Buffer	Total Acreage
Fremont Cottonwood Forest and Woodland	S3.2 G4	0	0.22	0.22
Mulefat Thickets	S4 G4	0	0.39	0.39
Upland Mustards or Star-Thistle Fields	not applicable	0.25	1.52	1.78
Developed/Disturbed	not applicable	3.58	2.28	5.86

*Rarity Rank =

Global Rank:

G4 = Over 100 viable occurrences worldwide, and/or more than 32,000 acres

G5 = Demonstrably secure because of its worldwide abundance

State Rank:

S3 = Rare or uncommon in state (usually 21 to 100 occurrences)

S4 = Over 100 viable occurrences statewide, and/or more than 32,000 acres

S5 = Demonstrably secure because of its statewide abundance

0.1 = very threatened 0.2 = threatened 0.3 = no current threats known

4.2.1 California Buckwheat Scrub (*Eriogonum fasciculatum* Shrubland Alliance)

California Buckwheat Scrub is a shrubland vegetation community composed of shrubs typically less than 2 meters tall with a variable herbaceous layer that may be grassy. In the survey area, this vegetation community occurs at the southern portion, in a small sliver bordering Magic Mountain Parkway, totaling only 0.08 acre. (Appendix A, Photo 2). Besides California buckwheat (*Eriogonum fasciculatum*), this community is heavily influenced by the invasive weed, shortpod mustard (*Hirschfeldia incana*). There are also other nonnatives such as white horehound (*Marrubium vulgare*) and the annual invasive grass, red brome (*Bromus rubens*). Notably, trash is incidentally piled in this area as the wind sweeps it from the main thoroughfare, Magic Mountain Parkway, creating an even more disturbed ecology in this shrubland.

4.2.2 Fremont Cottonwood Forest and Woodland (*Populus fremontii* – *Fraxinus velutina* – *Salix gooddingii* Forest and Woodland Alliance)

Fremont cottonwood forest and woodland is characterized by Fremont cottonwood (*Populus fremontii* ssp. *fremontii*) as dominant or co-dominant in a continuous to open tree canopy with an intermittent to open shrub layer and a variable herbaceous layer. These Fremont cottonwood-dominated woodlands are found in the northern portion of the survey area, only within the 100-foot buffer to the project disturbance area, covering approximately 0.22 acre. Fremont cottonwoods make up over 30% relative cover in the tree canopy with red willow (*Salix laevigata*) present in lesser abundance. The shrub layer is partially dominated by the nonnative giant reed (*Arundo donax*), with other natives in the understory such as creek clematis (*Clematis ligusticifolia*) and California wild rose (*Rosa californica*). An overview photo is available in Appendix A, Photo 3. Other invasives such as the Peruvian pepper tree (*Schinus molle*) are also present within this community, especially in the northeastern portion of the site. Importantly, this

vegetation community is recognized as a CDFW Sensitive Natural Community with a state rarity status of S3.2, meaning that it is rare or uncommon in the state (usually 21 to 100 occurrences) and is threatened.

4.2.3 Mulefat Thickets (*Baccharis salicifolia* Shrubland Alliance)

Mulefat thickets (Appendix A, Photo 4) are shrublands typically with two tiers; the top tier about 12 feet tall, dominated by mulefat (*Baccharis salicifolia* ssp. *salicifolia*) at over 50% relative cover, and the second tier, the subshrub canopy, less than 6 feet tall, with multiple native and nonnative shrubs, and a sparse herbaceous layer. In the survey area, native shrubs that are present include coyote brush (*Baccharis pilularis*), sugar bush (*Rhus ovata*), and blue elderberry (*Sambucus nigra* ssp. *caerulea*). Nonnative shrubs in the survey area include tree tobacco (*Nicotiana glauca*) and saltcedar (*Tamarix ramosissima*). Emergent trees are present at low cover, including California sycamore (*Platanus racemosa*) and Fremont cottonwood. The herbaceous layer is dominated by nonnative annual grasses and a few native herbs including Coulter's horseweed (*Laennecia coulteri*), seaside heliotrope (*Heliotropium curassavicum* var. *oculatum*) and Canada horseweed (*Erigeron canadensis*). Patches of perennial pepperweed (*Lepidium latifolium*) line the outer edges where enough sunlight is available. Overall, this vegetation alliance covers 0.39 acre of the survey area.

4.2.4 Upland Mustards or Star-Thistle Fields (*Brassica nigra* – *Centaurea [solstitialis, melitensis]* Herbaceous Semi-Natural Alliance)

Upland mustards or star-thistle fields are a vegetation community dominated by nonnative invasive plants. In the survey area there are two distinct versions of this community. In some patches in the southern portion of the survey area, the community is dominated by shortpod mustard (*Hirschfeldia incana*) (Appendix A, Photo 5) and other swaths in the northern portion of the survey area are dominated by tocalote (*Centaurea melitensis*) (Appendix A, Photo 6). Both these communities are dominated by the invasive annual, but also are home to natives such as fiddleneck (*Amsinckia menziesii*) and common phacelia (*Phacelia distans*) where they can compete against the invasive species. Emergent shrubs are present at low cover such as blue elderberry. This alliance type is the second most abundant within the survey area at approximately 1.78 acres.

4.2.5 Developed/Disturbed

This land cover type is not a vegetation community, but rather a descriptor for areas mostly devoid of vegetation due to anthropogenic activities, which have little to no potential to support native species. Developed/Disturbed areas typically include roads, buildings, and parking lots. It is the most prevalent land cover type mapped within the study area boundary which includes the project area and buffer, covering approximately 5.86 acres (Appendix A, Photo 7). The project disturbance area is highly disturbed due to row crop cultivation until 2017, and its current paved state. Cracks in the pavement provide areas for water to gather and invasives such as prickly lettuce (*Lactuca serriola*) and Russian thistle (*Salsola tragus*) are first to compete for the resource. Along the margins of the developed/disturbed area, the invasive annual grass, red brome, flourishes.

Biological Resources Assessment for the Santa Clarita Valley Water Agency Backcountry Pump Station Project

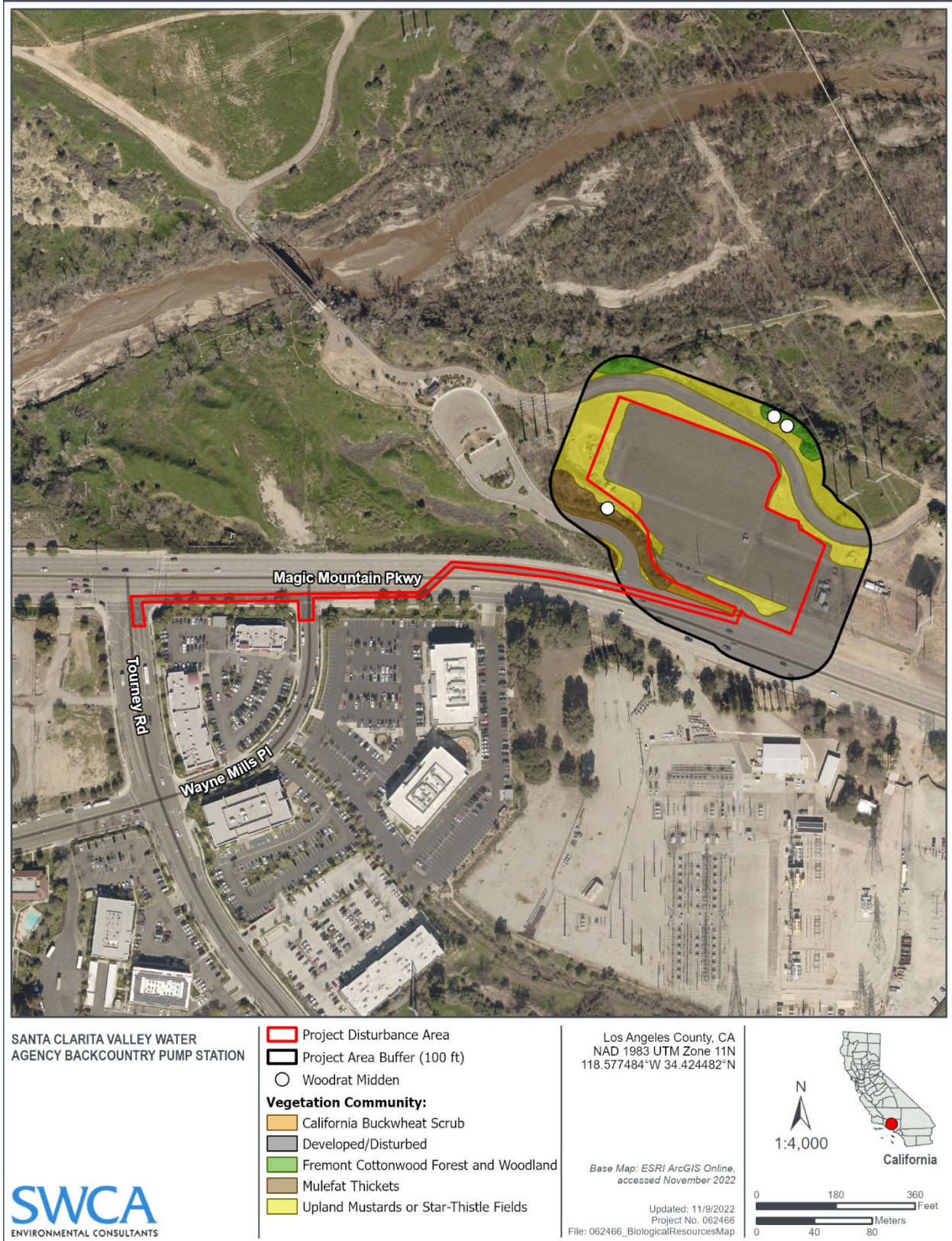


Figure 4. Biological resource map.

4.3 Wildlife

Few species of wildlife were observed or detected during the August 2021 field survey, due to a combination of the time of year and the highly disturbed, dry, and senescent conditions of the site. Wildlife considered common and typical of such areas near urban development were noted, including western fence lizard (*Sceloporus occidentalis*), turkey vulture (*Cathartes aura*), and Anna's Hummingbird (*Calypte anna*). Three woodrat (*Neotoma* sp.) middens were also observed (see Figure 4). Appendix C provides a list of all wildlife detected while surveying the area.

4.3.1 Wildlife Movement Corridors and Habitat Linkages

Wildlife corridors and habitat linkages are features that promote habitat connectivity. Wildlife corridors are typically discrete linear features within a landscape that are constrained by development or other non-habitat areas. Habitat linkages are networks of corridors through and between larger natural open spaces that facilitate movement of wildlife, thus providing long-term resilience of ecosystems against the detrimental effects of habitat fragmentation. Regional connection between high-quality open space habitats is critical to ongoing interchange of genetic material between populations, wildlife movement to escape natural disasters (fires, floods), colonization and expansion of populations, and plant propagation.

The survey area currently provides semi-free (due to the fence) wildlife movement for animals of moderate size within the property adjacent to the Santa Clara River and Round Mountain Open Space, owned by the City of Santa Clarita. However, residential, commercial, and industrial land uses, and the well-traveled Magic Mountain Parkway surround the site to the east, west, and south and already impose significant restrictions to wildlife movement into and out of the site. Birds and bats are typically able to move freely over these barriers, but the movement of other animals would be restricted.

5 MIGRATORY BIRDS

5.1 Migratory Birds

There are bird species on the project area are protected under the Migratory Bird Treaty Act (MBTA), which provides federal protection to all migratory birds, including nests and eggs. In order to relocate or alter any MBTA-protected nests, it would be necessary to obtain a permit from the USFWS to maintain compliance with the MBTA. However, Section 1 of the Interim Empty Nest Policy of the USFWS, Region 2, states that if the nest is completely inactive at the time of destruction or movement, a permit is not required in order to comply with the MBTA. If an active nest is observed before or during construction, measures should be taken to protect the nest from destruction and to avoid a possible violation of the MBTA.

Should any species covered under the MBTA be discovered nesting within the project area, avoidance of active nests would be required and may limit the timing of some ground-disturbing activities. Nesting generally occurs from February 1 through September 1. Measures to prevent birds from nesting, such as placement of exclusionary netting or removal of nesting habitat (e.g., blading and vegetation removal) can be implemented prior to the breeding season and is allowable under the MBTA.

6 SPECIAL-STATUS FLORA AND FAUNA

Special-status species evaluated in this study include plants and animals in one or more of the following categories:

- Species listed or proposed for listing as threatened or endangered under the federal ESA (50 CFR 17.12 [listed plants], 50 CFR 17.11 [listed animals], and various notices in the *Federal Register* [proposed species]).
- Species that are candidates for possible future listing as threatened or endangered under ESA (67 *Federal Register* 40657, June 13, 2002).
- Species listed or proposed for listing by the State of California as threatened or endangered under the CESA (14 California Code of Regulations [CCR] 670.5).
- Species that meet the definitions of rare or endangered under the CEQA (State CEQA Guidelines Section 15380).
- Plants listed as rare under the California NPPA (FGC 1900 et seq.).
- Plants listed in CNPS's California Rare Plant Rank system (CNPS 2001).
- Animal species of special concern as listed by the CDFW (2021b).
- Animals fully protected in California (FGC 3511 [birds], 4700 [mammals], 5050 [amphibians and reptiles], and 5515 [fish]).
- Invertebrates listed on the California Special Animals List (CDFW 2021c).

Appendices D and E provide lists of special-status plants and wildlife previously reported as occurring on the Newhall USGS quadrangle, where the project lies, and the eight quads surrounding it (Figure 2). These tables summarize the occurrence potential for each species within the survey area based on the on-site habitat conditions observed during the survey. During the assessment, each species was assigned to one of the categories listed below:

Present: Species is known to occur within the survey area, based on recent (within 20 years) CNDDDB or other records, and there is suitable habitat present within the survey area, or the species was observed within the survey area during the field survey. The presence of bird species was distinguished further into those that 1) nest in the survey area, 2) forage in the survey area, and/or 3) occur in the survey area only as transients during migratory flights or other dispersal events.

High Potential: Species is known to occur in the vicinity of the survey area (based on recent [within 20 years] CNDDDB or other records or based on professional expertise specific to the area or species), and there is suitable habitat within the survey area that makes the probability of the species occurring there high. Alternatively, there is suitable habitat within the survey area and within the known range of the species. Bird species in this category were differentiated based on their occurrence in the survey area for breeding, for foraging only, and/or as transients.

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

Low Potential: Species is known to occur in the vicinity of the survey area (within the area comprised by the surrounding USGS quadrangles); however, there is only poor quality or marginal habitat within the survey area and the probability of the species occurring is low.

Absent: There is no suitable habitat for the species within the survey area, the area is located outside the known range of the species, or the species has an extremely low probability of being found on the property. Alternatively, a species was surveyed for during the appropriate season with unequivocal negative results for species occurrence.

No special-status species were found on-site during the August 2021; only species with a **moderate to high** potential to occur will be discussed in detail in the following sections.

These findings are based solely on habitat conditions found on-site during the August 2021 field survey and the biologist's knowledge of the species and project vicinity.

6.1.1 Special-Status Flora

The literature search identified 72 special-status plant species as occurring in the nine-quadrangle search area. Excluding species that were able to be determined absent at the time of the August 27 survey date—meaning characteristic plant parts would have been in season and available for examination if present—only four species have potentially suitable habitat present within the survey area: San Fernando Valley spineflower (*Chorizanthe parryi* var. *fernandina*), club-haired mariposa lily (*Calochortus clavatus* var. *clavatus*), slender mariposa-lily (*Calochortus clavatus* var. *gracilis*), and Plummer's mariposa-lily (*Calochortus plummerae*). Each species is thoroughly reviewed in the table below, including the blooming month for each species (Table 3). For the full list of special-status plant species analyzed and the occurrence potential designated for each species, see Appendix D.

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Table 3. Special-Status Flora with Moderate or Greater Potential to Occur within the Survey Area

Scientific Name	Common Name	CRPR*; Listing Status	Ideal Survey Month	Habitat	Elevation (feet amsl)	Potential To Occur
<i>Chorizanthe parryi</i> var. <i>fernandina</i>	San Fernando Valley spineflower	1B.1; state listed as endangered	late April–May	coastal scrub, valley and foothill grassland	490–4,005	Moderate. Survey area located adjacent to population hotspot. 2011 CNDDDB occurrence record located 0.5 mile west of survey area, associated with <i>Bromus diandrus</i> , and <i>Bromus rubens</i> grassland (similarly disturbed habitat in survey area).
<i>Calochortus clavatus</i> var. <i>clavatus</i>	club-haired mariposa lily	4.3	late April–early May	chaparral, cismontane woodland, coastal scrub, valley and foothill grassland; clay, rocky, serpentinite (usually)	100–4,265	Moderate. Recent and near CCH occurrences (2011, 4.6 miles north; 2008, 6.3 miles northeast) occur in similar habitat (disturbed annual grasslands). 2015 Calflora record is 7.5 miles upstream in similarly disturbed habitat as present in survey area, associated with weedy species.
<i>Calochortus clavatus</i> var. <i>gracilis</i>	slender mariposa-lily	1B.2	late April–May	chaparral, coastal scrub, valley and foothill grassland	1,050–3,280	Moderate. Multiple recent CNDDDB records occur surrounding survey area in all directions, nearest from 2018 and 0.5 mile to the west, found on similar soils that are found in the survey area where not paved. Only moderate potential due to dominance of invasives within the potentially suitable habitat; however, <i>Bromus madritensis</i> ssp. <i>Rubens</i> and <i>Centaurea melitensis</i> recorded in the records near survey area.
<i>Calochortus plummerae</i>	Plummer's mariposa-lily	4.2	early June	chaparral, cismontane woodland, coastal scrub, lower montane coniferous forest, valley and foothill grassland; granitic, rocky	330–5,580	Moderate. 2014 CCH record 3.4 miles southeast of survey area, associated with <i>Hirschfeldia incana</i> , similar habitat within survey area. 2003 CCH record in sandy clay soil and recorded 3.9 miles upstream of Santa Clara River corridor associated with <i>Bromus rubens</i> , similar habitat within survey area.

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All four of the special-status plant species with a moderate potential to occur within the survey area would only be expected in the 100-foot buffer around the project disturbance area, not the project disturbance area itself (see Figure 3). This is due to the heavily impacted soils as a result of the property's prior use for cultivating row crops until 2017, and its current mostly paved state. Three of the four species are from the genus *Calochortus*. Notably, no dried three-chambered septicidal capsules—the unique fruit of the genus *Calochortus*—were observed during the August survey, although these are sometimes difficult to observe when surveying within similarly straw-colored dried shortpod mustard (*Hirschfeldia incana*) stems.

6.1.2 Special Status Fauna

Special-status fauna includes species or subspecies listed as endangered, threatened, or candidate for listing as endangered or threatened under the federal ESA, the CESA, or both. All wildlife species designated by the CDFW as fully protected, species of special concern, watch list species, and other wildlife included in the most current CDFW special animals list are also included (CDFW 2021a).

Fifty-one special-status species of fauna were reported in the literature as occurring within the nine-quadrangle search area, with the subject property in the center. Of these, six are considered to have a moderate occurrence potential within the survey area: Cooper's hawk (*Accipiter cooperii*), white-tailed kite (*Elanus leucurus*), least Bell's vireo (*Vireo bellii pusillus*), coastal whiptail (*Aspidoscelis tigris stejnegeri*), western pond turtle (*Emys marmorata*), and coast horned lizard (*Phrynosoma blainvillii*). Each are presented in the table below with full life history details and reasoning behind their occurrence potentials (Table 4). For the full list of special-status wildlife species analyzed and the occurrence potential designated for each species, see Appendix E.

It is important to note that the project disturbance area is very heavily disturbed (paved and invasive vegetation where unpaved), and thus the wildlife species that do have a moderate potential to occur are expected to occur only within the 100-foot buffer around the disturbance area, where habitat is further intact and provides suitable conditions for life (see Figure 4).

There is arroyo toad critical habitat partially overlaps the north and west sides of the 100-foot buffer of the project disturbance area. The arroyo toad is associated with the riparian habitat of the Santa Clara River, the potential jurisdictional area of which can be viewed in the figure in Section 7, below, which represents a more accurate representation of the potentially riparian habitat within the survey area. Because there are no quiet waters or pools directly in the survey area, the potential for arroyo toad within the survey area is low (USFWS 2014).

*Biological Resources Assessment for the Santa Clarita Valley Water Agency Backcountry Pump Station Project***Table 4. Special Status Fauna with Moderate or Greater Potential to Occur within the Survey Area**

Phylogenetic Category	Scientific Name	Common Name	Status	General Habitat	Microhabitat	Potential to Occur
Birds	<i>Accipiter cooperii</i>	Cooper's hawk	CDFW_WL	Cismontane woodland Riparian forest Riparian woodland Upper montane coniferous forest	Woodland, chiefly of open, interrupted or marginal type; nest sites mainly in riparian growths of deciduous trees, as in canyon bottoms on river floodplains; also, live oaks.	Moderate. 2005 CNDDDB occurrence 1.6 miles to the east of survey area. Patch of cottonwood forest at the northern end of survey area suitable, as it is adjacent to willow scrub just like nearby occurrence record states. Cooper's hawks are fairly common and are tolerant of urban setting, where they prey on songbirds.
Birds	<i>Elanus leucurus</i>	white-tailed kite	BLM_S, CDFW_FP IUCN_LC	Cismontane woodland Marsh and swamp Riparian woodland Valley and foothill grassland Wetland	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.	Moderate. 2005 CNDDDB occurrence record 260 feet north of survey area. Nests in cottonwoods; suitable cottonwood-willow riparian forest habitat in northern portion of 100-foot buffer of the project disturbance area and north of survey area.
Birds	<i>Vireo bellii pusillus</i>	least Bell's vireo	FE; SE; IUCN_NT; NABCI_YWL	Riparian forest Riparian scrub Riparian woodland	Summer resident of Southern California in low riparian areas in the vicinity of water or in dry river bottoms; below 2,000 feet amsl. Nests placed along margins of bushes or on twigs projecting into pathways, usually willow, Baccharis, mesquite.	Moderate. 2016 and 2010 CNDDDB records 0.9–1.2 miles north of survey area. Observed in mulefat scrub bordered by Fremont cottonwood woodland. Very suitable habitat on-site and adjacent to site.
Reptiles	<i>Aspidoscelis tigris stejnegeri</i>	coastal whiptail	CDFW_SSC	Hot and dry open areas with sparse foliage – chaparral, woodland, and riparian areas	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.	Moderate. 2015 and 2016 records 0.7 to 1 mile away, both west and northeast. One records states observed in bike path adjacent to road; bike path runs though the survey area with adjacent riparian area and south side of 100-foot project disturbance area buffer is semi-arid, as this species prefers.

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Phylogenetic Category	Scientific Name	Common Name	Status	General Habitat	Microhabitat	Potential to Occur
Reptiles	<i>Emys marmorata</i>	western pond turtle	BLM_S; CDFW_SSC; IUCN_VU; USFS_S	Aquatic Artificial flowing waters Klamath/North coast flowing waters Klamath/North coast standing waters Marsh and swamp Sacramento/San Joaquin flowing waters Sacramento/San Joaquin standing waters South coast flowing waters South coast standing waters Wetland	A thoroughly aquatic turtle of ponds, marshes, rivers, streams and irrigation ditches, usually with aquatic vegetation, below 6,000 feet amsl. Needs basking sites and suitable (sandy banks or grassy open fields) upland habitat up to 0.31 miles from water for egg-laying.	Moderate. 2015 CNDDDB record only 0.4 mile downstream. Open river channel is adjacent to survey area. Because they can travel upland habitat up to 0.31 mile from water for egg-laying, north portions of the 100-foot buffer of the project disturbance area may be suitable. Project disturbance area not suitable because mostly paved.
Reptiles	<i>Phrynosoma blainvillii</i>	coast horned lizard	BLM_S, CDFW_SSC; IUCN_LC	Chaparral Cismontane woodland Coastal bluff scrub Coastal scrub Desert wash Pinon and juniper woodlands Riparian scrub Riparian woodland Valley and foothill grassland	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.	Moderate. This horned lizard is most associated with open scrub and grassland habitats that support friable soils. None were found during the field surveys. They feed almost exclusively on harvester ants (<i>Pogonomyrmex</i> spp.) which have been found on-site in low numbers. 2015 CNDDDB record 0.7 mile west of survey area.

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FE = Federally listed as endangered

SE = State listed as endangered

BLM_S = Bureau of Land Management – Sensitive

CDFW_SSC = CDFW – Species of Special Concern

CDFW_FP = CDFW – Fully Protected

CDFW_WL = CDFW – Watch List

CDF_S = California Department of Forestry and Fire Protection – Sensitive

IUCN_LC = International Union for Conservation of Nature (IUCN) – Least Concern

IUCN_NT = IUCN – Near Threatened

IUCN_VU = IUCN – Vulnerable

USFS_S = U.S. Forest Service – Sensitive

NABCI_YWL = North American Bird Conservation Initiative – Yellow Watch List

7 JURISDICTIONAL WATERS AND WETLANDS

No waters jurisdictional resources were identified within the project disturbance area; however, potentially jurisdictional resources were identified along the northern edge of the 100-foot buffer area (Figure 5). The contiguous riparian canopy of the Santa Clara River extends into the northern portion of the 100-foot buffer of the project disturbance area. The Santa Clara River includes U.S. Army Corps of Engineers (USACE), Regional Water Quality Control Board (RWQCB), and CDFW jurisdictional resources and conveys flow east to west within Fremont Cottonwood Forest and Woodland habitat.

A wetland delineation within the Santa Clara River was not conducted and was not required for these biological resources assessment. A full delineation would be necessary to characterize the extent of USACE/RWQCB/CDFW resources. If impacts cannot be avoided to these potential jurisdictional resources, permitting from CDFW, RWQCB, and USACE may be required.

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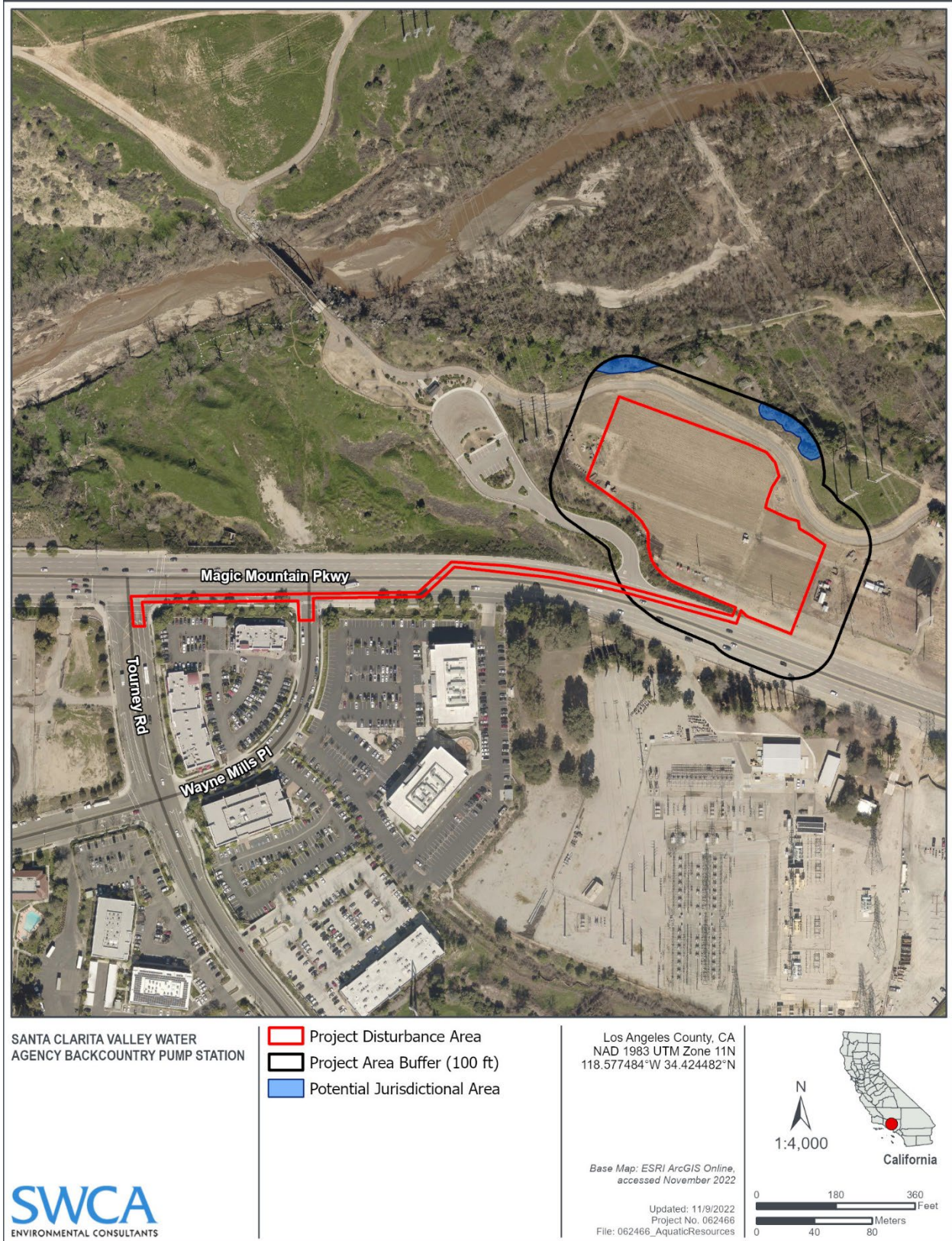


Figure 5. Map of potential jurisdictional water resources within the Fremont cottonwood forest and woodland.

8 IMPACT ANALYSIS

No impacts are expected to occur within the disturbance area of the SCV Water Backcountry Pump Station project. All sensitive flora and fauna determined to have a moderate potential to occur within the survey area do not occur due to the high level of disturbance and lack of habitat. No native habitat is expected to be disturbed as part of project activities and thus should not impact listed species (Table 5).

Project activities will also include discharges into the Los Angeles County Flood Control District storm drain and would be conveyed to the closest off-site storm drain. The discharge to a storm drain would be after dechlorination and most likely will use temporary pipe in Magic Mountain Parkway right-of-way to convey water from the site to the point of discharge. The discharge plan will be developed during the design phase of the project and coordinated/approved with the City/County, depending on the point of discharge. There are no expected impacts to biological resources as work would be conducted in developed/disturbed areas.

Table 5. Vegetation Communities and Land Cover Types Acreages Within Disturbance Area

Vegetation Community / Land Cover Type	Rarity Rank*	Acreage within Project Disturbance Area
Upland Mustards or Star-Thistle Fields	not applicable	0.25
Developed/Disturbed	not applicable	3.58

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9 CONCLUSIONS AND RECOMMENDATIONS

There will be no direct impacts to biological resources due to the level of disturbance within the project footprint. Indirect impacts will be avoided or mitigated through measures listed in Table 6. A nesting bird survey is recommended within five (5) days of construction to confirm no active nests are within the survey area. In addition, a survey will be performed for sensitive reptile species and a monitor recommended if these are found prior to construction. Although the habitat assessment was performed out of blooming season for most sensitive plant species, there is no habitat for these species within the disturbance area of the project site and no survey will be required.

There are no conflicts for this work with any local, state, or federal plans.

Table 6. Avoidance and Mitigation Measures

Scientific Name	Common Name	Status	Potential to Occur	Avoidance and Mitigation Measures	Impact
<i>Accipiter cooperii</i>	Cooper's hawk	CDFW_WL	Moderate.	Preconstruction Survey. A preconstruction survey will be performed within five days prior to construction to determine if the species is present. If present, a 300-foot buffer for an active nest will be established. A biological monitor will	No Impact

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Scientific Name	Common Name	Status	Potential to Occur	Avoidance and Mitigation Measures	Impact
				be on site during all construction activities if this species occurs.	
<i>Elanus leucurus</i>	white-tailed kite	BLM_S; CDFW_FP IUCN_LC	Moderate.	Preconstruction Survey. A preconstruction survey will be performed within five days prior to construction to determine if the species is present. If present, a 300-foot buffer for an active nest will be established. A biological monitor will be on site during all construction activities if this species occurs.	No Impact
<i>Vireo bellii pusillus</i>	least Bell's vireo	FE; SE; IUCN_NT; NABCI_YWL	Moderate.	Preconstruction Survey. A preconstruction survey will be performed within five days prior to construction to determine if the species is present. If present, a 300-foot buffer for an active nest will be established. A biological monitor will be on site during all construction activities if this species occurs.	No Impact
<i>Aspidoscelis tigris stejnegeri</i>	coastal whiptail	CDFW_SSC	Moderate.	Preconstruction Survey. A preconstruction survey will be performed within five days prior to construction to determine if this species is present on site. If determined to occur, a biological monitor will be on-site during all construction activities.	No Impact
<i>Emys marmorata</i>	western pond turtle	BLM_S; CDFW_SSC; IUCN_VU; USFS_S	Moderate.	Preconstruction Survey. A preconstruction survey will be performed within five days prior to construction to determine if this species is present on site. If determined to occur, a biological monitor will be on-site during all construction activities.	No Impact
<i>Phrynosoma blainvillii</i>	coast horned lizard	BLM_S; CDFW_SSC; IUCN_LC	Moderate.	Preconstruction Survey. A preconstruction survey will be performed within five days prior to construction to determine if coast horned lizard is present on site. If determined to occur, a biological monitor will be on-site during all construction activities.	No Impact
<i>Chorizanthe parryi</i> var. <i>fernandina</i>	San Fernando Valley spineflower	1B.1; state listed as endangered	None (within project area)	NA	No Impact
<i>Calochortus clavatus</i> var. <i>clavatus</i>	club-haired mariposa lily	4.3	None (within project area)	NA	No Impact
<i>Calochortus clavatus</i> var. <i>gracilis</i>	slender mariposa-lily	1B.2	None (within project area)	NA	No Impact
<i>Calochortus plummerae</i>	Plummer's mariposa-lily	4.2	None (within project area)	NA	No Impact

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10 LITERATURE CITED

- Baldwin, B.G., D.H. Goldman, D.J. Keil, R. Patterson, T.J. Rosatti, and D.H. Wilken (editors). 2012. *The Jepson Manual: Vascular Plants of California*. 2nd ed. Berkeley: University of California Press.
- Calflora. 2021. Calflora Database. Information on California plants for education, research and conservation. Available at: <https://www.calflora.org/>. Accessed August 2021.
- California Native Plant Society (CNPS). 2001. *California Native Plant Society's Inventory of Rare and Endangered Plants of California*. 6th ed. Sacramento: California Native Plant Society.
- . 2021a. Inventory of Rare and Endangered Plants of California. California Native Plant Society Rare Plant Program. Available at: www.rareplants.cnps.org. Accessed September 2021.
- . 2021b. A Manual of California Vegetation, Online Edition. Sacramento: California Native Plant Society. Available at: <http://www.cnps.org/cnps/vegetation/>. Accessed August 2021.
- California Birds Record Committee (CBRC). 2021. Official California Checklist. Available at: <https://www.californiabirds.org/checklist.asp>. Accessed September 2021.
- California Department of Fish and Wildlife (CDFW). 2021a. California Natural Diversity Database. RAREFIND 5 Database Version 5.2.14. Available at: www.wildlife.ca.gov/Data/CNDDB/Maps-and-Data. Accessed September 2021.
- . 2021b. Special Animals. California Department of Fish and Wildlife Natural Diversity Database. RAREFIND 5 Database Version 5.2.14. Available at: www.wildlife.ca.gov/Data/CNDDB/Maps-and-Data. Accessed September 2021.
- . 2021c. Special Vascular Plants, Bryophytes, and Lichens List. California Department of Fish and Wildlife Natural Diversity Database. RAREFIND 5 Database Version 5.2.14. Available at: www.wildlife.ca.gov/Data/CNDDB/Maps-and-Data. Accessed September 2021.
- Consortium of California Herbaria (CCH). 2021. The Consortium of California Herbaria. Berkeley: University of California. Available at: <http://ucjeps.berkeley.edu/consortium/>. Accessed September 2021.
- Cornell Lab of Ornithology. 2021. All About Birds. Cornell Lab of Ornithology, Ithaca, New York. Available at: <https://www.allaboutbirds.org>. Accessed May 2021.
- Jepson Flora Project. 2021. The Jepson Herbarium. Jepson eFlora. Available at: <https://ucjeps.berkeley.edu/eflora/>. Accessed May 2021.
- Nafis, G. 2021. California Herps - A Guide to the Amphibians and Reptiles of California. Available at: <http://www.californiaherps.com/>. Accessed September 2021.
- Natural Resources Conservation Service (NRCS). 2021. USDA Web Soil Survey. Available at: <https://websoilsurvey.sc.egov.usda.gov/App/HomePage.htm/>. Accessed September 2021.
- PRISM Climate Group. 2021. PRISM Climate Data. Oregon State University. Available at: <http://prism.oregonstate.edu>. Accessed September 2021.

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Sawyer, J., T. Keeler-Wolf, and J. Evens. 2009. *A Manual of California Vegetation*. 2nd ed. Sacramento: California Native Plant Society.

U.S. Fish and Wildlife Service (USFWS). 2014. Arroyo toad (*Anaxyrus californicus*) Species Report. Ventura, California: U.S. Fish and Wildlife Service, Ventura Fish and Wildlife Office.

_____. 2021. Critical Habitat Mapper. Available at: <https://ecos.fws.gov/ecp/report/table/critical-habitat.html>. Accessed May 2021.

APPENDIX A

Site Photos



Photo 1. Overview of the top of bank of the Santa Clara River in the northern portion of the survey area, facing west-northwest. Photo taken August 27, 2021.



Photo 2. Overview of the California Buckwheat Scrub vegetation community, facing west. Photo taken August 27, 2021.



Photo 3. Overview of the Fremont Cottonwood Forest and Woodland vegetation community, facing north. Photo taken August 27, 2021.



Photo 4. Overview of the Mulefat Thickets vegetation community, facing west. Photo taken August 27, 2021.



Photo 5. Overview of the Upland Mustards vegetation community, facing southeast. Photo taken August 27, 2021.



Photo 6. Overview of the Star-Thistle Fields vegetation community, facing west. Photo taken August 27, 2021.



Photo 7. Overview of the Developed/Disturbed land cover type, facing northwest. Photo taken August 27, 2021.

APPENDIX B

Floral Compendium

Table B-1. Floral Compendium

Phylogenetic Category	Family	Scientific Name	Common Name	Lifeform	Native Status
Angiosperms (Eudicots)	Adoxaceae	<i>Sambucus nigra</i> ssp. <i>caerulea</i>	blue elderberry	shrub	native
	Anacardiaceae	<i>Rhus ovata</i>	sugar bush	shrub	native
		<i>Schinus molle</i>	Peruvian pepper tree	tree	invasive
	Apiaceae	<i>Foeniculum vulgare</i>	fennel	perennial herb	invasive
	Asteraceae	<i>Artemisia tridentata</i> ssp. <i>parishii</i>	Parish's sagebrush	shrub	native
		<i>Baccharis pilularis</i>	coyote brush	shrub	native
		<i>Baccharis salicifolia</i> ssp. <i>salicifolia</i>	mulefat	shrub	native
		<i>Carduus pycnocephalus</i> ssp. <i>pycnocephalus</i>	Italian thistle	annual herb	nonnative
		<i>Centaurea melitensis</i>	toçalote	annual herb	invasive
		<i>Erigeron canadensis</i>	Canada horseweed	annual herb	native
		<i>Heterotheca grandiflora</i>	telegraph weed	annual, perennial herb	native
		<i>Isocoma menziesii</i>	Menzies' goldenbush	shrub	native
		<i>Lactuca serriola</i>	prickly lettuce	annual herb	invasive
		<i>Laennecia coulteri</i>	Coulter's horseweed	annual herb	native
	Boraginaceae	<i>Amsinckia menziesii</i>	fiddleneck	annual herb	native
		<i>Heliotropium curassavicum</i> var. <i>oculatum</i>	seaside heliotrope	perennial herb	native
		<i>Phacelia distans</i>	common phacelia	annual herb	native
	Brassicaceae	<i>Hirschfeldia incana</i>	mustard	perennial herb	invasive
		<i>Lepidium latifolium</i>	perennial pepperweed	perennial herb	invasive
	Chenopodiaceae	<i>Atriplex polycarpa</i>	cattle spinach	shrub	native
<i>Salsola tragus</i>		Russian thistle	annual herb	invasive	
Grossulariaceae	<i>Ribes aureum</i>	golden currant	shrub	native	
Lamiaceae	<i>Marrubium vulgare</i>	white horehound	perennial herb	invasive	
	<i>Salvia mellifera</i>	black sage	shrub	native	
Platanaceae	<i>Platanus racemosa</i>	California sycamore	tree	native	
Polygonaceae	<i>Eriogonum fasciculatum</i>	California buckwheat	shrub	native	

Phylogenetic Category	Family	Scientific Name	Common Name	Lifeform	Native Status
	Ranunculaceae	<i>Clematis ligusticifolia</i>	creek clematis	perennial herb, vine	native
	Rosaceae	<i>Rosa californica</i>	California wild rose	shrub	native
	Salicaceae	<i>Populus fremontii</i> ssp. <i>fremontii</i>	cottonwood	tree	native
	Solanaceae	<i>Datura wrightii</i>	jimsonweed	perennial herb	native
		<i>Nicotiana glauca</i>	tree tobacco	tree, shrub	invasive
	Tamaricaceae	<i>Tamarix ramosissima</i>	tamarisk	tree, shrub	invasive
Angiosperms (Monocots)	Arecaceae	<i>Washingtonia robusta</i>	Mexican fan palm	tree	invasive
	Poaceae	<i>Arundo donax</i>	giant reed	perennial grass	invasive
		<i>Bromus rubens</i>	red brome	annual grass	nonnative

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APPENDIX C
Faunal Compendium

Table C-1. Faunal Compendium

Phylogenetic Category	Scientific Name	Common Name
Birds	<i>Aphelocoma californica</i>	California scrub jay
Birds	<i>Buteo jamaicensis</i>	red-tailed hawk
Birds	<i>Callipepla californica</i>	California quail
Birds	<i>Calypte anna</i>	Anna's hummingbird
Birds	<i>Cathartes aura</i>	turkey vulture
Birds	<i>Haemorhous mexicanus</i>	house finch
Birds	<i>Melospiza melodia</i>	song sparrow
Birds	<i>Psaltriparus minimus</i>	bush tit
Birds	<i>Sayornis nigricans</i>	black phoebe
Birds	<i>Selasphorus sasin</i>	Allen's hummingbird
Birds	<i>Spinus psaltria</i>	lesser goldfinch
Birds	<i>Sturnus vulgaris*</i>	European starling
Birds	<i>Thryomanes bewickii</i>	Bewick's wren
Birds	<i>Turdus migratorius</i>	American robin
Birds	<i>Zenaidura macroura</i>	mourning dove
Insects	<i>Apis mellifera*</i>	European honey bee
Insects	<i>Libellula saturata</i>	flame skimmer
Insects	<i>Pogonomyrmex</i> sp.	harvester ants
Insects	<i>Pontia protodice</i>	checkered white
Mammals	<i>Canis lupus*</i>	domestic dog
Mammals	<i>Neotoma</i> sp.	wood rat
Mammals	<i>Sylvilagus audubonii</i>	desert cottontail
Reptiles	<i>Sceloporus occidentalis</i>	western fence lizard
Reptiles	<i>Uta stansburiana</i> ssp. <i>elegans</i>	western side-blotched lizard

*Nonnative
SWCA 2021

APPENDIX D

Special-Status Flora – Potential for Occurrence

Table D-1. Results for Special-Status Plants with Potential for Occurrence within the Survey Area

Phylogenetic Category	Family	Scientific Name	Common Name	Lifeform	CRPR*; Listing Status	Blooming Period	Habitat	Elevation (feet amsl)	Potential To Occur
Angiosperms (Eudicots)	Asteraceae	<i>Deinandra minthornii</i>	Santa Susana tarplant	perennial deciduous shrub	1B.2; state listed as rare	July–November	chaparral, coastal scrub	920–2,495	Absent. Most occurrences near Simi Valley and south.
Angiosperms (Eudicots)	Asteraceae	<i>Deinandra paniculata</i>	paniculate tarplant	annual herb	4.2	(March) April–November	coastal scrub, valley and foothill grassland, vernal pools	80–3,085	Low. Nearest record (2.2 mile east) from survey area is historical (CCH record from 1935). 2002 occurrence 6.6 miles southwest of survey area.
Angiosperms (Eudicots)	Asteraceae	<i>Helianthus inexpectatus</i>	Newhall sunflower	perennial rhizomatous herb	1B.1	August–October	marshes and swamps, riparian woodland	900-1,000	Low. 2014 CCH occurrence collected 2.7 miles downstream (west) of the Santa Clara River within wet, mucky spring surrounded by willows. Survey area too xeric, but adjacent riparian woodland suitable.
Angiosperms (Eudicots)	Asteraceae	<i>Helianthus nuttallii</i> ssp. <i>parishii</i>	Los Angeles sunflower	perennial rhizomatous herb	1A	August–October	marshes and swamps (coastal salt and freshwater)	30–5,005	Absent. No suitable habitat on-site.
Angiosperms (Eudicots)	Asteraceae	<i>Hemizonia congesta</i> ssp. <i>congesta</i>	congested-headed hayfield tarplant	annual herb	1B.2	April–November	valley and foothill grassland; sometimes roadsides	65–1,835	Absent. Survey area located outside of general species distributional range (San Francisco Bay Area Subregion and Outer North Coast Ranges District).
Angiosperms (Eudicots)	Asteraceae	<i>Heterotheca sessiliflora</i> ssp. <i>sessiliflora</i>	beach goldenaster	perennial herb	1B.1	March–December	chaparral (coastal), coastal dunes, coastal scrub	0–4,020	Low. Virtually all records from San Diego County, South Coast Subregion.

Phylogenetic Category	Family	Scientific Name	Common Name	Lifeform	CRPR*; Listing Status	Blooming Period	Habitat	Elevation (feet amsl)	Potential To Occur
Angiosperms (Eudicots)	Asteraceae	<i>Hulsea vestita</i> ssp. <i>parryi</i>	Parry's sunflower	perennial herb	4.3	April–August	lower montane coniferous forest, pinyon and juniper woodland, upper montane coniferous forest; granitic or carbonate, rocky, openings	4,490–9,500	Absent. Survey area below elevational range of species.
Angiosperms (Eudicots)	Asteraceae	<i>Lasthenia glabrata</i> ssp. <i>coulteri</i>	Coulter's goldfields	annual herb	1B.1	February–June	marshes and swamps (coastal salt), playas, vernal pools	0–4,005	Absent. No suitable habitat on-site.
Angiosperms (Eudicots)	Asteraceae	<i>Pseudognaphalium leucocephalum</i>	white rabbit-tobacco	perennial herb	2B.2	(July) August–November (December)	chaparral, cismontane woodland, coastal scrub, riparian woodland	0–6,890	Absent. Not observed during the August survey. 2009 CNDDDB occurrence 2.75 miles from survey area, part of Castaic creek alluvial system.
Angiosperms (Eudicots)	Asteraceae	<i>Senecio aphanactis</i>	chaparral ragwort	annual herb	2B.2	Jan–April (May)	chaparral, cismontane woodland, coastal scrub	50–2,625	Low. Buckwheat scrub community on-site very small and degraded due to trash and invasives. CNDDDB record from 1901 1 mile to the southeast; exact location unknow.
Angiosperms (Eudicots)	Asteraceae	<i>Symphotrichum greatae</i>	Greata's aster	perennial rhizomatous herb	1B.3	June–October	broad-leafed upland forest, chaparral, cismontane woodland, lower montane coniferous forest, riparian woodland	985–6,595	Absent. Perennial shrub would have been visible during August survey.

Phylogenetic Category	Family	Scientific Name	Common Name	Lifeform	CRPR*; Listing Status	Blooming Period	Habitat	Elevation (feet amsl)	Potential To Occur
Angiosperms (Eudicots)	Berberidaceae	<i>Berberis nevinii</i>	Nevin's barberry	perennial evergreen shrub	1B.1; State listed as endangered; Federally listed as endangered	(February) March–June	chaparral, cismontane woodland, coastal scrub, riparian scrub; gravelly (sometimes), sandy (sometimes)	230–2,705	Absent. 1987 CNDDDB occurrence overlapping project area but labeled as Possibly Extirpated and Transplant Outside of Native Hab./Range.
Angiosperms (Eudicots)	Boraginaceae	<i>Amsinckia douglasiana</i>	Douglas' fiddleneck	annual herb	4.2	March–May	cismontane woodland, valley and foothill grassland; Monterey shale, dry	0–6,400	Absent. No suitable habitat. Nearest occurrence 8.4 miles to the east from 1978.
Angiosperms (Eudicots)	Boraginaceae	<i>Cryptantha rattanii</i>	Rattan's cryptantha	annual herb	4.3	April–July	cismontane woodland, riparian woodland, valley and foothill grassland	800–3,000	Absent. Survey area outside of the general distribution of the species.
Angiosperms (Eudicots)	Boraginaceae	<i>Harpagonella palmeri</i>	Palmer's grapplinghook	annual herb	4.2	March–May	chaparral, coastal scrub, valley and foothill grassland	65–3,135	Low. A 2005 CCH record 1.5 miles to the east. Scrub habitat in survey area is degraded, low herbaceous understory. CNDDDB record overlap; 5 miles accuracy.
Angiosperms (Eudicots)	Brassicaceae	<i>Lepidium virginicum</i> var. <i>robinsonii</i>	Robinson's pepper-grass	annual herb	4.3	January–July	chaparral, coastal scrub	5–2,905	Low. CCH record from 1967, in habitat that was watered intermittently with sewage effluent. Similar habitat on-site degraded.

Phylogenetic Category	Family	Scientific Name	Common Name	Lifeform	CRPR*; Listing Status	Blooming Period	Habitat	Elevation (feet amsl)	Potential To Occur
Angiosperms (Eudicots)	Brassicaceae	<i>Streptanthus campestris</i>	southern jewelflower	perennial herb	1B.3	(April) May–July	chaparral, lower montane coniferous forest, pinyon and juniper woodland	2,955–7,545	Absent. Survey area below elevational range of species.
Angiosperms (Eudicots)	Cactaceae	<i>Opuntia basilaris</i> var. <i>brachyclada</i>	short-joint beavertail	perennial stem	1B.2	April–June (August)	chaparral, Joshua tree "woodland," Mojavean desert scrub, pinyon and juniper woodland	1,395–5,905	Absent. Survey area below elevational range of species. No cacti observed during survey.
Angiosperms (Eudicots)	Caryophyllaceae	<i>Silene occidentalis</i> ssp. <i>longistipitata</i>	long-stiped campion	perennial herb	1B.2	June–August	chaparral, lower montane coniferous forest, upper montane coniferous forest	3,280–6,560	Absent. Survey area below elevational range of species.
Angiosperms (Eudicots)	Convolvulaceae	<i>Calystegia peirsonii</i>	Peirson's morning-glory	perennial rhizomatous herb	4.2	April–June	chaparral, chenopod scrub, cismontane woodland, coastal scrub, lower montane coniferous forest, valley and foothill grassland	100–4,920	Absent. Year 2003 CNDDDB occurrence located 1 mile southwest of survey area. Suitable habitat in open grassy areas of survey area. Evergreen foliage would have been visible during August survey.
Angiosperms (Eudicots)	Crassulaceae	<i>Dudleya densiflora</i>	San Gabriel Mountains dudleya	perennial herb	1B.1	March–July	chaparral, cismontane woodland, coastal scrub, lower montane coniferous forest, riparian woodland	800–2,000	Absent. Known only from six extant occurrences 40 miles southeast of survey area. Would have had visible vegetative parts during August survey.

Phylogenetic Category	Family	Scientific Name	Common Name	Lifeform	CRPR*; Listing Status	Blooming Period	Habitat	Elevation (feet amsl)	Potential To Occur
Angiosperms (Eudicots)	Fabaceae	<i>Astragalus brauntonii</i>	Braunton's milk-vetch	perennial herb	1B.1; Federally listed as endangered	January–August	chaparral, coastal scrub, valley and foothill grassland; recent burns or disturbed areas, usually sandstone with carbonate layers	10–2,100	Absent. No suitable habitat.
Angiosperms (Eudicots)	Fabaceae	<i>Lupinus paynei</i>	Payne's bush lupine	perennial shrub	1B.1	March–April (May–July)	coastal scrub, riparian scrub, valley and foothill grassland	720–1,380	Absent. Perennial shrub would have been visible during August survey.
Angiosperms (Eudicots)	Fagaceae	<i>Quercus durata</i> var. <i>gabrielensis</i>	San Gabriel oak	perennial evergreen shrub	4.2	April–May	chaparral, cismontane woodland	1,475–3,280	Absent. Survey area below elevational range of species. Perennial evergreen shrub would have been visible during August survey.
Angiosperms (Eudicots)	Hydrophyllaceae	<i>Nemophila parviflora</i> var. <i>quercifolia</i>	oak-leaved nemophila	annual herb	4.3	May–June	cismontane woodland, lower montane coniferous forest	2,295–7,220	Absent. Survey area below elevational range of species.
Angiosperms (Eudicots)	Hydrophyllaceae	<i>Phacelia hubbyi</i>	Hubby's phacelia	annual herb	4.2	April–July	chaparral, coastal scrub, valley and foothill grassland; gravelly, rocky, talus	0–3,280	Low. 2003 CCH record 6 miles north of survey area; 2009 CCH record 4.3 miles southwest of survey area; both records in mountainous topography. Survey area is in alluvial plain.

Phylogenetic Category	Family	Scientific Name	Common Name	Lifeform	CRPR*; Listing Status	Blooming Period	Habitat	Elevation (feet amsl)	Potential To Occur
Angiosperms (Eudicots)	Hydrophyllaceae	<i>Phacelia mohavensis</i>	Mojave phacelia	annual herb	4.3	April–August	cismontane woodland, lower montane coniferous forest, meadows and seeps, pinyon and juniper woodland	4,595–8,205	Absent. Survey area below elevational range of species.
Angiosperms (Eudicots)	Juglandaceae	<i>Juglans californica</i>	Southern California black walnut	perennial deciduous tree	4.2	March–August	chaparral, cismontane woodland, coastal scrub, riparian woodland	165–2,955	Absent. Perennial deciduous tree would have been visible during August survey.
Angiosperms (Eudicots)	Juglandaceae	<i>Juglans hindsii</i>	Northern California black walnut	perennial deciduous tree	1B.1	April–May	riparian forest, riparian woodland	0–1,445	Absent. Perennial deciduous tree would have been visible during August survey.
Angiosperms (Eudicots)	Lamiaceae	<i>Lepechinia fragrans</i>	fragrant pitcher sage	perennial shrub	4.2	March–October	chaparral	65–4,300	Absent. Perennial shrub would have been visible during August survey.
Angiosperms (Eudicots)	Lamiaceae	<i>Lepechinia rossii</i>	Ross' pitcher sage	perennial shrub	1B.2	May–September	chaparral	1,000–2,590	Absent. Perennial shrub would have been visible during August survey.
Angiosperms (Eudicots)	Malvaceae	<i>Malacothamnus davidsonii</i>	Davidson's bush-mallow	perennial deciduous shrub	1B.2	June–January	chaparral, cismontane woodland, coastal scrub, riparian woodland	605–3,740	Absent. Perennial shrub would have been visible during August survey.
Angiosperms (Eudicots)	Montiaceae	<i>Calandrinia breweri</i>	Brewer's calandrinia	annual herb	4.2	(January) March–June	chaparral, coastal scrub; sandy or loamy, disturbed sites and burns	30–4,005	Low. 1973 CCH occurrence located 6.9 miles to the southeast. Site disturbed by invasive mustards where suitable; tends to germinate after fire.

Phylogenetic Category	Family	Scientific Name	Common Name	Lifeform	CRPR*; Listing Status	Blooming Period	Habitat	Elevation (feet amsl)	Potential To Occur
Angiosperms (Eudicots)	Onagraceae	<i>Clarkia lewisii</i>	Lewis' clarkia	annual herb	4.3	May–July	broad-leaved upland forest, closed-cone coniferous forest, chaparral, cismontane woodland, coastal scrub	95–3,920	Absent. Survey area outside of the general distribution of the species (Outer South Coast Ranges District and Central Coast Subregion)
Angiosperms (Eudicots)	Onagraceae	<i>Oenothera longissima</i>	long-stem evening-primrose	annual / perennial herb	2B.2	July–September	Mojavean desert scrub, pinyon and juniper woodland; seasonally mesic	3,280–5,575	Absent. Survey area below elevational range of species.
Angiosperms (Eudicots)	Orobanchaceae	<i>Castilleja gleasoni</i>	Mt. Gleason paintbrush	perennial herb (hemiparasitic)	1B.2; State listed as Rare	May–June (September)	chaparral, lower montane coniferous forest, pinyon and juniper woodland; granitic	2,180–7,120	Absent. Survey area below elevational range of species.
Angiosperms (Eudicots)	Papaveraceae	<i>Canbya candida</i>	white pygmy-poppy	annual herb	4.2	March–June	Joshua tree "woodland," Mojavean desert scrub, pinyon and juniper woodland; granitic, gravelly, sandy	1,970–4,790	Absent. Survey area below elevational range of species.
Angiosperms (Eudicots)	Plantaginaceae	<i>Collinsia antonina</i>	San Antonio collinsia	annual herb	1B.2	March–May	chaparral, cismontane woodland	915–1,200	Absent. Survey area outside of the general distribution of the species (Outer South Coast Ranges District)

Phylogenetic Category	Family	Scientific Name	Common Name	Lifeform	CRPR*; Listing Status	Blooming Period	Habitat	Elevation (feet amsl)	Potential To Occur
Angiosperms (Eudicots)	Polemoniaceae	<i>Eriastrum sparsiflorum</i>	few-flowered eriastrum	annual herb	4.3	May–September	chaparral, cismontane woodland, great basin scrub, Joshua tree woodland, Mojavean desert scrub, pinyon and juniper woodland; granitic, sandy, usually openings	3,525–5,610	Absent. Survey area below elevational range of species.
Angiosperms (Eudicots)	Polemoniaceae	<i>Leptosiphon pygmaeus</i> ssp. <i>pygmaeus</i>	pygmy leptosiphon	annual herb	1B.2	April	coastal scrub, valley and foothill grassland	1,490–1,950	Absent. Survey area below elevational range of species.
Angiosperms (Eudicots)	Polemoniaceae	<i>Navarretia fossalis</i>	spreading navarretia	annual herb	1B.1; Federally listed as threatened	April–June	chenopod scrub, marshes and swamps, playas, vernal pools	100–2,150	Absent. No suitable habitat on-site.
Angiosperms (Eudicots)	Polemoniaceae	<i>Navarretia ojaiensis</i>	Ojai navarretia	annual herb	1B.1	May–July	chaparral, coastal scrub, valley and foothill grassland	900–2,035	Low. CCH record from 2003 7.2 miles west in dense coastal sage scrub associated with species that are absent within survey area. Scrub/grassland on-site is degraded.
Angiosperms (Eudicots)	Polemoniaceae	<i>Navarretia setiloba</i>	Piute Mountains navarretia	annual herb	1B.1	April–July	cismontane woodland, pinyon and juniper woodland, valley and foothill grassland	935–6,890	Low. Small disjunct population in Mint Canyon quadrangle 7 miles east of survey area, in vernal pool. Degraded habitat within survey area.

Phylogenetic Category	Family	Scientific Name	Common Name	Lifeform	CRPR*; Listing Status	Blooming Period	Habitat	Elevation (feet amsl)	Potential To Occur
Angiosperms (Eudicots)	Polygonaceae	<i>Chorizanthe breweri</i>	Brewer's spineflower	annual herb	1B.3	April–August	closed-cone coniferous forest, chaparral, cismontane woodland, coastal scrub; serpentinite, rocky or gravelly	145–2,625	Absent. Survey area outside of general distribution of species (San Luis Obispo).
Angiosperms (Eudicots)	Polygonaceae	<i>Chorizanthe parryi</i> var. <i>fernandina</i>	San Fernando Valley spineflower	annual herb	1B.1; State listed as endangered	April–July	coastal scrub, valley and foothill grassland	490–4,005	Moderate. Survey area located adjacent to population hotspot. 2011 CNDDDB occurrence record located 0.5 miles west of survey area, associated with <i>Bromus diandrus</i> , and <i>Bromus rubens</i> grassland (similarly disturbed habitat in survey area).
Angiosperms (Eudicots)	Polygonaceae	<i>Chorizanthe parryi</i> var. <i>parryi</i>	Parry's spineflower	annual herb	1B.1	April–June	chaparral, cismontane woodland, coastal scrub, valley and foothill grassland	900–4,005	Absent. Survey area outside of the general distribution of the species (San Gabriel Mountains District and South Coast Subregion)
Angiosperms (Eudicots)	Polygonaceae	<i>Dodecahema leptoceras</i>	slender-horned spineflower	annual herb	1B.1; State listed as endangered; Federally listed as endangered	April–June	chaparral, cismontane woodland, coastal scrub	655–2,495	Low. Possibly extirpated 1893 CNDDDB occurrence located 2.7 miles southeast; 1937 possibly extirpated occurrence located 6.9 miles to the east.

Phylogenetic Category	Family	Scientific Name	Common Name	Lifeform	CRPR*; Listing Status	Blooming Period	Habitat	Elevation (feet amsl)	Potential To Occur
Angiosperms (Eudicots)	Polygonaceae	<i>Eriogonum evanidum</i>	vanishing wild buckwheat	annual herb	1B.1	July–October	chaparral, cismontane woodland, lower montane coniferous forest, pinyon and juniper woodland; sandy or gravelly	3,605–7,300	Absent. Survey area below elevational range of species.
Angiosperms (Eudicots)	Polygonaceae	<i>Mucronea californica</i>	California spineflower	annual herb	4.2	March–July (August)	chaparral, cismontane woodland, coastal dunes, coastal scrub, valley and foothill grassland; sandy	0–4,595	Absent. Survey area outside of the specie's general distribution (San Luis Obispo coast and base of the San Gabriels).
Angiosperms (Eudicots)	Ranunculaceae	<i>Delphinium parryi</i> ssp. <i>purpureum</i>	Mt. Pinos larkspur	perennial herb	4.3	May–June	chaparral, Mojavean desert scrub, pinyon and juniper woodland	3,280–8,530	Absent. Survey area below elevational range of species.
Angiosperms (Eudicots)	Rhamnaceae	<i>Ceanothus megacarpus</i> var. <i>insularis</i>	island ceanothus	perennial evergreen shrub	4.3	December–April	chaparral (sandy)	95–1,970	Absent. Perennial evergreen shrub would have been visible during August survey.
Angiosperms (Eudicots)	Rosaceae	<i>Cercocarpus betuloides</i> var. <i>blancheae</i>	island mountain-mahogany	perennial evergreen shrub	4.3	February–May	chaparral, closed-cone coniferous forest	100–1,970	Absent. Perennial evergreen shrub would have been visible during August survey.
Angiosperms (Eudicots)	Rosaceae	<i>Horkelia cuneata</i> var. <i>puberula</i>	mesa horkelia	perennial herb	1B.1	February–July (September)	chaparral, cismontane woodland, coastal scrub	230–2,660	Absent. Survey area outside of the generally coastal distribution of species.

Phylogenetic Category	Family	Scientific Name	Common Name	Lifeform	CRPR*; Listing Status	Blooming Period	Habitat	Elevation (feet amsl)	Potential To Occur
Angiosperms (Eudicots)	Rubiaceae	<i>Galium grande</i>	San Gabriel bedstraw	perennial deciduous shrub	1B.2	January–July	broad-leafed upland forest, chaparral, cismontane woodland, lower montane coniferous forest	1,390–4,920	Absent. Survey area below elevational range of species.
Angiosperms (Eudicots)	Solanaceae	<i>Physalis lobata</i>	lobed ground-cherry	perennial herb	2B.3	(May) September–January	Mojavean desert scrub, playas	1,640–2,625	Absent. Survey area below elevational range of species.
Angiosperms (Monocots)	Alliaceae	<i>Allium howellii</i> var. <i>clokeyi</i>	Mt. Pinos onion	perennial bulbiferous herb	1B.3	April–June	great basin scrub, meadows and seeps (edges), pinyon and juniper woodland	4,265–6,070	Absent. Survey area below elevational range of species.
Angiosperms (Monocots)	Juncaceae	<i>Juncus acutus</i> ssp. <i>leopoldii</i>	southwestern spiny rush	perennial rhizomatous herb	4.2	(March) May–June	coastal dunes, marshes and swamps, meadows and seeps	10–2,955	Absent. No suitable habitat on-site.
Angiosperms (Monocots)	Liliaceae	<i>Calochortus catalinae</i>	Catalina mariposa lily	perennial bulbiferous herb	4.2	(February) March–June	chaparral, cismontane woodland, coastal scrub, valley and foothill grassland	50–2,295	Low. Distribution generally closer to coast. 2010 CCG occurrence 8 miles southeast.
Angiosperms (Monocots)	Liliaceae	<i>Calochortus clavatus</i> var. <i>avius</i>	Pleasant Valley mariposa-lily	perennial bulbiferous herb	1B.2	May–July	lower montane coniferous forest	1,000–5,905	Absent. No suitable habitat on-site.

Phylogenetic Category	Family	Scientific Name	Common Name	Lifeform	CRPR*; Listing Status	Blooming Period	Habitat	Elevation (feet amsl)	Potential To Occur
Angiosperms (Monocots)	Liliaceae	<i>Calochortus clavatus</i> var. <i>clavatus</i>	club-haired mariposa lily	perennial bulbiferous herb	4.3	(March) May–June	chaparral, cismontane woodland, coastal scrub, valley and foothill grassland; clay, rocky, serpentinite (usually)	100–4,265	Moderate. Recent and near CCH occurrences (2011, 4.6 miles north; 2008, 6.3 miles northeast) occur in similar habitat (disturbed annual grasslands). 2015 Calflora record occurs 7.5 miles upstream in similarly disturbed habitat as present on survey area, associated with weedy species.
Angiosperms (Monocots)	Liliaceae	<i>Calochortus clavatus</i> var. <i>gracilis</i>	slender mariposa-lily	perennial bulbiferous herb	1B.2	March–June(November)	chaparral, coastal scrub, valley and foothill grassland	1,050–3,280	Moderate. Multiple recent CNDDDB records occur surrounding survey area in all directions, nearest from 2018 and 0.5 mile to the west, found on similar soils that are found in the survey area where not paved. Only moderate potential due to dominance of invasives within the potentially suitable habitat; however, <i>Bromus madritensis</i> ssp. <i>rubens</i> , <i>Centaurea melitensis</i> recorded in the records near survey area.

Phylogenetic Category	Family	Scientific Name	Common Name	Lifeform	CRPR*; Listing Status	Blooming Period	Habitat	Elevation (feet amsl)	Potential To Occur
Angiosperms (Monocots)	Liliaceae	<i>Calochortus fimbriatus</i>	late-flowered mariposa-lily	perennial bulbiferous herb	1B.3	June–August	chaparral, cismontane woodland, riparian woodland; serpentinite (sometimes)	900–6,250	Absent. Virtually all occurrences in vicinity occur in the western portion of the Jepson Geographic Western Transverse Ranges District. (Survey area outside of geographic distribution area)
Angiosperms (Monocots)	Liliaceae	<i>Calochortus palmeri</i> var. <i>palmeri</i>	Palmer's mariposa-lily	perennial bulbiferous herb	1B.2	April–July	chaparral, lower montane coniferous forest, meadows and seeps; mesic	2,330–7,840	Absent. Survey area below elevational range of species.
Angiosperms (Monocots)	Liliaceae	<i>Calochortus plummerae</i>	Plummer's mariposa-lily	perennial bulbiferous herb	4.2	May–July	chaparral, cismontane woodland, coastal scrub, lower montane coniferous forest, valley and foothill grassland; granitic, rocky	330–5,580	Moderate. 2014 CCH record 3.4 miles southeast of survey area, associated with <i>Hirschfeldia incana</i> , similar habitat within survey area. 2003 CCH record in sandy clay soil and recorded 3.9 miles upstream of Santa Clara River corridor associated with <i>Bromus madritensis rubens</i> , similar habitat within survey area.

Phylogenetic Category	Family	Scientific Name	Common Name	Lifeform	CRPR*; Listing Status	Blooming Period	Habitat	Elevation (feet amsl)	Potential To Occur
Angiosperms (Monocots)	Liliaceae	<i>Calochortus simulans</i>	La Panza mariposa lily	perennial bulbiferous herb	1B.3	April–June	chaparral, cismontane woodland, lower montane coniferous forest, valley and foothill grassland; sandy, often granitic, sometimes serpentinite	1,065–3,775	Absent. Only found in Outer South Coast Ranges District.
Angiosperms (Monocots)	Liliaceae	<i>Lilium humboldtii</i> ssp. <i>ocellatum</i>	ocellated Humboldt lily	perennial bulbiferous herb	4.2	March–July (August)	chaparral, cismontane woodland, coastal scrub, lower montane coniferous forest, riparian woodland	100–5,905	Absent. Vegetative foliage would have been visible during August survey.
Angiosperms (Monocots)	Poaceae	<i>Hordeum intercedens</i>	vernal barley	annual herb	3.2	March–June	coastal dunes, coastal scrub, valley and foothill grassland, vernal pools	15–3,280	Absent. Survey area outside of general distribution of the species.
Angiosperms (Monocots)	Poaceae	<i>Orcuttia californica</i>	California Orcutt grass	annual herb	1B.1; State listed as endangered; federally listed as endangered	April–August	vernal pools	50–2,165	Absent. No suitable habitat (vernal pools) on-site. CNDDDB record overlap; 5-mile accuracy.
Angiosperms (Monocots)	Poaceae	<i>Panicum hirticaule</i> ssp. <i>hirticaule</i>	roughstalk witch grass	annual herb	2B.1	August–December	desert dunes, Joshua tree woodland, Mojavean desert scrub, Sonoran desert scrub; sandy, silty, depressions	145–4,315	Absent. No suitable habitat on-site.

Phylogenetic Category	Family	Scientific Name	Common Name	Lifeform	CRPR*; Listing Status	Blooming Period	Habitat	Elevation (feet amsl)	Potential To Occur
Ferns	Azollaceae	<i>Azolla microphylla</i>	Mexican mosquito fern	annual / perennial herb	4.2	August	marshes and swamps (ponds, slow water)	95–330	Absent. Survey area above elevational range of species. No suitable habitat on-site.
Gymnosperms	Cupressaceae	<i>Hesperocyparis forbesii</i>	Tecate cypress	perennial evergreen tree	1B.1		closed-cone coniferous forest, chaparral; clay, gabbroic or metavolcanic	260–4,920	Absent. Perennial evergreen tree would have been visible during August survey.
Gymnosperms	Cupressaceae	<i>Hesperocyparis nevadensis</i>	Piute cypress	perennial evergreen tree	1B.2		closed-cone coniferous forest, chaparral, cismontane woodland, pinyon and juniper woodland	2,360–6,005	Absent. Survey area below elevational range of species.

*CRPR = California Rare Plant Rank
SWCA 2021

APPENDIX E

Special-Status Fauna – Potential for Occurrence

Table E-1. Results for Special-Status Wildlife with Potential for Occurrence within the Survey Area

Phylogenetic Category	Scientific Name	Common Name	Status	General Habitat	Microhabitat	Potential to Occur
Amphibians	<i>Anaxyrus californicus</i>	arroyo toad	FE; CDFW_SSC; IUCN_EN	Desert wash Riparian scrub Riparian woodland South coast flowing waters South coast standing waters	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. Because there are no quiet waters or pools directly in the survey area, the potential for arroyo toad within the survey area is low, although not impossible, as in one recorded case, a female arroyo toad traveled 919 feet across a campground into upland native habitat (USFWS 2014).
Amphibians	<i>Rana boylei</i>	foothill yellow-legged frog	SE; BLM_S, CDFW_SSC; IUCN_NT; USFS_S	Aquatic Chaparral Cismontane woodland Coastal scrub Klamath/North coast flowing waters Lower montane coniferous forest Meadow and seep Riparian forest Riparian woodland Sacramento/San Joaquin flowing waters	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. Needs at least 15 weeks to attain metamorphosis.	Absent. No suitable habitat within the survey area.
Amphibians	<i>Rana draytonii</i>	California red-legged frog	FT; CDFW_SSC; IUCN_VU	Aquatic Artificial flowing waters Artificial standing waters Freshwater marsh Marsh and swamp Riparian forest Riparian scrub Riparian woodland Sacramento/San Joaquin flowing waters Sacramento/San Joaquin standing waters South coast flowing waters South coast standing waters Wetland	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.	Absent. No suitable habitat within the survey area.

Phylogenetic Category	Scientific Name	Common Name	Status	General Habitat	Microhabitat	Potential to Occur
Amphibians	<i>Rana muscosa</i>	southern mountain yellow-legged frog	FE; SE; CDFW_WL; IUCN_EN; USFS_S	Aquatic	Federal listing refers to populations in the San Gabriel, San Jacinto and San Bernardino mountains (Southern Distinct Population Segment). Northern Distinct Population Segment was determined to warrant listing as endangered, April 2014, effective June 30, 2014; always encountered within a few feet of water. Tadpoles may require 2–4 years to complete their aquatic development.	Absent. No suitable habitat within the survey area.
Amphibians	<i>Spea hammondi</i>	western spadefoot	BLM_S; CDFW_SSC; IUCN_NT	Cismontane woodland Coastal scrub Valley and foothill grassland Vernal pool Wetland	Occurs primarily in grassland habitats, but can be found in valley-foothill hardwood woodlands; vernal pools are essential for breeding and egg-laying.	Low. Although 2013 CNDDDB record 0.24 mile east of survey area, no vernal pools on-site and very disturbed grassland dominated by invasives.
Amphibians	<i>Taricha torosa</i>	Coast Range newt	CDFW_SSC	N/A	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.	Absent. Survey area outside the geographical distribution of the species (known from base of San Gabriels).
Birds	<i>Accipiter cooperii</i>	Cooper's hawk	CDFW_WL	Cismontane woodland Riparian forest Riparian woodland Upper montane coniferous forest	Woodland, chiefly of open, interrupted or marginal type; Nest sites mainly in riparian growths of deciduous trees, as in canyon bottoms on river floodplains; also, live oaks.	Moderate. CNDDDB occurrence 1.6 miles to the east of survey area. Patch of cottonwood forest at the northern end of survey area suitable, as it is adjacent to willow scrub just like nearby occurrence record states. Cooper's hawks are fairly common and are tolerant of urban setting, where they prey on songbirds.
Birds	<i>Aimophila ruficeps canescens</i>	southern California rufous-crowned sparrow	CDFW_WL	Chaparral Coastal scrub	Resident in Southern California coastal sage scrub and sparse mixed chaparral; Frequents relatively steep, often rocky hillsides with grass and forb patches.	Absent. Survey area not steep and rocky as preferred by this species.

Phylogenetic Category	Scientific Name	Common Name	Status	General Habitat	Microhabitat	Potential to Occur
Birds	<i>Ammodramus savannarum</i>	grasshopper sparrow	CDFW_SSC; IUCN_LC	Valley and foothill grassland	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.	Absent. No suitable habitat on-site.
Birds	<i>Artemisiospiza belli belli</i>	Bell's sage sparrow	CDFW_WL-Watch List USFWS_BCC- Birds of Conservation Concern	Chaparral Coastal scrub	Nests in chaparral dominated by fairly dense stands of chamise. Found in coastal sage scrub in south of range; Nest located on the ground beneath a shrub or in a shrub 6–18 inches above ground. Territories about 50 yards apart.	Absent. No chamise on-site. Most prevalent near Lake Elsinore.
Birds	<i>Athene cunicularia</i>	burrowing owl	BLM_S, CDFW_SSC; IUCN_LC; USFWS_BCC	Coastal prairie Coastal scrub Great Basin grassland Great Basin scrub Mojavean desert scrub Sonoran desert scrub Valley and foothill grassland	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.	Low. Year 2007 CNDDDB occurrence 1.6 miles north of survey area. Foraging area degraded especially in project disturbance area (paved).
Birds	<i>Buteo swainsoni</i>	Swainson's hawk	ST; BLM_S, IUCN_LC; USFWS	Great Basin grassland Riparian forest Riparian woodland Valley and foothill grassland	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. Nearest CNDDDB occurrence Possibly Extirpated and from 1898, 1.75 miles south of survey area. Known from Mojave Desert.
Birds	<i>Coccyzus americanus occidentalis</i>	western yellow-billed cuckoo	FT; SE; BLM_S, NABCI_RWL; USFS_S; USFWS_BCC	Riparian forest	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, nettles, or wild grape.	Low. No 2012 CNDDDB record 1.8 miles downstream of Santa Clara River found in California sagebrush; not present on survey area. Suitable habitat may be present directly adjacent to site.

Phylogenetic Category	Scientific Name	Common Name	Status	General Habitat	Microhabitat	Potential to Occur
Birds	<i>Elanus leucurus</i>	white-tailed kite	BLM_S, CDFW_FP IUCN_LC	Cismontane woodland Marsh and swamp Riparian woodland Valley and foothill grassland Wetland	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.	Moderate. 2005 CNDDB occurrence record 260 feet north of survey area. Nests in cottonwoods; suitable cottonwood-willow riparian forest habitat in northern portion of 100-foot buffer to the project disturbance area and north of survey area.
Birds	<i>Eremophila alpestris actia</i>	California horned lark	CDFW_WL-Watch List IUCN_LC	Marine intertidal and splash zone communities Meadow and seep	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.	Absent. No suitable habitat within the survey area.
Birds	<i>Falco mexicanus</i>	prairie falcon	CDFW_WL-Watch List IUCN_LC; USFWS_BCC	Great Basin grassland Great Basin scrub Mojavean desert scrub Sonoran desert scrub Valley and foothill grassland	Inhabits dry, open terrain, either level or hilly. Breeding sites located on cliffs. Forages far afield, even to marshlands and ocean shores.	Low. May forage on-site; No cliffs within survey area.
Birds	<i>Gymnogyps californianus</i>	California condor	FE; SE; CDF_S; CDFW_FP; IUCN_CR; NABCI_RWL	Chaparral Valley and foothill grassland	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.	Absent. Urban location likely precludes this species from occurring. No suitable habitat on-site.
Birds	<i>Icteria virens</i>	yellow-breasted chat	CDFW_SSC; IUCN_LC;	Riparian forest Riparian scrub Riparian woodland	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 feet of ground.	Absent. Survey area outside the geographical distribution of the species.
Birds	<i>Lanius ludovicianus</i>	loggerhead shrike	CDFW_SSC; IUCN_LC; USFWS_BCC	Broadleaved upland forest Desert wash Joshua tree woodland Mojavean desert scrub Pinon and juniper woodlands Riparian woodland Sonoran desert scrub	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. Nearest occurrence is 4.3 miles north of survey area, at higher elevation than survey area and from 2005.

Phylogenetic Category	Scientific Name	Common Name	Status	General Habitat	Microhabitat	Potential to Occur
Birds	<i>Polioptila californicalifornica</i>	coastal California gnatcatcher	FT; CDFW_SSC; NABCI_YWL	Coastal bluff scrub Coastal scrub	Obligate, permanent resident of coastal sage scrub below 2500 feet in Southern California. Low, coastal sage scrub in arid washes, on mesas and slopes. Not all areas classified as coastal sage scrub are occupied.	Low. CNDDDB record 1.7 miles to the west, in California sagebrush habitat. No suitable habitat on-site.
Birds	<i>Riparia riparia</i>	bank swallow	ST; BLM_S, IUCN_LC	Riparian scrub Riparian woodland	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.	Absent. Nearest occurrence over 13 miles away from 1897 and extirpated. Surrounding occurrences are also extirpated.
Birds	<i>Setophaga petechia</i>	yellow warbler	CDFW_SSC; USFWS_BCC	Riparian forest Riparian scrub Riparian woodland	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.	Low. Nearest occurrence from 1979, 7.3 miles west of survey area. Appropriate habitat located adjacent to survey area, but not within.
Birds	<i>Vireo bellii pusillus</i>	least Bell's vireo	FE; SE; IUCN_NT; NABCI_YWL	Riparian forest Riparian scrub Riparian woodland	Summer resident of Southern California in low riparian areas in the vicinity of water or in dry river bottoms; below 2,000 feet. Nests placed along margins of bushes or on twigs projecting into pathways, usually willow, Baccharis, mesquite.	Moderate. 2016 and 2010 CNDDDB records 0.9–1.2 miles north of survey area. Observed in Mulefat Scrub bordered by Fremont Cottonwood Forest and Woodland. Suitable habitat on-site.
Crustaceans	<i>Branchinecta lynchi</i>	vernal pool fairy shrimp	FT; IUCN_VU	Valley and foothill grassland Vernal pool Wetland	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.	Absent. No vernal pools within survey area. No suitable habitat on-site.

Phylogenetic Category	Scientific Name	Common Name	Status	General Habitat	Microhabitat	Potential to Occur
Fish	<i>Catostomus santaanae</i>	Santa Ana sucker	FT; AFS_TH; IUCN_VU	Aquatic South coast flowing waters	Endemic to Los Angeles Basin south coastal streams. Habitat generalists, but prefer sand-rubble-boulder bottoms, cool, clear water, and algae.	Absent. No flowing water on-site. 2007 CNDDDB occurrence buffer overlap in northwestern corner of 100-foot disturbance area buffer.
Fish	<i>Gasterosteus aculeatus williamsoni</i>	unarmored threespine stickleback	FE; SE; AFS_EN; CDFW_FP	Aquatic South coast flowing waters	Weedy pools, backwaters, and among emergent vegetation at the stream edge in small Southern California streams. Cool (<24 degrees Celsius), clear water with abundant vegetation.	Absent. Entirely aquatic species, no habitat within survey area.
Fish	<i>Gila orcuttii</i>	arroyo chub	AFS_VU; CDFW_SSC; USFS_S	Aquatic South coast flowing waters	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.	Absent. Entirely aquatic species, no habitat within survey area.
Fish	<i>Rhinichthys osculus ssp. 8</i>	Santa Ana speckled dace	AFS_TH; CDFW_SSC; USFS_S	Aquatic South coast flowing waters	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 degrees Celsius. Usually inhabits shallow cobble and gravel riffles.	Absent. Entirely aquatic species, no habitat within survey area.
Insects	<i>Bombus crotchii</i>	Crotch bumble bee	SCE	N/A	Coastal California east to the Sierra-Cascade crest and south into Mexico. Food plant genera include <i>Antirrhinum</i> , <i>Phacelia</i> , <i>Clarkia</i> , <i>Dendromecon</i> , <i>Eschscholzia</i> , and <i>Eriogonum</i> .	Low. Surrounding CNDDDB occurrences are 2.4–6.5 miles and from 1960s and 1970s. <i>Phacelia</i> and <i>Eriogonum</i> on-site but habitat is marginal. Nesting and overwintering habitat may be present.

Phylogenetic Category	Scientific Name	Common Name	Status	General Habitat	Microhabitat	Potential to Occur
Insects	<i>Danaus plexippus</i> <i>pop. 1</i>	monarch - California overwintering population	FC; USFS_S	Closed-cone coniferous forest	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.	Absent. Closed-cone coniferous forest not within survey area.
Insects	<i>Euphydryas editha</i> <i>quino</i>	quino checkerspot butterfly	FE	Chaparral Coastal scrub	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 <i>Plantago erecta</i> , <i>P. insularis</i> , and <i>Orthocarpus purpurescens</i> .	Absent. 1920 CNDDDB occurrence 6.7 miles to the east of survey area, extirpated.
Mammals	<i>Antrozous pallidus</i>	pallid bat	BLM_S, CDFW_SSC; IUCN_LC; USFS_S; WBWG_H	Chaparral Coastal scrub Desert wash Great Basin grassland Great Basin scrub Mojavean desert scrub Riparian woodland Sonoran desert scrub Upper montane coniferous forest Valley and foothill grassland	Deserts, grasslands, shrublands, woodlands and forests. Most common in open, dry habitats with rocky areas for roosting. Roosts must protect bats from high temperatures. Very sensitive to disturbance of roosting sites.	Low. Nearest CNDDDB occurrences from 1938 and 1942 4–20 miles north and east. Overpass nearby (Highway 5 and Magic Mountain Parkway) providing nearby roosting habitat.
Mammals	<i>Corynorhinus townsendii</i>	Townsend's big-eared bat	BLM_S, CDFW_SSC; IUCN_LC; USFS_S; WBWG_H	Broadleaved upland forest Chaparral Chenopod scrub Great Basin grassland Great Basin scrub Joshua tree woodland Lower montane coniferous forest Meadow and seep Mojavean desert scrub Riparian forest Riparian woodland Sonoran desert scrub Sonoran thorn woodland Upper montane coniferous forest Valley and foothill grassland	Throughout California in a wide variety of habitats. Most common in mesic sites. Roosts in the open, hanging from walls and ceilings. Roosting sites limiting. Extremely sensitive to human disturbance.	Low. Nearest CNDDDB occurrence record is from 1942 and 10.8 miles east of survey area. Hiking through survey area common with the bike/hike path, unlikely to occur as very sensitive to human disturbance. Overpass nearby (Highway 5 and Magic Mountain Parkway) providing nearby roosting habitat.
Mammals	<i>Euderma maculatum</i>	spotted bat	BLM_S, CDFW_SSC; IUCN_LC; WBWG_H	N/A	Occupies a wide variety of habitats from arid deserts and grasslands through mixed conifer forests. Feeds over water and along washes. Feeds almost entirely on moths. Needs rock crevices in cliffs or caves for roosting.	Low. CNDDDB occurrence 2 miles northwest of survey area, from 1890. Historical. Overpass nearby (Highway 5 and Magic Mountain Parkway) providing nearby roosting habitat.

Phylogenetic Category	Scientific Name	Common Name	Status	General Habitat	Microhabitat	Potential to Occur
Mammals	<i>Eumops perotis californicus</i>	western mastiff bat	BLM_S, CDFW_SSC; WBWG_H	Chaparral Cismontane woodland Coastal scrub Valley and foothill grassland	Many open, semi-arid to arid habitats, including conifer and deciduous woodlands, coastal scrub, grasslands, chaparral, etc. Roosts in crevices in cliff faces, high buildings, trees and tunnels.	Low. Nearest occurrence 5.2 miles southwest from 1992, presumed extant. Overpass nearby (Highway 5 and Magic Mountain Parkway) providing nearby roosting habitat.
Mammals	<i>Lasiurus cinereus</i>	hoary bat	IUCN_LC; WBWG_M	Broadleaved upland forest Cismontane woodland Lower montane coniferous forest North coast coniferous forest	Prefers open habitats or habitat mosaics, with access to trees for cover and open areas or habitat edges for feeding. Roosts in dense foliage of medium to large trees. Feeds primarily on moths. Requires water.	Low. Nearest occurrence 11 miles southeast and from 1994. Overpass nearby (Highway 5 and Magic Mountain Parkway) providing nearby roosting habitat.
Mammals	<i>Lepus californicus bennettii</i>	San Diego black-tailed jackrabbit	CDFW_SSC	Coastal scrub	Intermediate canopy stages of shrub habitats and open shrub / herbaceous and tree / herbaceous edges. Coastal sage scrub habitats in Southern California.	Low. Recent 2015 CNDDDB record 7.6 miles east of survey area. Notes say sightings in and near the Santa Clara River main channel, and in former pasture with nonnative plants dominant formerly used as farmland. This closely resemble habitat present within the survey area, but record is distant.
Mammals	<i>Macrotus californicus</i>	California leaf-nosed bat	BLM_S, CDFW_SSC; IUCN_LC; WBWG_H	Riparian scrub Sonoran desert scrub	Desert riparian, desert wash, desert scrub, desert succulent scrub, alkali scrub and palm oasis habitats. Needs rocky, rugged terrain with mines or caves for roosting.	Absent. Survey area not rocky. Sandy substrate. Closest thing to caves is the Highway 5 overpass adjacent to survey area.
Mammals	<i>Neotamias speciosus speciosus</i>	lodgpole chipmunk		Chaparral Upper montane coniferous forest	Summits of isolated Piute, San Bernardino, and San Jacinto mountains. Usually found in open-canopy forests. Habitat is usually lodgepole pine forests in the San Bernardino Mts and chinquapin slopes in the San Jacinto Mts.	Absent. Survey area lower than elevational range of the species.

Phylogenetic Category	Scientific Name	Common Name	Status	General Habitat	Microhabitat	Potential to Occur
Mammals	<i>Neotoma lepida intermedia</i>	San Diego desert woodrat	CDFW_SSC	Coastal scrub	Coastal scrub of Southern California from San Diego County to San Luis Obispo County. Moderate to dense canopies preferred. They are particularly abundant in rock outcrops, rocky cliffs, and slopes.	Low. Nearest record distant at 6.2 miles south of survey area from 1992. Survey area not rocky, although dense with mulefat shrub. Most occurrences on coast and south of the San Gabriels.
Mammals	<i>Onychomys torridus ramona</i>	southern grasshopper mouse	CDFW_SSC	Chenopod scrub	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.	Absent. Nearest records are distant and historic. From year 1904 and 1930, 12 miles and 17 miles east.
Mammals	<i>Taxidea taxus</i>	American badger	CDFW_SSC; IUCN_LC	Alkali marsh Alkali playa Alpine Alpine dwarf scrub Bog and fen Brackish marsh Broadleaved upland forest Chaparral Chenopod scrub Cismontane woodland Closed-cone coniferous forest Coastal bluff scrub Coastal dunes Coastal prairie Coastal scrub Desert dunes Desert wash Freshwater marsh Great Basin grassland Great Basin scrub Interior dunes lone formation Joshua tree woodland Limestone Lower montane coniferous forest Marsh and swamp Meadow and seep Mojavean desert scrub Montane dwarf scrub North coast coniferous forest Oldgrowth Pavement plain Redwood Riparian forest Riparian scrub Riparian woodland Salt marsh Sonoran desert scrub Sonoran thorn woodland Ultramafic Upper montane coniferous forest Upper Sonoran scrub Valley and foothill grassland	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. 2015 CNDDB occurrence 0.7 mile west of survey area, was found in sagebrush scrub; no suitable sagebrush scrub on-site. May be suitable foraging area with woodrat middens.

Phylogenetic Category	Scientific Name	Common Name	Status	General Habitat	Microhabitat	Potential to Occur
Mollusks	<i>Helminthoglypta fontiphila</i>	Soledad shoulderband		N/A	Air-breathing terrestrial snail. Known from type locality, Little Rock Creek Cyn on north side of San Gabriels; west to Santa Clarita in Soledad Cyn; east to the vicinity of Big Rock Creek; and north to Elizabeth Lake Cyn in the Sierra Pelona Mtns. Frequently found in riparian habitat (springs, seeps, along streams). May be found in rock piles, flood-borne debris, or under dead yuccas where other cover is not available.	Low. CNDDDB occurrence from 1921 2.1 miles northwest of survey area. Survey area too xeric; area adjacent (riparian) area may be suitable though.
Mollusks	<i>Helminthoglypta traskii pacoimensis</i>	Pacoima shoulderband		N/A	Air-breathing terrestrial snail. Known from type locality, Pacoima Canyon on the west side of the San Gabriel Mountains. Additional specimens from Elizabeth Lake Canyon in the Sierra Pelona Mountains may merit review. Found mostly under bark and fragments of rotten logs.	Absent. No rotten logs on-site. CNDDDB shows a year 1944 record 4.4 miles to the north and a year 1960 record 12.1 miles to the southeast. Both historic and distant.
Mollusks	<i>Helminthoglypta uvasana</i>	Grapevine shoulderband		N/A	Air-breathing terrestrial snail. Known from type locality along Grapevine Creek in Castaic Valley, in the vicinity of Fort Tejon. Additional historical specimen from about 21 miles south-southeast of type locality, Oak Flat Ranger Station. Found under downed oak logs in leaf litter, in brush, and in woodrat nests; among valley oak, nettle and poison oak in valley oak woodland grading to chaparral.	Low. Nearest record 14 miles to the north and from 1941. Both distant and historic. woodrat nests are present on-site and may be suitable habitat.
Reptiles	<i>Anniella spp.</i>	California legless lizard	CDFW_SSC	N/A	Contra Costa County south to San Diego, within a variety of open habitats. This element represents California records of <i>Anniella</i> not yet assigned to new species within the <i>Anniella pulchra</i> complex. Variety of habitats; generally in moist, loose soil. They prefer soils with a high moisture content.	Low. 2011 CNDDDB occurrence record 1.5 miles upstream of Santa Clara River. Moisture content of soil on-site low; not suitable.

Phylogenetic Category	Scientific Name	Common Name	Status	General Habitat	Microhabitat	Potential to Occur
Reptiles	<i>Arizona elegans occidentalis</i>	California glossy snake	CDFW_SSC	N/A	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. Project disturbance area is heavily disturbed from use as prior farmland and currently paved state. Low chance of occurring in 100-foot buffer area due to fragmentation and habitat dominated by invasives. 1946 CNDDDB occurrence overlapping project area; 1-mile accuracy.
Reptiles	<i>Aspidoscelis tigris stejnegeri</i>	coastal whiptail	CDFW_SSC	N/A	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.	Moderate. 2015 and 2016 records 0.7 to 1 miles away, both west and northeast. One records states observed in bike path adjacent to road; bike path runs through the survey area with adjacent riparian area and south side of 100-foot project disturbance area buffer is semi-arid, as this species prefers.
Reptiles	<i>Emys marmorata</i>	western pond turtle	BLM_S; CDFW_SSC; IUCN_VU; USFS_S	Aquatic Artificial flowing waters Klamath/North coast flowing waters Klamath/North coast standing waters Marsh and swamp Sacramento/San Joaquin flowing waters Sacramento/San Joaquin standing waters South coast flowing waters South coast standing waters Wetland	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.	Moderate. 2015 CNDDDB record only 0.4 mile downstream. Open river channel is adjacent to survey area. Because they can travel upland habitat up to 0.31 miles from water for egg-laying, north portions of the 100-foot buffer of the project disturbance area may be suitable. Project disturbance area not suitable because mostly paved.

Phylogenetic Category	Scientific Name	Common Name	Status	General Habitat	Microhabitat	Potential to Occur
Reptiles	<i>Phrynosoma blainvillii</i>	coast horned lizard	BLM_S, CDFW_SSC; IUCN_LC	Chaparral Cismontane woodland Coastal bluff scrub Coastal scrub Desert wash Pinon and juniper woodlands Riparian scrub Riparian woodland Valley and foothill grassland	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.	Moderate. This horned lizard is most associated with open scrub and grassland habitats that support friable soils. None were found during the field surveys. They feed almost exclusively on harvester ants (<i>Pogonomyrmex</i> spp.) which have been found on-site in low numbers. 2015 CNDDDB record 0.7 mile west of survey area.
Reptiles	<i>Thamnophis hammondi</i>	two-striped gartersnake	BLM_S, CDFW_SSC; IUCN_LC; USFS_S	Marsh and swamp Riparian scrub Riparian woodland Wetland	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.	Absent. Survey area not rocky and no fresh water within survey area. No suitable habitat.

N/A = not applicable

FE = Federally listed as endangered

FT = Federally listed as threatened

SE = State listed as endangered

ST = State listed as threatened

SCE = State candidate for listing as endangered

BLM_S = Bureau of Land Management – Sensitive

CDFW_SSC = CDFW – Species of Special Concern

CDFW_FP = CDFW – Fully Protected

CDFW_WL = CDFW – Watch List

CDF_S = California Department of Forestry and Fire Protection – Sensitive

IUCN_LC = International Union for Conservation of Nature (IUCN) – Least Concern

IUCN_NT = IUCN – Near Threatened

IUCN_VU = IUCN – Vulnerable

IUCN_EN = IUCN – Endangered

IUCN_CR = IUCN – Critically Endangered

USFS_S = U.S. Forest Service – Sensitive

USFWS_BCC = USFWS Birds of Conservation Concern

WBWG_H = Western Bat Working Group – High Priority

WBWG_M = Western Bat Working Group – Medium Priority

AFS_EN = American Fisheries Society – Endangered

AFS_TH = American Fisheries Society – Threatened

AFS_VU = American Fisheries Society – Vulnerable

NABCI_YWL = North American Bird Conservation Initiative – Yellow Watch List

NABCI_RWL = North American Bird Conservation Initiative – Red Watch List

**APPENDIX D: CULTURAL RESOURCES ASSESSMENT FOR
BACKCOUNTRY PUMP STATION**

Cultural Resources Survey for the Santa Clarita Valley Water Agency Pump Station Project Letter Report

TECHNICAL MEMORANDUM

November 5, 2022

Jennifer Ziv
Woodard & Curran
24422 Avenida de la Carlota
Suite 180
Laguna Hills, CA 92653

Re: Cultural Resources Survey for the Santa Clarita Valley Water Agency Backcountry Pump Station Project Letter Report / SWCA Project No. 62466

Dear Ms. Ziv:

At the request of Woodard & Curran, SWCA Environmental Consultants (SWCA) completed a cultural resources survey for the proposed Santa Clarita Valley (SCV) Water Agency Backcountry Pump Station Project (Project) in Santa Clarita, California. The purpose of the project is to construct a new pump station that would supply water to the proposed Backcountry Reservoir located within the Mission Village development. This study was completed under the provisions of the California Environmental Quality Act (CEQA), including Public Resources Code (PRC) Section 5024.1, Section 15064.5 of the Guidelines, and Sections 21083.2 and 21084.1 of the Statutes of CEQA (Governor's Office of Planning and Research 1998). PRC Section 5024.1 requires the identification and evaluation of historical resources that may be affected by a proposed project. The SCV Water Agency is the lead agency.

The following report documents the methods and results of a Sacred Lands File (SLF) search through the California Native American Heritage Commission (NAHC), a review of site records and reports at the California Historical Resources Information System (CHRIS), Native American outreach, and an intensive pedestrian survey. The purpose of this study is to determine whether cultural resources are located or are likely to be encountered in the Project area, and to aid in avoiding effects to these resources during Project implementation.

STAFF QUALIFICATIONS

This report was prepared by SWCA archaeologists Michelle Courtney, B.S., David K. Sayre, B.A., and Maia Matheu, B.A. Ms. Matheu conducted the archaeological survey for the project. Matthew Behrend, M.A., Registered Professional Archaeologist (RPA), and Heather Gibson, Ph.D., RPA, acted as Principal Investigator. SWCA's principal investigator meets the requirements of the Secretary of the Interior's Professional Qualification Standards in Archeology (National Park Service [NPS] 1983).

Cultural Resources Survey for the Santa Clarita Valley Water Agency Pump Station Project Letter Report

PROJECT DESCRIPTION

The proposed project consists of the two main elements: the Backcountry Pump Station and the Magic Mountain Pipeline. The Backcountry Pump Station would be located within the incorporated boundaries of the city of Santa Clarita, north of Magic Mountain Parkway, south of the Santa Clara River, approximately 0.5 mile east of Interstate 5 (Figure A-1). The Backcountry Pump Station site is approximately 2 miles east/north-east of the site for the Backcountry Reservoir. The Magic Mountain Pipeline follows Magic Mountain Parkway and passes partially through the pump station site. The project area is in Township 4 North, Range 17 West, as depicted on the U.S. Geological Survey (USGS) Newhall, California, 7.5-minute topographic quadrangle (Figure A-2).

The pump station site would include a pump building, flow control and pressure reducing station, emergency backup generator, fuel tank, and electrical transformer pad. The pump building would house the required mechanical and electrical equipment and would space for up to four 450 horsepower pumps. The overall dimension of the pump station site is approximately 268 feet by 140 feet. The pump building would be constructed with concrete masonry unit (CMU) block walls, with dimensions of approximately 100 feet by 66 feet, for a total footprint of approximately 6,600 square feet.

The access road and area surrounding the pump station would be paved with asphalt or concrete, and designed consistent with fire code, including, a minimum of 25 feet of clearance provided around the pump station building.

A diesel backup generator would be installed in a generator room within the pump building. Fuel for the backup generator would be stored in two tanks (one 7,000 gallons and one 300 gallons). The fuel tanks would be installed within containment walls and would be located outside the pump building.

The existing entrance gate from Magic Mountain Parkway, which is 26 feet wide, would remain in place and could accommodate various vehicles during construction and operation of the pump station. Perimeter fencing would be installed around the pump station and lighting at the pump station would be minimal. Landscaping, which would surround the property to provide privacy and to soften views of the pump station.

The proposed project also includes a turnout (V-9 Turnout Facility) that would be located at the Backcountry Pump Station site at the 42-inch discharging pipe. The V-9 turnout would include pressure and flow control valves, as well as a flow meter. From the V-9 Turnout facility two distribution pipelines would be constructed in Magic Mountain Parkway to tie into existing distribution mains. Specifically, a 16-inch distribution pipeline would extend approximately 1,920 feet in Magic Mountain Parkway to tie into the existing 16-inch main in Tourney Road to serve Zone 1, and a 24-inch distribution pipeline would extend approximately 1,487 feet in Magic Mountain Parkway to tie into the existing 16-inch main in Wayne Mills Place to serve Zone IIA-N.

PROJECT LOCATION

The proposed Project is located within the City of Santa Clarita in Los Angeles County on private lands (Figure 1). The Project area is located in an open space, approximately 10 meters from Magic Mountain Parkway (Figure 2). The Project area is in Township 4 North, Range 16 West as depicted on the U.S. Geological Survey (USGS) Newhall, California, 7.5-minute topographic quadrangle (Figure 3).

REGULATORY FRAMEWORK

State Regulations and Requirements

California Environmental Quality Act

The cultural resources investigation for this Project is consistent with compliance procedures set forth in CEQA. Sections 21083.2 and 21084.1 of the Statutes of CEQA and Public Resources Code (PRC) Section 5024.1, Section 15064.5 of the State CEQA Guidelines, were also used as the guidelines for the cultural resources study (Governor’s Office of Planning and Research 2014). PRC Section 5024.1 requires that any properties that can be expected to be directly or indirectly affected by a proposed project be evaluated for California Register of Historical Resources (CRHR) eligibility. The purpose of the register is to maintain listings of the state’s historical resources and to indicate what properties are to be protected, to the extent prudent and feasible, from material impairment and substantial adverse change. The term “historical resources” includes a resource listed in, or determined to be eligible for listing in, the CRHR, a resource included in a local register of historical resources, and any object, building, structure, site, area, place, record, or manuscript which a lead agency determines to be historically significant (Section 15064.5[a] of the State CEQA Guidelines). The criteria for listing properties in the CRHR were expressly developed in accordance with previously established criteria developed for listing in the NRHP. According to PRC Section 5024.1(c)(1–4), a resource may be considered historically significant if it retains integrity and meets at least one of the following criteria. A property may be listed in the CRHR if the resource:

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 installation, 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.

Under CEQA, if an archeological site is not a historical resource but meets the definition of a “unique archeological resource” as defined in PRC Section 21083.2, then it should be treated in accordance with the provisions of that section. A *unique archaeological resource* is defined as follows:

An archaeological artifact, object, or site about which it can be clearly demonstrated that, without merely adding to the current body of knowledge, there is a high probability that it meets any of the following criteria:

1. Contains information needed to answer important scientific research questions and that there is a demonstrable public interest in that information.
2. Has a special and particular quality such as being the oldest of its type or the best available example of its type.
3. Is directly associated with a scientifically recognized important prehistoric or historic event or person.

Resources that neither meet any of these criteria for listing on the CRHR nor qualify as a “unique archaeological resource” under CEQA PRC Section 21083.2 are viewed as not significant. Under CEQA, “A nonunique archaeological resource need be given no further consideration, other than the simple recording of its existence by the lead agency if it so elects” (PRC Section 21083.2[h]).

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Impacts that adversely alter the significance of a resource listed in or eligible for listing in the CRHR are considered a significant effect on the environment. Impacts to historical resources from the proposed Project are thus considered significant if the Project physically destroys or damages all or part of a resource, changes the character of the use of the resource or physical feature within the setting of the resource which contribute to its significance or introduces visual, atmospheric, or audible elements that diminish the integrity of significant features of the resource.

California Health and Safety Code Section 7050.5

California Health and Safety Code Section (HSC) 7050.5 requires that further excavation or disturbance of land, upon discovery of human remains outside of a dedicated cemetery, cease until a county coroner makes a report. It requires a county coroner to contact the Native American Heritage Commission (NAHC) within 24 hours if the coroner determines that the remains are not subject to his or her authority and if the coroner recognizes the remains to be those of Native American origin.

California Health and Safety Code Section 7052

HSC 7052 states that the willful mutilation, disinterment, or removal from the place of interment of any remains known to be human without the authority of law is a felony.

California Public Resources Code Section 5097.98

The Project is subject to California Public Resources Code (PRC) Section 5097.98, which states that if a county coroner notifies the NAHC that human remains are Native American and outside the coroner's jurisdiction per HSC Section 7050.5, the NAHC must designate and notify a Most Likely Descendant (MLD). The MLD shall complete the inspection of the site within 48 hours of notification and may recommend scientific removal and nondestructive analysis of human remains and items associated with Native American burials.

Local Regulations**City of Santa Clarita General Plan**

The City of Santa Clarita complies with the preservation measures put forth in CEQA for cultural resources. The policies, mitigation measures, and management strategies employed by the City of Santa Clarita for cultural resources are provided below. These policies and mitigation measures are located within Chapter 5 of the General Plan, as well as incorporated in the Preservation of Natural Resources policies and Goals of the Open Space and Conservation Element.

- Policy 10.1 to promote the preservation and rehabilitation of significant historic structures and architectural amenities through implementation of the Historic Preservation/Cultural Resources Ordinance.
- Policy 10.2 which considers relocation of valuable historic structures to Heritage Park whenever they are unavoidably endangered by incompatible development.
- Policy 10.3 to continue to support implementation programs established by the Santa Clarita Historical Society and others to identify and preserve historical sites.
- Policy 10.4 to establish development guidelines to identify and preserve significant archeological sites.
- Policy 10.5 to integrate historic sites with recreational and open space areas whenever possible.
- Policy 10.6 to incorporate historic sites into proposed development whenever possible in such a manner as to preserve the integrity of the site whenever possible.

*Cultural Resources Survey for the Santa Clarita Valley Water Agency Pump Station Project Letter Report***One Valley One Vision General Plan**

The One Valley One Vision General Plan (OVOVGP) identifies goals, objectives, and policies pertaining to historical resources and archeological resources. These goals, objectives, and policies are identified below.

1. Goal CO 5: Protection of historical and culturally significant resources that contribute to community identity and a sense of history.
 - a. Objective CO 5.2: Protect and enhance the historic character of Downtown Newhall.
 - i. Policy CO 5.2.1: In keeping with the Downtown Newhall Specific Plan policies, ensure that the scale and character of new development is compatible with and does not detract from the context of historic buildings and block patterns.
 - ii. Policy CO 5.2.3: Ensure that all aspects of community design in Newhall, including street furniture, lighting, trash collection and storage areas, seating, and other accessory structures, are of a design and scale appropriate for the historic character of the district, while maintaining a sense of authenticity.
 - b. Objective CO 5.3: Encourage conservation and preservation of Native American cultural places, including prehistoric, archaeological, cultural, spiritual, and ceremonial sites on both public and private lands, throughout all stages of the planning and development process.
 - i. Policy CO 5.3.2: For any proposed development project that may have a potential impact on Native American cultural resources, provide notification to California Native American tribes on the contact list maintained by the Native American Heritage Commission that have traditional lands located within the City's jurisdiction, and consider the input received in the development decision.
 - ii. Policy CO 5.3.3: Review and consider a cultural resources study for any new grading or development in areas identified as having a high potential for Native American resources, and incorporate recommendations into the project approval as appropriate to mitigate impacts to cultural resources

Santa Clarita Municipal Code

The Property Development Standards of the City of Santa Clarita includes the requirement that all historical points of interest, as identified in the Open Space and Conservation Element of the Santa Clarita General Plan, shall be shown on site plans. Any development that would detrimentally affect the historical point of interest shall comply with the requirements of City, state, and federal law.

The purpose of the Historic Preservation Review is to promote the economic and general welfare of the City of Santa Clarita by preserving and protecting public and private historic, cultural, and natural resources which are of special historic or aesthetic character or interest, or relocating such resources where necessary for their preservation and for their use, education, and view by the general public.

Through historic preservation review, the Director of Community Development shall ensure that the Project complies with all of the provisions of the Unified Development Code, the General Plan, specific plans and other legislative planning documents.

ENVIRONMENTAL AND CULTURAL SETTING**Environmental Setting**

The Project area is situated in the San Gabriel Mountains, which are characterized by rugged hills and canyons with some more gently sloping hills and valleys. The Project area is adjacent to Magic Mountain Parkway, approximately 0.4 mile east of Interstate 5, and approximately 130 feet south of the riparian area of the Santa Clara River. A diverse community of wildlife, including coyotes, mule deer, bobcats, raccoons, and skunks as well as numerous smaller species—such as rabbits, squirrels, rats, mice, and other rodent species—are present in the San Gabriel Mountains (Mountains Recreation & Conservation Authority

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2020). Local vegetation communities include chaparral, Joshua Tree woodland, and sagebrush scrub community (NPS 2011).

Cultural Setting

Prehistoric Overview

California prehistory is typically divided into three broad temporal periods that reflect similar cultural characteristics throughout the state: Paleoindian Period (ca. 9000–6000 B.C.), Archaic Period (6000 B.C.–A.D. 500), and Emergent or Late Prehistoric Period (A.D. 500–Historic Contact) (Fredrickson 1973, 1974, 1994). The Archaic is further divided into Lower (6000–3000 B.C.), Middle (3000–1000 B.C.), and Upper (1000 B.C.–A.D. 500) Periods, generally governed by climatic and environmental variables, such as the drying of pluvial lakes at the transition from the Paleoindian to the Lower Archaic.

In southern California, researchers attempting to define local or sub-regional traditions have created numerous cultural chronologies using various nomenclatures (Moratto 1984). Building on early studies and focusing on data synthesis, Wallace (1955, 1978) and others developed various prehistoric chronologies for the southern California coastal region that remain in use today. In general, most recent synthesis of the prehistory of the region include the following periods:

- Paleo-Indian Period/Terminal Pleistocene (12,000 – 10,000 Before Present [B.P.])
- Early Archaic Period/Early Holocene (10,000 to 8,000 B.P.)
- Middle Archaic or Milling Stone Period/Middle Holocene (8,000 to 3,000 B.P.)
- Late Archaic/Late Holocene (3,000 to 1,350 B.P.)
- Late Prehistoric Period/Late Holocene (1,350 B.P. to Spanish Contact [A.D. 1769])

These periods are demarcated by various changes in prehistoric lifeways, including changes in tools and technologies, subsistence practices, settlement locations and settlement organization, population size, social interactions, and other archaeological indicators.

Ethnographic Overview

The Project area lies at the approximate intersection of two ethnographic groups: Tataviam and Gabrielino. Below is a brief summary of the two groups.

TATAVIAM

The Tataviam traditional territories include the upper reaches of the Santa Clara River drainage east of Piru Creek and encompassed the Sawmill Mountains to the north and the southwestern portion of the Antelope Valley. There are different hypotheses in regard to the affiliation of the Tataviam language. Scholars hypothesize that the Tataviam may have spoken a language that was uncommonly used in Southern California, or that they may have spoken a Takic language like their southern neighbors (King and Blackburn 1978). As with most languages, the Takic dialects may have been more noticeable at the geographic extremes, while in actuality there was likely a continuum of slight sound and synonym shifts from one community to the next. One scholar has suggested that the northern edge of Western Tongva lands were home to the Tataviam Takic speakers, a related but separate language from Northern Takic (Mithun 1999:539).

GABRIELINO

The name Gabrielino denotes those people who were administered by the Spanish from San Gabriel Mission. The terms Gabrieleno, Tongva, and Kizh are also used for self-designation by contemporary

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descendant groups. Gabrielino lands encompassed the greater Los Angeles Basin and three Channel Islands: San Clemente, San Nicolas, and Santa Catalina. Their mainland territory was bounded on the north by the Chumash at Topanga Creek, the Serrano at the San Gabriel Mountains in the east, and the Juaneño on the south at Aliso Creek (Bean and Smith 1978:538; Kroeber 1976:636). The Gabrielino established large, permanent villages in the fertile lowlands along rivers and streams and in sheltered areas along the coast, stretching from the foothills of the San Gabriel Mountains to the Pacific Ocean (McCawley 1996:113–114). The Gabrielino participated in an extensive exchange network, trading between islands and mainland and between coast and interior. This burgeoning trade system was facilitated by the use of craft specialists and a standard medium of exchange (usually olivella bead currency, although barter was common as well), as well as the regular destruction of valuables in ceremonies, maintaining a high demand for these goods (Bean and Smith 1978:547; Kroeber 1925:630; McCawley 1996:112–115).

Historic Overview

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

LOCAL HISTORY

War in 1846 between Mexico and the United States precipitated the Battle of Chino, a clash between resident Californios and Americans in the San Bernardino area. The Mexican-American War ended with the Treaty of Guadalupe Hidalgo in 1848, ushering California into its American Period.

California officially became a state with the Compromise of 1850, which also designated Utah and New Mexico (with present-day Arizona) as U.S. Territories (Waugh 2003). Horticulture and livestock, based primarily on cattle as the currency and staple of the rancho system, continued to dominate the southern California economy through 1850s. The Gold Rush began in 1848, and with the influx of people seeking gold, cattle were no longer desired mainly for their hides but also as a source of meat and other goods. During the 1850s cattle boom, rancho vaqueros drove large herds from southern to northern California to feed that region's burgeoning mining and commercial boom. Cattle were at first driven along major trails or roads such as the Gila Trail or Southern Overland Trail, then were transported by trains when available. The cattle boom ended for southern California as neighbor states and territories drove herds to northern California at reduced prices. Operation of the huge ranchos became increasingly difficult, and droughts severely reduced their productivity (Cleland 2005:102–103).

In 1781, a group of 11 Mexican families traveled from Mission San Gabriel Arcángel to establish a new pueblo called El Pueblo de la Reyna de Los Angeles (The Pueblo of the Queen of the Angels). This settlement consisted of a small group of adobe-brick houses and streets and would eventually be known as the Ciudad de Los Angeles (City of Angels), which incorporated on April 4, 1850, only two years after the Mexican-American War and five months prior to California achieving statehood. Settlement of the Los Angeles region continued in the early American Period. The County of Los Angeles was established on February 18, 1850, one of 27 counties established in the months prior to California acquiring official statehood in the United States. Many of the ranchos in the area now known as Los Angeles County remained intact after the United States took possession of California; however, a severe drought in the 1860s resulted in many of the ranchos being sold or otherwise acquired by Americans. Most of these ranchos were subdivided into agricultural parcels or towns (Dumke 1944). Nonetheless,

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ranching retained its importance, and by the late 1860s, Los Angeles was one of the top dairy production centers in the country (Rolle 2003). By 1876, Los Angeles County reportedly had a population of 30,000 persons (Dumke 1944).

Los Angeles maintained its role as a regional business center, and the development of citriculture in the late 1800s and early 1900s further strengthened this status (Caughey and Caughey 1977). These factors, combined with the expansion of port facilities and railroads throughout the region, contributed to the impact of the real estate boom of the 1880s on Los Angeles (Caughey and Caughey 1977; Dumke 1944).

By the late 1800s, government leaders recognized the need for water to sustain the growing population in the Los Angeles area. Irish immigrant William Mulholland personified the city's efforts for a stable water supply (Dumke 1944; Nadeau 1997). By 1913, the City of Los Angeles purchased large tracts of land in the Owens Valley and Mulholland planned and directed the construction of the 240-mile aqueduct that brought the valley's water to the city (Nadeau 1997). A portion of the aqueduct runs north-south approximately 1 mile west of the project area.

Los Angeles continued to grow in the twentieth century, in part due to the discovery of oil in the area and its strategic location as a wartime port. The county's mild climate and successful economy continued to draw new residents in the late 1900s, with much of the county transformed from ranches and farms into residential subdivisions surrounding commercial and industrial centers. Hollywood's development into the entertainment capital of the world and southern California's booming aerospace industry were key factors in the county's growth in the twentieth century.

The City of Santa Clarita was named for the Santa Clara River, named for St. Clare by the Spanish during the 1769 Portola expedition. The first gold discovery in the state of California occurred in Santa Clarita on March 9, 1842 by Jose Francisco de Garcia Lopez (City of Santa Clarita 2020). On March 12, 1928, the St. Francis Dam gave way, sending 38,000 acre-feet of water rushing through the San Francisquito Canyon and the Santa Clarita Valley. Considered the greatest civil- engineering disaster in modern U.S. history, it was the nation's second deadliest dam failure resulting in the deaths of over 400 people and millions of dollars in property damage (Jackson and Hundley 2004). The City of Santa Clarita was incorporated on December 15, 1987, and was the largest city in the history of California to incorporate (City of Santa Clarita 2020).

METHODS AND RESULTS

Records Search

On August 27, 2020, SWCA requested a records search from the South Central Coastal Information Center (SCCIC) at California State University, Fullerton. The SCCIC is the California Historical Resources Information System (CHRIS) information center for Los Angeles County. The records search results were received from SCCIC on September 3, 2020 and included records for all previously conducted cultural resources surveys and all previously identified cultural resources within the Project area and a 1.6-km (0.5-mile) buffer zone. Information regarding previously identified cultural resources includes site type, eligibility for listing in the CHR and NRHP, and location. In addition to the records search, SWCA researched maps and other readily available information to identify potential cultural resources and the sensitivity for cultural resources within the Project area.

Records Search Results

Results of the records search indicate that 61 previous cultural resource investigations have been conducted within a 0.5-mile radius of the Project area. Of these studies, six investigations included a portion of the current Project area (Figure 4). Details pertaining to these investigations are listed below in Table 1.

*Cultural Resources Survey for the Santa Clarita Valley Water Agency Pump Station Project Letter Report***Table 1. Previous Cultural Resources Studies within 0.5 mile of the Project area**

Report No.	Author/Company	Year	Study Title	Relationship to Project area
LA-00054	Leonard, Nelson N. III/ University of California, Los Angeles Archaeological Survey	1974	Archaeological Resources of the Proposed Castaic Conduit System	Outside (within 0.5 mile)
LA-00463	McIntyre, Michael J./ Northridge Archaeological Research Center, CSUN	1979	Cultural Resource Reconnaissance of a Proposed Zone Change 6426 Near Saugus, Upper Santa Clara River Valley, Los Angeles County, California	Outside (within 0.5 mile)
LA-00508	Foster, John M./ Northridge Archaeological Research Center, CSUN	1979	Cultural Resource Reconnaissance of a Proposed Zone Change 6427 Near Saugus, Upper Santa Clara River Valley, Los Angeles County, Calif.	Outside (within 0.5 mile)
LA-00642	Anonymous/ Sikand Engineering Associates	1979	Preliminary Draft Environmental Impact Report for Auto Expansion Center, Valencia, California. Tentative Parcel Map 11614	Outside (within 0.5 mile)
LA-01171	Tartaglia, Louis J./ Tartaglia Archaeological Consulting	1982	Cultural Resource Survey Tentative Tract No. 34989, Located Ne of the Intersection of Valencia Boulevard and the Golden State Freeway	Outside (within 0.5 mile)
LA-01180	Hawthorne, Janice G./ NARC	1981	Cultural Resource Survey for Zc-80-065 Valencia, Los Angeles, California	Outside (within 0.5 mile)
LA-01235	Colby, Susan M./ University of California, Los Angeles Archaeological Survey	1983	An Archaeological Resource Survey and Impact Assessment of a 5+ Acre Parcel in Valencia, Los Angeles County, California	Outside (within 0.5 mile)
LA-01266	Tartaglia, Louis J./	1983	Cultural Resource Survey of Tentative Tract No. 34989	Outside (within 0.5 mile)
LA-01317	Tartaglia, Louis J./	1983	Preliminary Archaeological Reconnaissance San Francisquito Canyon	Outside (within 0.5 mile)
LA-01342	Tartaglia, Louis J./	1984	Cultural Resources Report San Francisquito Canyon	Outside (within 0.5 mile)
LA-01419	Romani, John F./ Caltrans	1984	Negative Archaeological Survey Report: Additional Ramps to I-5 Between Magic Mountain Parkway and Henry Mayo Drive Interchanges, Los Angeles County, Ca	Outside (within 0.5 mile)
LA-01447	Tartaglia, Louis J./	1985	Cultural Resource Survey Report San Francisquito Canyon	Outside (within 0.5 mile)

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Report No.	Author/Company	Year	Study Title	Relationship to Project area
LA-02031	McIntyre, Michael J./ Northridge Archaeological Research Center, CSUN	1977	Assessment of the Impact on Cultural Resources by the Proposed Development of the Equestrian Estates (W.O. 1020- 83g), Valencia	Outside (within 0.5 mile)
LA-02106	Tartaglia, Louis J./ Tartaglia Archaeological Consulting	1989	Cultural Resources Archaeological Survey Tentative Tract No. 44831	Outside (within 0.5 mile)
LA-02109	Tartaglia, Louis J./ Tartaglia Archaeological Consulting	1989	Addendum Tentative Parcel Map No. 44356 Cultural Resources Archaeological Survey Proposed Zone Change 6426 Near Saugus, Upper Santa Clara River Valley, Los Angeles County, California	Outside (within 0.5 mile)
LA-02450	Tartaglia, Louis J./ Tartaglia, Louis James	1991	Cultural Resources Archaeological Survey - I-5 Freeway and Valencia Blvd., Valencia, California	Outside (within 0.5 mile)
LA-02477	Whitney-Desautels, Nancy A./ Scientific Resource Surveys, Inc.	1989	Archaeological Assessment Reclaimed Water Distribution System Los Angeles County, California Preliminary Report	Within
LA-02503	Romani, John F., Roberta S. Greenwood, Portia Lee, and Gwen Romani/ Greenwood and Associates; Parsons, Brinckerhoff, Quade & Douglas, Inc.	1992	Historic Property Survey Report & Archaeological Survey Report & Historic Architectural Survey Report for the Route 126 Location Study (easterly Extension) From I-5 to SR-14, Santa Clarita Valley, Los Angeles County, California 07- la-126-5.8/12.7. Final	Outside (within 0.5 mile)
LA-02637	Singer, Clay A., John E. Atwood, and Shelley M. Gomes/ C.A. Singer & Associates, Inc.	1992	Cultural Resources Survey and Impact Assessment for the Valencia Water Reclamation Plant Stage Iv Solids Processing Facilities Near the City of Santa Clarita, Los Angeles County, California	Outside (within 0.5 mile)
LA-02681	Wessel, Richard L./ NARC	1979	Environmental Impact Statement Magic Mountain Resort Zone Case Number 6089 (5)	Outside (within 0.5 mile)
LA-02950	Anonymous/ Peak & Associates, Inc.	1992	Consolidated Report: Cultural Resource Studies for the Proposed Pacific Pipeline Project	Outside (within 0.5 mile)
LA-02951	Gibson, Robert O./ Consulting Archaeologist	1993	Results of Archaeological Records Review for the Pacific Pipeline Project Emidio Lateral Pipeline Kern and Los Angeles Counties, Ca	Outside (within 0.5 mile)

Cultural Resources Survey for the Santa Clarita Valley Water Agency Pump Station Project Letter Report

Report No.	Author/Company	Year	Study Title	Relationship to Project area
LA-02987	Woods, Clyde M., Andrew York, Rebecca Apple, Tirzo Gonzalez, Stephen Van Wormer, Tom Demere, and James H. Cleland/ Dames & Moore	1987	Bicep Transmission Project Magunden to Vincent/pardee Alternative Corridor Study Archaeology, Ethnology, History and Paleontology Technical Reports (draft)	Outside (within 0.5 mile)
LA-02996	Valentine-Maki, Mary/ Fugro McClelland (West), Inc.	1993	Cultural Resources Survey for the Proposed Santa Clara River Horse and Bike Trail Santa Clarita, Los Angeles County, California	Within
LA-03135	Whitley, David S. and Joseph M. Simon/ W & S Consultants	1994	Phase 1 Archaeological Survey and Cultural Resources Assessment for the Southriver Project area, Santa Clarita, Los Angeles County, California	Outside (within 0.5 mile)
LA-03154	Whitley, David S. and Joseph M. Simon/ W & S Consultants	1994	Phase 1 Archaeological Survey and Cultural Resources Assessment for the Ranch Road-south Project area, Santa Clarita, Los Angeles County, California	Outside (within 0.5 mile)
LA-03289	Davis, Gene/ Dames & Moore	1990	Mobil M-70 Pipeline Replacement Project Cultural Resource Survey Report for Mobil Corporation	Outside (within 0.5 mile)
LA-03297	Maxon, Patrick O./ RMW Paleo Associates, Inc.	1998	Archaeological Monitoring for the 184.8 Acre Woodlands, Valencia Development, Tentative Tract Number 44374, Los Angeles County, Santa Clarita, California Tentative Tract Number 44374, Los Angeles County, Santa Clarita, California	Outside (within 0.5 mile)
LA-03397	Whitley, David S. and Joseph M. Simon/ W & S Consultants	1994	Intensive Phase 1 Archaeological Survey of the West Ranch Project area, Los Angeles County, California	Outside (within 0.5 mile)
LA-03499	Eisentraut, Phyllisa/ Dames & Moore	1994	Metropolitan Water District West Valley Project Cultural Resources Technical Report	Outside (within 0.5 mile)
LA-03690	Wlodarski, Robert J./ Historical, Environmental, Archaeological, Research, Team	1997	Cultural Resources Evaluation City of Santa Clarita Circulation Element EIR	Outside (within 0.5 mile)
LA-03796	/ BioSystems Analysis, Inc.	1989	Technical Report of Cultural Resources Studies for the Proposed WTG-west, Inc. Los Angeles to San Francisco and Sacramento, California Fiber Optic Cable Project	Outside (within 0.5 mile)

Cultural Resources Survey for the Santa Clarita Valley Water Agency Pump Station Project Letter Report

Report No.	Author/Company	Year	Study Title	Relationship to Project area
LA-03895	Pence, Robert L./	1977	Archaeological Assessment of the Proposed Oxnard LNG Pipeline Route From La Vista, Ventura County, to Quiquley, Los Angeles County	Outside (within 0.5 mile)
LA-03904	Anonymous/ W & S Consultants	1995	Phase I Archaeological Survey and Cultural Resources Basement for the Parcel Map 19091 North Rover Study Area, Los Angeles County, California	Outside (within 0.5 mile)
LA-03915	Unknown/ W & S Consultants	1996	Phase I Archaeological Survey and Cultural Resources Assessment of the North Valencia Annexation Project Study Area, Los Angeles County, California	Outside (within 0.5 mile)
LA-03933	McLean, Deborah K./ LSA Associates, Inc.	1998	Archaeological Assessment for Pacific Bell Mobile Services Telecommunications Facility La310-03, 24901	Outside (within 0.5 mile)
LA-04008	Unknown/ Science Applications International Corporation	1996	Cultural Resources Investigation Pacific Pipeline Emidio Route	Outside (within 0.5 mile)
LA-05141	Iverson, Gary/ Caltrans District 7	1998	Negative Archaeological Survey Report:17600k	Outside (within 0.5 mile)
LA-05526	White, Robert S./ Archaeological Associates, Ltd.	1999	Archaeological and Paleontological Assessments of the Magic Mountain Parkway Project (from Tourney Road to 0.9 Kilometers West of McBean Parkway), Santa Clarita, Los Angeles County	Outside (within 0.5 mile)
LA-05845	Anonymous/ W & S Consultants	1998	Phase I Archaeological Survey of the Westridge Off-site Drainage Facility Study Area, Los Angeles County, California	Outside (within 0.5 mile)
LA-05849	Anonymous/ W & S Consultants	1998	Phase I Archaeological Survey of the Westridge Project Study Area, Los Angeles County, California	Outside (within 0.5 mile)
LA-05851	Chandler, Evelyn N., Cary D. Cotterman, Brenda D. Smith, and Valerie M. Van Hemelryck/ Tetra Tech, Inc.	2000	Cultural Resources Inventory for Improvements to Interstate 5 and Magic Mountain Parkway Interchange Los Angeles County, California	Within
LA-05852	Duke, Curt/ LSA Associates, Inc.	2002	Cultural Resource Assessment AT&T Wireless Services Facility No. D366d Los Angeles County, California	Outside (within 0.5 mile)
LA-06861	Maki, Mary K./ Conejo Archaeological Consultants	2002	Record Search Results and Recommendations for the M-70 Pipeline Horizontal Directional Drill Project, Santa Clarita, Los Angeles County	Outside (within 0.5 mile)

Cultural Resources Survey for the Santa Clarita Valley Water Agency Pump Station Project Letter Report

Report No.	Author/Company	Year	Study Title	Relationship to Project area
LA-07889	Schmidt, James J./ Compass Rose Archaeological, Inc.	2006	Magic Mountain Parkway & Interstate 5 Overhead Facilities Relocation Project, Los Angeles County	Outside (within 0.5 mile)
LA-07986	Harper, Caprice D./ BonTerra Consulting	2006	Cultural Resources Assessment for the Castaic Lake Water Agency Recycled Water Master Plan and the Northwest Spur Pipeline, Santa Clarita, Los Angeles County, California	Outside (within 0.5 mile)
LA-08255	Arrington, Cindy and Nancy Sikes/ SWCA Environmental Consultants, Inc.	2006	Cultural Resources Final Report of Monitoring and Findings for the Qwest Network Construction Project State of California: Volumes I and II	Outside (within 0.5 mile)
LA-08958	Tsunoda, Koji and Moreno, A./ Jones & Stokes	2007	Archaeological Survey Report for Southern California Edison Company Saugus-north Oaks Fo Cable Project Los Angeles County, California (wo#8456- 0639, Jo#6155)	Within
LA-09020	Whitley, David S. and Joseph M. Simon/ W & S Consultants	2004	Intensive Phase I Archaeological Survey of the Old Road Study Area, Northern Los Angeles County, California	Outside (within 0.5 mile)
LA-09022	Whitley, David S., Joseph M. Simon, and Robert Snibley/ W & S Consultants	2002	Intensive Phase I Archaeological Survey of the Magic Mountain Entertainment Center Project area, Northern Los Angeles County, California	Outside (within 0.5 mile)
LA-09023	Simon, Joseph M./ W & S Consultants	2004	Intensive Phase I Archaeological Survey for the Chevron Relocation Project, Los Angeles County, California	Outside (within 0.5 mile)
LA-09027	Harper, Caprice D./ BonTerra Consulting	2005	Cultural Resource Assessment for the Castaic Lake Water Agency Recycled Water Master Plan and the Northwest Spur Pipeline, Santa Clarita, Los Angeles County, California	Outside (within 0.5 mile)
LA-09860	Gwen Romani/ Compass Rose Archaeological, Inc.	2009	Saugus-Haskell 66 kV Deteriorated Pole Replacement Project, Los Angeles County, CA	Outside (within 0.5 mile)
LA-10560	Hunt, Kevin and Richard D. Schultz/ SWCA Environmental Consultants	2005	Final Confidential: Cultural Resources Study for the Upper Santa Clara River Watershed Arundo and Tamarisk Removal Program Long-term Implementation Plan, program Environmental Impact Report/Environmental Assessment, Los Angeles County, California	Within

Cultural Resources Survey for the Santa Clarita Valley Water Agency Pump Station Project Letter Report

Report No.	Author/Company	Year	Study Title	Relationship to Project area
LA-10578	Fortier, Jana/ ICF Jones & Stokes	2009	TEA21 Rural Roadside Inventory: Native American Consultation and Ethnographic Study Caltrans District 7, County of Los Angeles	Outside (within 0.5 mile)
LA-11228	Unknown/ Entrix, Incorporated	2004	Environmental Analysis - Onshore Component of BHP Billiton LNG International Inc. Cabrillo Port Project	Within
LA-11246	McKenna, Jeanette A./ McKenna et al.	2009	A Class III/Section 106 and Phase I CEQA Cultural Resources Investigation of the Proposed McBean Regional Transit Center Park and Ride Project area in the City of Santa Clarita, Los Angeles County, California	Outside (within 0.5 mile)
LA-12526	Ehringer, Candace, Ramirez, Katherine, and Vader, Michael/ ESA	2013	Santa Clarita Valley Sanitation District Chloride TMDL Facilities Plan Project, Phase I Cultural Resources Assessment	Outside (within 0.5 mile)
LA-12662	Simon, Joseph/ W & S Consultants	2014	Intensive Phase I Archaeological Survey of VTTM 53295, Los Angeles County, California	Outside (within 0.5 mile)
LA-12690	Simon, Joseph/ W & S Consultants	2014	Phase II Archaeological Test Excavation and Determination of Significance at the Entrada Project Site (VTTM 53295) Los Angeles County, California	Outside (within 0.5 mile)
VN-03153	Ehringer, Candace, Ramirez, Katherine, and Vader, Michael/ ESA	2013	Santa Clarita Valley Sanitation District Chloride TMDL Facilities Plan Project, Phase I Cultural Resources Assessment	Outside (within 0.5 mile)

The records search also identified 12 previously recorded cultural resources located within 0.5 mile of the Project area. Of these resources, none were mapped within portions of the Project area (Figure 5). The results are summarized below in Table 2.

Table 2. Previously Recorded Cultural Resources within 0.5 mile of the Project area

Primary No.	Trinomial	Temporal Affiliation	Resource Type	Resource Description	Recorded by and Year Recorded	Relationship to Project area
P-19-000823	CA-LAN-000823	Prehistoric, Protohistoric	Site	Village site with burials	1975 (MD Rosen); 1989 (MQ Sutton, Cal State Bakersfield)	Outside (within 0.5 mile)
P-19-002190	CA-LAN-002190H	Historic	Site	Southern Pacific railroad bridge	1993 (M.Valentine-Maki, Fugro-McClelland)	Outside (within 0.5 mile)

Cultural Resources Survey for the Santa Clarita Valley Water Agency Pump Station Project Letter Report

Primary No.	Trinomial	Temporal Affiliation	Resource Type	Resource Description	Recorded by and Year Recorded	Relationship to Project area
P-19-004830		Historic	Site	Historic structure remains	2016 (Michael Williams, ESA)	Outside (within 0.5 mile)
P-19-004890	CA-LAN-004890	Prehistoric	Site	Lithic scatter	2018 (Ray Corbett, JMA)	Outside (within 0.5 mile)
P-19-004898	CA-LAN-004898	Prehistoric	Site	Lithic scatter	2019 (Ray Corbett, JMA)	Outside (within 0.5 mile)
P-19-101434		Prehistoric	Object, Other	Isolate	2018 (Alexander New, JMA)	Outside (within 0.5 mile)
P-19-101440		Prehistoric	Object, Other	Isolate	2018 (Brandon Lim, JMA)	Outside (within 0.5 mile)
P-19-186541		Historic	Object, Site	Oak of the Golden Dream and plaque	1959 (Philbrook); 1980 (J. Arbuckle); 1980 (J. Arbuckle); 1980 (J. Arbuckle); 2012 (C. Ehringer, ESA); 2018 (M. Mello, AECOM)	Outside (within 0.5 mile)
P-19-186861		Historic	Structure	Transmission line	2002 (J. Schmidt, Compass Rose); 2016 (Audry Williams, SCE)	Outside (within 0.5 mile)
P-19-190315		Historic	Structure	Bridge	2012 (Candace Ehringer, ESA); 2018 (M. Mello, AECOM)	Outside (within 0.5 mile)
P-19-192633		Historic	Building, Structure	Valencia Water Reclamation Plant	2018 (M. Mello, AECOM)	Outside (within 0.5 mile)
P-19-192643		Historic	Structure	Bridge	2018 (M. Mello, AECOM)	Outside (within 0.5 mile)

Native American Outreach

On September 22, 2021, SWCA requested a search of the Sacred Lands File from the Native American Heritage Commission (NAHC). SWCA received a response from the NAHC dated October 18, 2021, stating that the results of the Sacred Lands File search indicate that Native American cultural resources are known in the immediate vicinity of the APE. The NAHC indicated that the Fernandeno Tatavian Band of Mission Indians may have knowledge of cultural resources in the APE. Under Assembly Bill 52, the CEQA the lead agency is responsible for any Native American outreach and consultation that could be required for a project.

Field Methods

SWCA archaeologist Ms. Matheu conducted an intensive pedestrian survey of the Project Area on August 27, 2021. The intensive-level survey consisted of systematic surface inspection of all areas with transects walked at 15-m intervals or less to ensure that any surface-exposed artifacts and sites could be identified. SWCA examined the ground surface for the presence of prehistoric artifacts (e.g., flaked stone tools, tool-making debris, stone milling tools); historic artifacts (e.g., metal, glass, ceramics); sediment discoloration that might indicate the presence of a cultural midden, roads and trails; and depressions and other features that might indicate the former presence of structures or buildings (e.g., post holes, foundations).

Cultural Resources Survey for the Santa Clarita Valley Water Agency Pump Station Project Letter Report

The Project area was photographed using a digital camera and resource data were recorded with a handheld tablet with a submeter-accurate global positioning system (GPS) antenna using the Collector for ArcGIS application. All field notes, photographs, and records related to the current study are on file at the SWCA Pasadena, California, office.

Field Results

SWCA archaeologists conducted an intensive pedestrian survey of the 3.5 acre pump station footprint Project area (Figure 6). Ground visibility within the Project area was excellent at approximately 76 to 100 percent visibility (Figure 7). Most of the Project area was comprised of an asphalt parking lot, hindering inspection of sediments underneath; however, the northern edge of the Project area was covered in gravel and the western portion contained exposed earth heavily overgrown with desert shrubs and grasses (Figure 8 and Figure 9). Sediment in these areas consisted of a compact, brown sandy silt, with granitic inclusions and sub-rounded to sub-angular gravels, which are likely consistent with what exists underneath the asphalt parking lot. No cultural resources were observed during the survey.

CONCLUSIONS AND RECOMMENDATIONS

SWCA conducted a CHRIS records search and of an intensive pedestrian survey within the Project area. No cultural resources were identified within the Project site, the surface of which is mostly paved or otherwise obscured. The Project site has clearly been subject to past disturbance, including extensive grading/leveling and paving, such that any surface manifestations of archaeological resources that might once have been present have undoubtedly been destroyed. SWCA concludes that the likelihood of encountering cultural resources during Project construction is low, and no further work is recommended.

That said, the unanticipated discovery of cultural resources, including buried artifacts, remains a possibility. In the event that cultural resources are exposed during construction, work in the immediate vicinity of the find must stop until a qualified archaeologist can evaluate the significance of the find. Construction activities may continue in other areas. If the discovery is evaluated as significant under CEQA, additional work, such as testing or data recovery, may be warranted.

The discovery of human remains is always a possibility during ground disturbances. State of California Health and Safety Code Section 7050.5 states that no further disturbance shall occur until the county coroner has made a determination of origin and disposition pursuant to PRC Section 5097.98. The county coroner must be notified of the find immediately. If the human remains are determined to be prehistoric, the coroner will notify the NAHC, which will determine and notify a Most Likely Descendant (MLD). The MLD shall complete the inspection of the site within 24 hours of notification and may recommend scientific removal and nondestructive analysis of human remains and items associated with Native American burials.

Sincerely,



Matthew Behrend, M.A., RPA
Cultural Resources Project Manager



Michelle Courtney, M.A
Cultural Resources Assistant Project Manager

Cultural Resources Survey for the Santa Clarita Valley Water Agency Pump Station Project Letter Report

REFERENCES CITED

Bean, Lowell John and Charles R. Smith

- 1978 Gabrielino. In the *Handbook of North American Indians*, Volume 8, California. Edited by R.F. Heizer, pp. 538-549. Smithsonian Institution, Washington D.C.

Caughey, John, and LaRee Caughey

- 1977 *Los Angeles: Biography of a City*. Berkeley: University of California Press.

City of Santa Clarita

- 2020 City of Santa Clarita Community Profile. Available at: <https://www.santa-clarita.com/home/showdocument?id=2132>. Accessed August 31, 2020.

Cleland, Robert Glass

- 2005 *The Cattle on a Thousand Hills: Southern California, 1850-80*. 2d ed. Sixth printing. San Marino, California: The Huntington Library.

Dumke, Glenn S.

- 1944 *The Boom of the Eighties in Southern California*. San Marino, California: Huntington Library Publications.

Godfrey, Anthony

- 2005 *The Ever-Changing View: A History of the National Forests in California*. R5-FR-004. US Department of Agriculture, Forest Service.

Governor's Office of Planning and Research

- 1998 CEQA, California Environmental Quality Act Statutes and Guidelines. Governor's Office of Planning and Research, Sacramento, California. <http://ceres.ca.gov/ceqa/rev/approval.html>.

Jackson, Donald C. and Norris Hundley, Jr.

- 2004 Privilege and Responsibility: William Mulholland and the St. Francis Disaster. *California History* 82(3): 8-47.

King, Chester, and Thomas C. Blackburn

- 1978 Tataviam. In *California*, edited by R. F. Heizer, pp. 535-537. *Handbook of North American Indians*, Vol. 8, William C. Sturtevant, general editor. Washington, D.C.: Smithsonian Institution.

Kroeber, Alfred J.

- 1976 *Handbook of the Indians of California*. Reprint originally published in 1925. Bureau of American Ethnology Bulletin 78. Dover Publications, Inc., New York, New York.

McCawley, William

- 1996 *The First Angelinos: The Gabrielino Indians of Los Angeles*. Malki Museum/Ballena Press Cooperative Publication, Banning or Novato, California.

Mithun, Marianne

- 1999 *The Languages of Native North America*. New York: Cambridge University Press.

Cultural Resources Survey for the Santa Clarita Valley Water Agency Pump Station Project Letter Report

Moratto, M. J.

1984 *California Archaeology*. Coyote Press, Salinas, California.

Mountains Recreation & Conservation Authority

2020 Plants & Wildlife. Available at: <https://mrca.ca.gov/plants-wildlife/>. Accessed August 31, 2020.

Nadeau, Remi

1997 *The Water Seekers*. Rev. 4th ed. Santa Barbara, California: Crest Publishers.

National Park Service (NPS)

1983 Archeology and Historic Preservation; Secretary of the Interior's Standards and Guidelines. *Federal Register* 48(190):44716–44742.

2011 Chapter 2: Resource Descriptions. In *San Gabriel Watershed and Mountains Special Resources Study and Environmental Assessment*, pp. 34-32. Available at: <http://parkplanning.nps.gov/document.cfm?documentID=43639>. Accessed August 31, 2020.

Waugh, John C.

2003 *On the Brink of Civil War: The Compromise of 1850 and How It Changed the Course of American History*. Wilmington, Delaware: Scholarly Resources, Inc.

ATTACHMENT A

Figures



Figure 1. Project vicinity map.

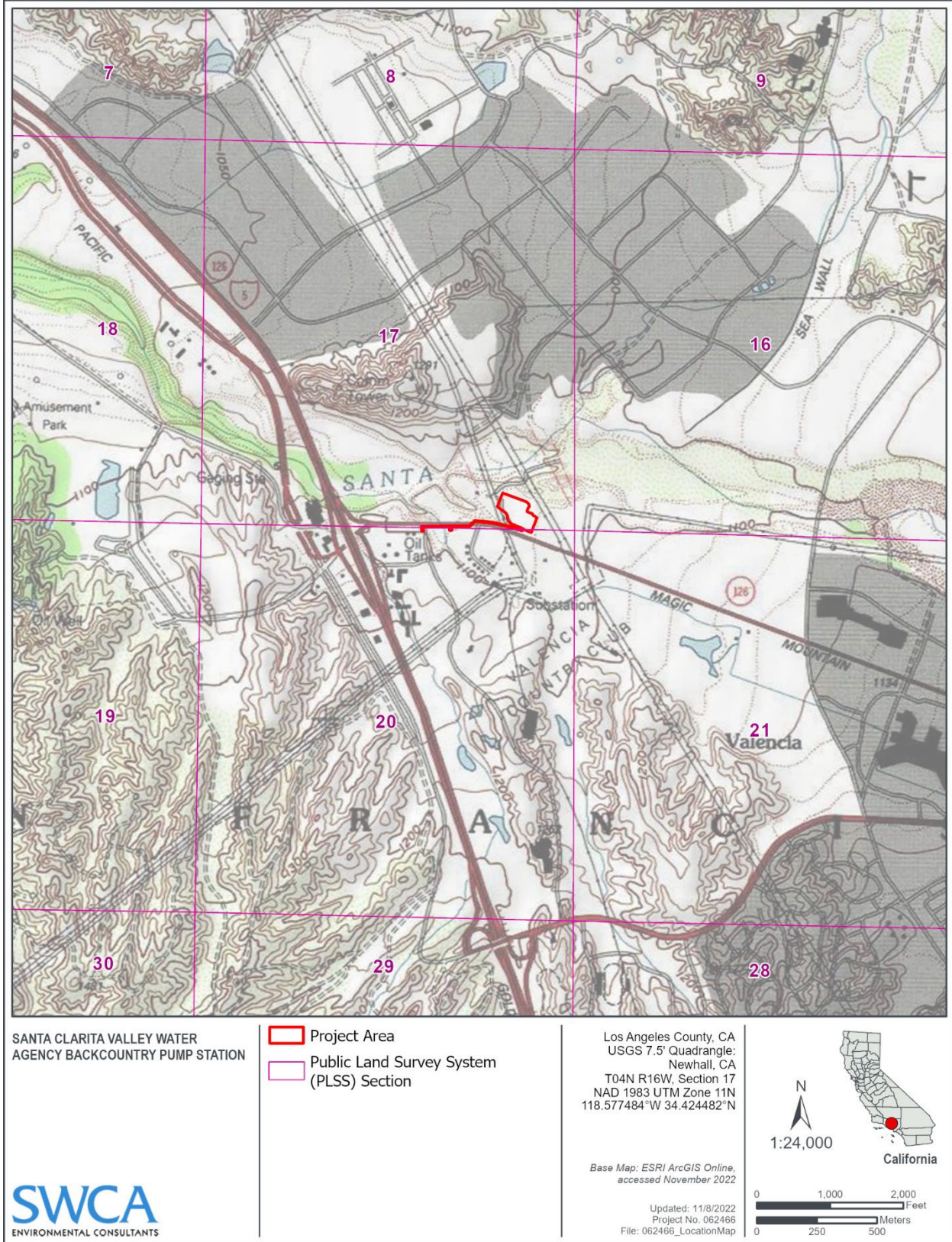


Figure 2. Project location map.



Figure 3. Project area map.

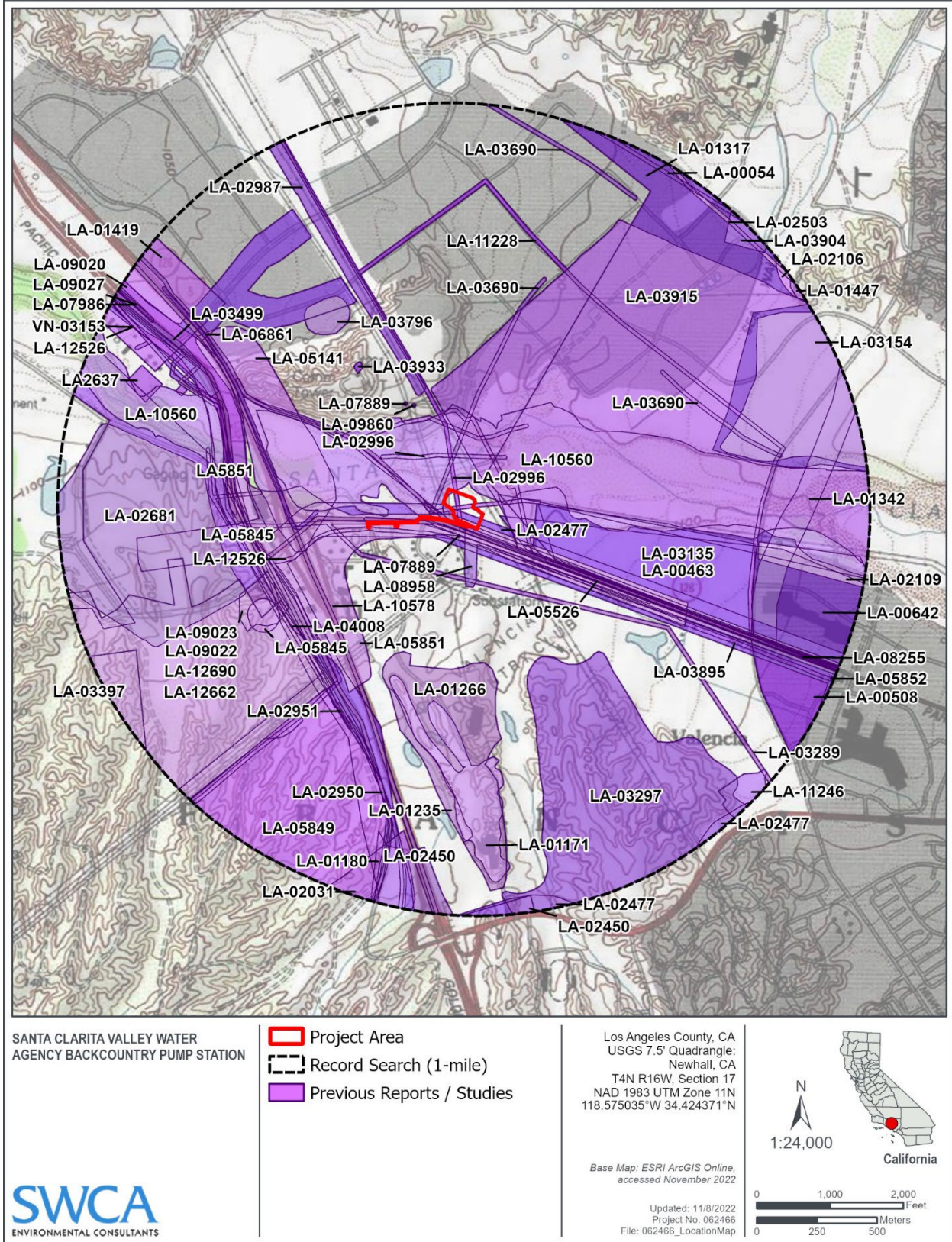


Figure 4. Record Search Results (Reports).

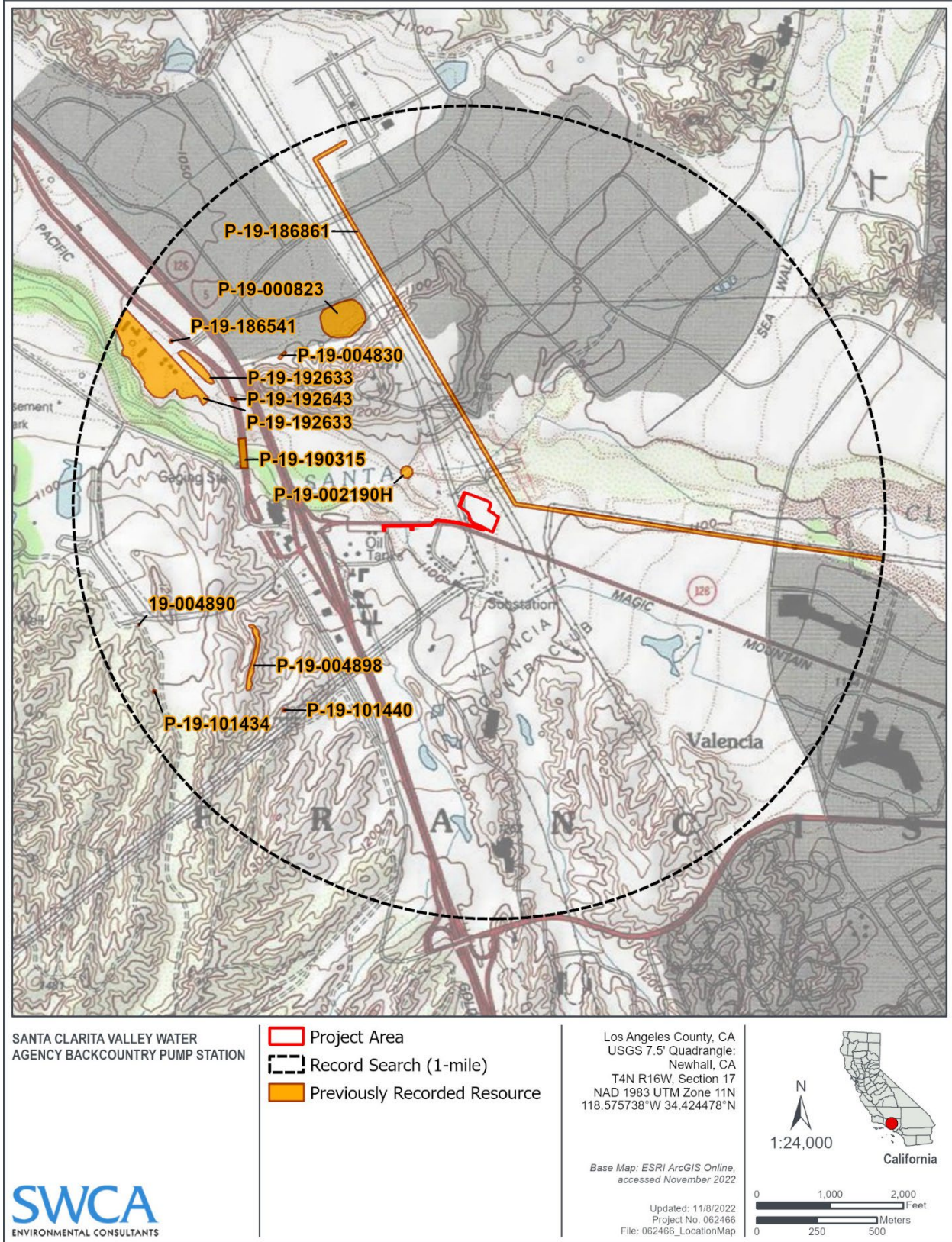


Figure 5. Records Search Results (Resources)

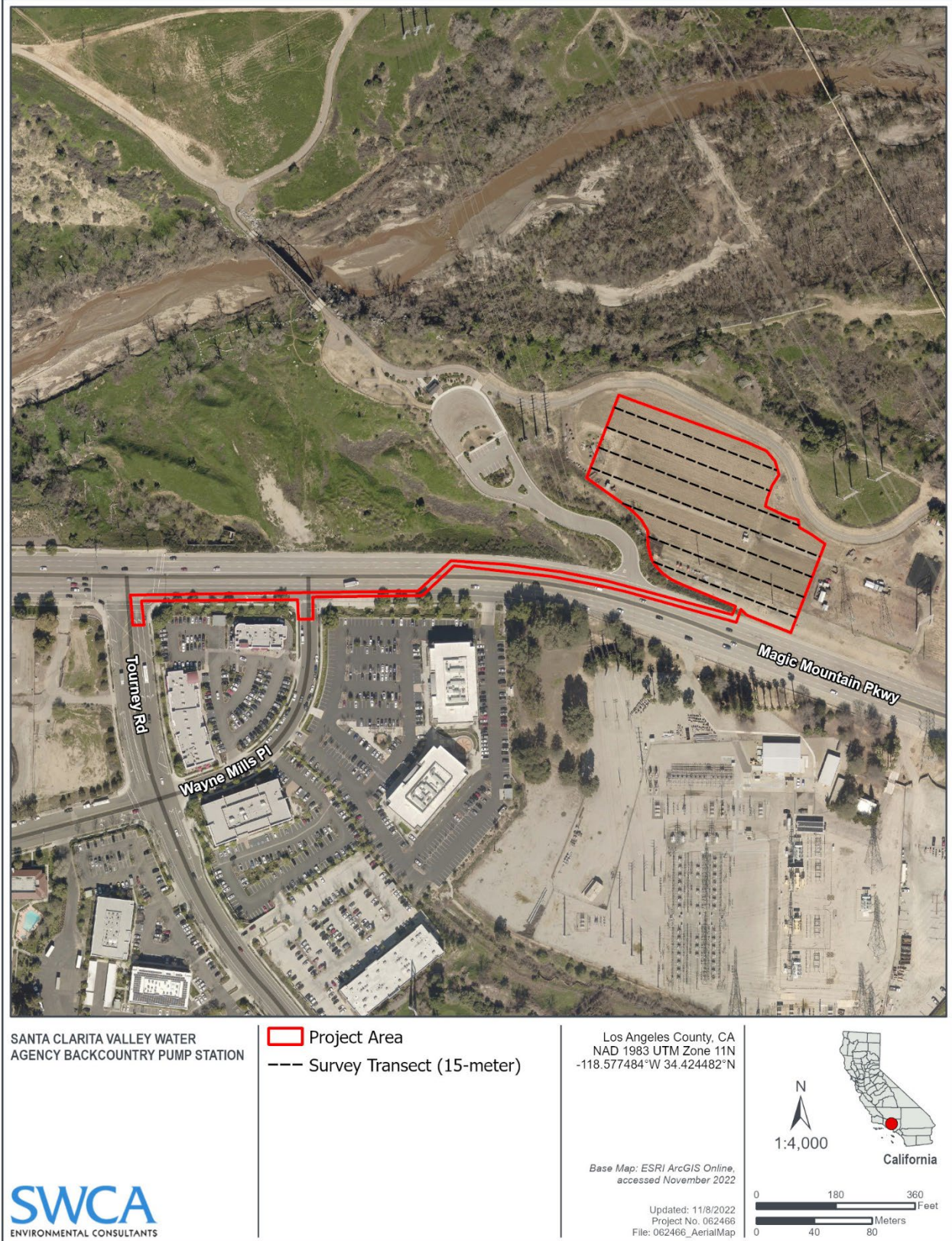


Figure 6. Field Results Map



Figure 7. Project overview, view facing north-northwest.



Figure 8. Project overview, view facing south



Figure 9. Project overview, view facing southwest.

**APPENDIX E: PALEONTOLOGICAL RESOURCES ASSESSMENT
FOR BACKCOUNTRY PUMP STATION**



Paleontological Resources
Assessment for the
Santa Clarita Valley Water Agency
Backcountry Pump Station Project,
City of Santa Clarita,
Los Angeles County, California

NOVEMBER 2022

PREPARED FOR
Woodard & Curran

PREPARED BY
SWCA Environmental Consultants

**PALEONTOLOGICAL RESOURCES ASSESSMENT FOR THE
SANTA CLARITA VALLEY WATER AGENCY BACKCOUNTRY
PUMP STATION PROJECT,
CITY OF SANTA CLARITA,
LOS ANGELES COUNTY, CALIFORNIA**

Prepared for

Woodard & Curran
24422 Avenida de la Carlota
Suite 180
Laguna Hills, California 92653
Attn: Jennifer Ziv

Prepared by

Mathew Carson, M.S., Lead Paleontologist
and
Russell Shapiro, Ph.D., Principal Investigator

SWCA Environmental Consultants
320 North Halstead Street, Suite 120
Pasadena, California 91107
(626) 240-0587
www.swca.com

SWCA Project No. 62466

November 2022

EXECUTIVE SUMMARY

Purpose and Scope: Woodard & Curran retained SWCA Environmental Consultants (SWCA) to conduct a paleontological resources assessment for the proposed Santa Clarita Valley Water Agency Backcountry Pump Station Project (project), located in the city of Santa Clarita, Los Angeles County, California. The following study was conducted to analyze any potential impacts the project may have on paleontological resources located in the project site to comply with the California Environmental Quality Act (CEQA), local regulations, and best practices in paleontological mitigation. This report documents the methods and results of a paleontological resources assessment, which included a review of geologic maps, scientific literature, and confidential fossil locality records from the Natural History Museum of Los Angeles County (NHMLA), which were used to evaluate the likelihood of paleontological resources within the project site.

Dates of Investigation: SWCA received the results of a museum records search from the NHMLA on August 15, 2020.

Summary of Findings: Geologic mapping by Yerkes and Campbell (1995) at a scale of 1:24,000 indicates that the project area is mapped at the surface as Holocene to late Pleistocene younger alluvium (Qal). Although not mapped at the surface within the project area, late Pleistocene terrace deposits (Qt) and Pleistocene Saugus Formation (Qs) likely underlie the younger alluvium at depth based on their proximity to the project site. The NHMLA records search indicated the museum has several localities in undifferentiated Pleistocene-aged sediments and in Pleistocene Saugus Formation within vicinity of the project site; however, there are no museum records of fossil localities within the project site. A review of the scientific literature provided context for these and other fossil discoveries. Analysis of these data allowed the assignment of paleontological sensitivity using the Society of Vertebrate Paleontology paleontological potential classes, such that younger alluvium has a Low to High paleontological sensitivity, increasing with depth (the transition from Low to High is unknown but may be as shallow as 10 feet below ground surface); the underlying terrace deposits and Saugus Formation both have a High paleontological sensitivity.

Conclusions and Recommendations: Ground-disturbing activities would impact sediments at 15 feet below ground surface during construction of the pump building and 6 feet below ground surface during construction of the 16-inch and 24-inch distribution pipelines. Earthwork activities greater than or equal to 10 feet below ground surface would impact sediments of High paleontological sensitivity. Because there is High potential for the subsurficial geologic units to preserve fossils, this report contains measures designed to reduce potential impacts to less than significant levels. These measures include the following: retaining a qualified paleontologist to prepare and implement a Paleontological Monitoring and Mitigation Program that includes full-time paleontological monitoring of all excavations that meet or exceed 10 feet in depth in previously undisturbed sediments, implementing a Worker Environmental Awareness Program, and the salvage and museum curation of any significant fossils encountered during project activities. Regulatory compliance and adherence to these measures will reduce impacts of the project to paleontological resources to a less-than-significant level as required by CEQA.

Disposition of Data: This report will be on file with Woodard & Curran and SWCA's Pasadena office.

Paleontological Resources Assessment for the Santa Clarita Valley Water Agency Backcountry Pump Station Project, City of Santa Clarita, Los Angeles County, California

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Appendix A. Natural History Museum of Los Angeles County Paleontological Records Search
(CONFIDENTIAL)

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1 INTRODUCTION

Woodard & Curran retained SWCA Environmental Consultants (SWCA) to conduct a paleontological resources assessment for the proposed Santa Clarita Valley Water Agency (SCV Water) Backcountry Pump Station Project (project), located in the city of Santa Clarita, Los Angeles County, California (Figure 1). The following study was conducted to analyze any potential impacts the project may have on paleontological resources located in the project site to comply with the California Environmental Quality Act (CEQA), local regulations, and best practices in paleontological mitigation (Murphey et al. 2019). This report documents the methods and results of a paleontological resources assessment, which included a review of geologic maps, scientific literature, and confidential fossil locality records from the Natural History Museum of Los Angeles County (NHMLA), which were used to evaluate the likelihood of paleontological resources within the project site.

SWCA Lead Paleontologist Mathew Carson, M.S., conducted the paleontological resources assessment presented herein and authored this report. SWCA Paleontological Principal Investigator Russell Shapiro, Ph.D., provided technical review of the report. Natural Resources Director Heather Huerta, M.S., served as project manager and provided additional quality assurance/quality control. Figures were generated by SWCA Geographic Information System (GIS) Specialists Katie Bonser, B.S., and Marty Kooistra, M.A. Copies of the report are on file with SWCA's Pasadena office.

2 PROJECT DESCRIPTION AND LOCATION

The proposed project consists of the Backcountry Pump Station and associated V-9 Turn-out and distribution pipelines in Magic Mountain Parkway. The Backcountry Pump Station Project would be located within the incorporated boundaries of the city of Santa Clarita, north of Magic Mountain Parkway, south of the Santa Clara River, approximately 0.5 mile east of Interstate 5 (Figure 2). The Backcountry Pump Station site is approximately 2 miles east/north-east of the site for the Backcountry Reservoir. The existing Magic Mountain Pipeline follows Magic Mountain Parkway and passes partially through the pump station site. The project area is in Township 4 North, Range 17 West, as depicted on the U.S. Geological Survey (USGS) Newhall, California, 7.5-minute topographic quadrangle (Figure 3).

The pump station site would include a pump building, flow control and pressure reducing station, emergency backup generator, fuel tank, and electrical transformer pad. The pump building would house the required mechanical and electrical equipment and would space for up to four 450 horsepower pumps. The overall dimension of the pump station site is approximately 268 feet by 140 feet. The pump building would be constructed with concrete masonry unit (CMU) block walls, with dimensions of approximately 100 feet by 66 feet, for a total footprint of approximately 6,600 square feet.

The access road and area surrounding the pump station would be paved with asphalt or concrete, and designed consistent with fire code, including, a minimum of 25 feet of clearance provided around the pump station building.

A diesel backup generator would be installed in a generator room within the pump building. Fuel for the backup generator would be stored in two tanks (one 7,000 gallons and one 300 gallons). The fuel tanks would be installed within containment walls and would be located outside the pump building.

The existing entrance gate from Magic Mountain Parkway, which is 26 feet wide, would remain in place and could accommodate various vehicles during construction and operation of the pump station. Perimeter fencing would be installed around the pump station and lighting at the pump station would be minimal. Landscaping, which would surround the property to provide privacy and to soften views of the pump station.

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Figure 1. Project vicinity within Los Angeles County.

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Figure 2. Project location and aerial view.

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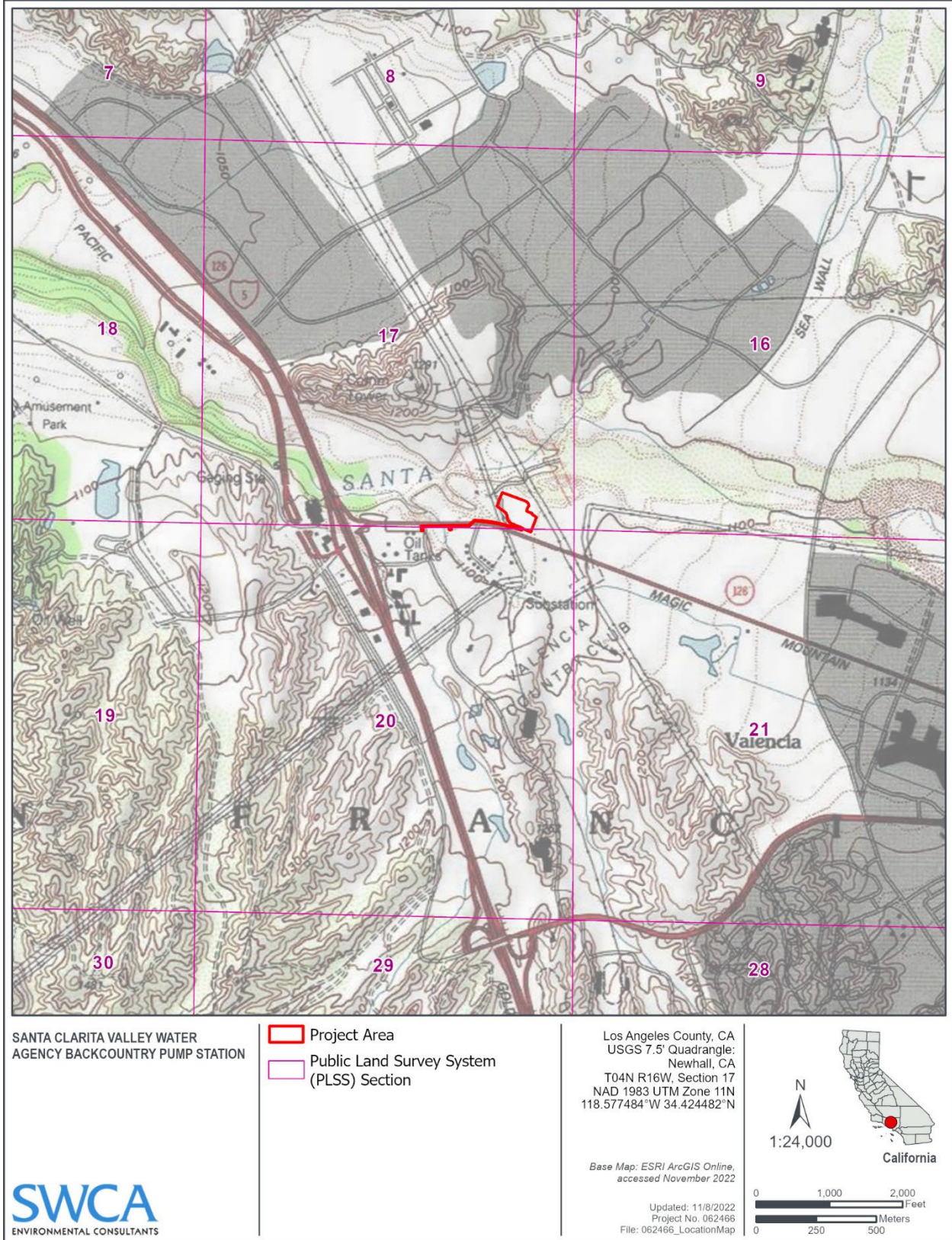


Figure 3. Project site plotted on the USGS Newhall, California, 7.5-minute topographic quadrangle.

The proposed project also includes a turnout (V-9 Turnout Facility) that would be located at the Backcountry Pump Station site at the 42-inch discharging pipe. The V-9 turnout would include pressure and flow control valves, as well as a flow meter. From the V-9 Turnout facility two distribution pipelines would be constructed in Magic Mountain Parkway to tie into existing distribution mains. Specifically, a 16-inch distribution pipeline would extend approximately 1,920 feet in Magic Mountain Parkway to tie into the existing 16-inch main in Tourney Road to serve Zone 1, and a 24-inch distribution pipeline would extend approximately 1,4870 feet in Magic Mountain Parkway to tie into the existing 16-inch main in Wayne Mills Place to serve Zone IIA-N.

2.1 Construction Activities

Construction of the pump station would involve site preparation, grading, structural improvements, paving, and electrical work. Minimal grading would be required as the site is relatively flat. Excavation for the pump station would be to a maximum depth of 15 feet below ground surface. Construction staging would occur on the proposed pump station site, and would require storage of equipment, construction materials, and stockpiled soil. Construction activities would be restricted to the disturbed site; areas of adjacent vegetation would be avoided. There is also potential for landscaping improvements and work to improve driveway access to Magic Mountain Parkway in the public right-of-way.

Construction of the V-9 turnout would be by open cut trenching. To connect the pump station to the existing 42-inch water transmission pipeline (Magic Mountain Pipeline), some work may be required in public right-of-way in Magic Mountain Parkway. Construction of the 16-inch and 24-inch distribution pipelines in Magic Mountain Parkway would be completed by open cut trenching. The trench would have maximum depth of 6 feet below ground surface and width of 4 feet (2 feet on either side). All construction would take place within the Magic Mountain Parkway right-of-way. Construction staging for would be located at the pump station site.

It is anticipated that in order to make proposed connections to the existing Magic Mountain Pipeline, dewatering and discharge into local storm drains along Magic Mountain Parkway would be required. Discharges into the storm drain would require a permit from County of Los Angeles Department of Public Works (LACDPW) with pre-approved discharge locations. In addition, coordination with the California Department of Fish & Wildlife (CDFW) would be required if significant discharges to the Santa Clara River, are required.

3 PROFESSIONAL STANDARDS

The Society of Vertebrate Paleontology (SVP) has established standard guidelines that outline professional protocols and practices for conducting paleontological resource assessments and surveys, monitoring and mitigation, data and fossil recovery, sampling procedures, and specimen preparation, identification, analysis, and curation (SVP 1995, 2010). Most practicing professional vertebrate paleontologists adhere closely to the SVP's assessment, mitigation, and monitoring requirements as specifically provided in its standard guidelines. Most state regulatory agencies with paleontological laws, ordinances, regulations, and standards accept and use the professional standards set forth by the SVP. As defined by the SVP (2010:11), significant paleontological resources are:

fossils and fossiliferous deposits, here defined as consisting of identifiable vertebrate fossils, large or small, uncommon invertebrate, plant, and trace fossils, and other data that provide taphonomic, taxonomic, phylogenetic, paleoecologic, stratigraphic, and/or biochronologic information. Paleontological resources are considered to be older than

recorded human history and/or older than middle Holocene (i.e., older than about 5,000 radiocarbon years).

Numerous paleontological studies have developed criteria for the assessment of significance for fossil discoveries (e.g., Eisentraut and Cooper 2002; Murphey et al. 2019; Scott and Springer 2003). In general, these studies assess fossils as significant if one or more of the following criteria apply:

1. The fossils provide information on the evolutionary relationships and developmental trends among organisms, living or extinct;
2. The fossils provide data useful in determining the age(s) of the rock unit or sedimentary stratum, including data important in determining the depositional history of the region and the timing of geologic events therein;
3. The fossils provide data regarding the development of biological communities or interaction between paleobotanical and paleozoological biotas;
4. The fossils demonstrate unusual or spectacular circumstances in the history of life; or
5. The fossils are in short supply and/or are in danger of being depleted or destroyed by the elements, vandalism, or commercial exploitation, and are not found in other geographic locations.

A geologic unit known to contain significant fossils is considered sensitive to adverse impacts if there is a high probability that earth-moving or ground-disturbing activities in that rock unit would either disturb or destroy fossil remains, directly or indirectly. This definition of sensitivity differs fundamentally from the definition for archaeological resources as follows:

It is extremely important to distinguish between archaeological and paleontological (fossil) resource sites when defining the sensitivity of rock units. The boundaries of archaeological sites define the areal extent of the resource. Paleontological sites, however, indicate that the containing sedimentary rock unit or formation is fossiliferous. The limits of the entire rock formation, both areal and stratigraphic, therefore define the scope of the paleontological potential in each case. (SVP 1995:23)

Many archaeological sites contain features visually detectable on the surface. In contrast, fossils are often contained within surficial sediments or bedrock and are therefore not observable or detectable unless exposed by erosion or human activity.

In summary, paleontologists cannot know either the quality or quantity of fossils prior to natural erosion or human-caused exposure. As a result, even in the absence of fossils on the surface, it is necessary to assess the sensitivity of rock units based on their known potential to produce significant fossils elsewhere within the same geologic unit (both within and outside the study area), a similar geologic unit, or whether the unit in question was deposited in a type of environment known to be favorable for fossil preservation. Monitoring by experienced paleontologists greatly increases the probability that fossils will be discovered during ground-disturbing activities and that, if these remains are significant, successful mitigation and salvage efforts may be undertaken to prevent adverse impacts to these resources.

4 REGULATORY SETTING

Paleontological resources are limited, nonrenewable resources of scientific, cultural, and educational value and are afforded protection under federal and state laws and regulations. This study satisfies project requirements in accordance with state and local regulations and was conducted as a means of characterizing the existing conditions consistent with the application of the screening criteria defined in Appendix G of the State CEQA Guidelines (as amended December 28, 2018). This analysis also complies

with guidelines and criteria specified by the SVP (2010) and follows best practices in mitigation paleontology (Murphey et al. 2019).

4.1 State Regulations

4.1.1 California Environmental Quality Act

CEQA is the principal statute governing environmental review of projects occurring in the state and is codified at California Public Resources Code (PRC) Section 21000 et seq. CEQA requires lead agencies to determine if a proposed project would have a significant effect on the environment, including significant effects on paleontological resources. Guidelines for the Implementation of CEQA, as amended December 28, 2018 (Title 14, Chapter 3, California Code of Regulations 15000 et seq.), define procedures, types of activities, persons, and public agencies required to comply with CEQA. Section VII(f) of the Environmental Checklist (State CEQA Guidelines Appendix G) asks whether a project would directly or indirectly destroy a unique paleontological resource and result in impacts to the environment.

4.1.2 Public Resources Code Section 5097.5

Requirements for paleontological resource management are included in PRC Division 5, Chapter 1.7, Section 5097.5, which states the following:

No person shall knowingly and willfully excavate upon, or remove, destroy, injure or deface any historic or prehistoric ruins, burial grounds, archaeological or vertebrate paleontological site, including fossilized footprints, inscriptions made by human agency, or any other archaeological, paleontological or historical feature, situated on public lands, except with the express permission of the public agency having jurisdiction over such lands. Violation of this section is a misdemeanor.

These statutes prohibit the removal, without permission, of any paleontological site or feature from land under the jurisdiction of the state or any city, county, district, authority, or public corporation, or any agency thereof. Consequently, local agencies are required to comply with PRC Section 5097.5 for their own activities, including construction and maintenance, as well as for permit actions (e.g., encroachment permits) undertaken by others. PRC Section 5097.5 also establishes the removal of paleontological resources as a misdemeanor and requires reasonable mitigation of adverse impacts to paleontological resources from developments on public (state, county, city, and district) land.

4.2 Local Regulations

4.2.1 City of Santa Clarita General Plan

The Conservation and Open Space Element of the City of Santa Clarita General Plan (City of Santa Clarita 2011) does not explicitly mention paleontological resources. However, Goal CO 5 requires “Protection of historical and culturally significant resources that contribute to community identity and a sense of history” (City of Santa Clarita 2011). This goal may be applicable to paleontological resources.

5 METHODS

The following sections present an overview of the methodology used to analyze the potential for paleontological resources within the project site. This report conforms to industry standards as developed by the SVP (1995, 2010) and best practices in mitigation paleontology (Murphey et al. 2019).

The purpose of this analysis is to: (1) determine whether any previously recorded fossil localities occur in the project site; (2) if so, assess the potential for disturbance of these localities during construction; and (3) evaluate the potential of new, or previously unrecorded, fossil localities within the project site.

5.1 Existing Data Analysis

SWCA conducted an analysis of available existing data pertinent to paleontological resources. This analysis included a review of geologic maps, scientific literature, and museum records search results. The geologic map used in this analysis includes Yerkes and Campbell (1995) at a scale of 1:24,000 (GIS from Yerkes and Campbell [1997]). The museum records search was submitted to the NHMLA on August 14, 2020. The results of the museum records search were received on August 15, 2020, and are incorporated into Section 6 of this report. A copy of the museum records search results from NHMLA is also included in a confidential Appendix A.

5.2 Paleontological Potential Classification

Paleontological potential is defined as the potential for a geologic unit to produce scientifically significant fossils. This is determined by rock type, history of the geologic unit in producing significant fossils, and fossil localities recorded from that unit. Paleontological sensitivity is derived from the known fossil data collected from the entire geologic unit, not just from a specific survey. In its *Standard Procedures for the Assessment and Mitigation of Adverse Impacts to Paleontological Resources*, the SVP (2010:1–2) defines four categories of paleontological sensitivity (potential) for rock units: high, low, undetermined, and no potential:

High Potential. Rock units from which vertebrate or significant invertebrate, plant, or trace fossils have been recovered are considered to have a high potential for containing additional significant paleontological resources. Rocks units classified as having high potential for producing paleontological resources include, but are not limited to, sedimentary formations and some volcanoclastic formations (e.g., ash or tephra), and some low-grade metamorphic rocks which contain significant paleontological resources anywhere within their geographical extent, and sedimentary rock units temporally or lithologically suitable for the preservation of fossils (e.g., middle Holocene and older, fine-grained fluvial sandstone, argillaceous and carbonate-rich paleosols, cross-bedded point bar sandstone, fine-grained marine sandstone, etc.). Paleontological potential consists of both a) the potential for yielding abundant or significant vertebrate fossils or for yielding a few significant fossils, large or small, vertebrate, invertebrate, plant, or trace fossils and b) the importance of recovered evidence for new and significant taxonomic, phylogenetic, paleoecologic, taphonomic, biochronologic, or stratigraphic data. Rock units which contain potentially datable organic remains older than late Holocene, including deposits associated with animal nests or middens, and rock units which may contain new vertebrate deposits, traces, or trackways are also classified as having high potential.

Low Potential. Reports in the paleontological literature or field surveys by a qualified professional paleontologist may allow determination that some rock units have low potential for yielding significant fossils. Such rock units will be poorly represented by fossil specimens in institutional collections or based on general scientific consensus only preserve fossils in rare circumstances and

the presence of fossils is the exception not the rule, e.g., basalt flows or Recent colluvium. Rock units with low potential typically will not require impact mitigation measures to protect fossils.

Undetermined Potential. Rock units for which little information is available concerning their paleontological content, geologic age, and depositional environment are considered to have undetermined potential. Further study is necessary to determine if these rock units have high or low potential to contain significant paleontological resources. A field survey by a qualified professional paleontologist to specifically determine the paleontological resource potential of these rock units is required before a paleontological resource impact mitigation program can be developed. In cases where no subsurface data are available, paleontological potential can sometimes be determined by strategically located excavations into subsurface stratigraphy.

No Potential. Some rock units have no potential to contain significant paleontological resources, for instance high-grade metamorphic rocks (such as gneisses and schists) and plutonic igneous rocks (such as granites and diorites). Rock units with no potential require no protection or impact mitigation measures relative to paleontological resources. (SVP 2010:1–2)

6 RESULTS

6.1 Regional Geology

The project area is located in the Transverse Ranges geomorphic province, between the Santa Susana Mountains to the south and west and the Sierra Pelona Mountains to the north and east. The Transverse Ranges consist of a complex series of young, east/west-trending mountain ranges and valleys that contradict the general north/south orientation of California's other mountain ranges, such as the Peninsular Ranges and Coastal Ranges (Matti et al. 1992). The Transverse Ranges begin at Point Conception in Santa Barbara County and extend in an easterly direction, terminating at the San Bernardino Mountains in San Bernardino County. Most of the ranges are bounded to the north and east by the San Andreas Fault System, separating the ranges from the Coastal Ranges and Peninsular Ranges. Components of the ranges that lie north of the San Andreas Fault are the Tehachapi Mountains and San Bernardino Mountains. Most of the tallest peaks are in the eastern portion of the range and include Mount San Gorgonio (3,505 meters) and San Bernardino Peak (3,246 meters). The Transverse Ranges are noted for being extremely steep. Most of the Transverse Ranges province lies within the California Chaparral and Woodlands Ecoregion. The lower elevations are composed of chaparral and scrubland, while the higher elevations support conifer forests.

The Transverse Ranges include a wide variety of geologic units, ranging in age from the Proterozoic to the recent (Norris and Webb 1990). In general, a thick sequence of late Mesozoic- and Cenozoic-age strata rest uncomfortably on a variety of basement rocks (Namson and Davis 1988). These ranges are undergoing active north/south shortening due to faulting (Norris and Webb 1990), which causes a significant rise in elevation on an annual scale. These fault-bounded ranges are mainly composed of two distinct types of crystalline basement rocks that are separated by thrust faults. The lower type of rocks consists of metamorphosed sedimentary and volcanic rocks known as the Pelona Schist. The uppermost rock comprises older metamorphic and plutonic rocks that originally formed part of the ancient North American continental platform known as Mendenhall Gneiss and gabbro.

The high rate of uplift has led to a thick package of eroded sediments to accumulate as alluvium along the base. Typically, one can differentiate older Pleistocene alluvium (2.8 million years ago to 10,000 years ago) from the overlying Holocene alluvium due to the nature of the soil and cements. This alluvium

accumulated as fans, river deposits, and lakes. Along some mountain fronts, the oldest Pleistocene deposits may harbor brackish or marine sediments from when sea levels were higher.

6.2 Local Geology and Paleontology

The geology in the project area has been mapped by Yerkes and Campbell (1995) at a scale of 1:24,000 (GIS from Yerkes and Campbell [1997]). The surficial geology of the project area consists of Holocene to late Pleistocene younger alluvium (Qal). Approximately 0.5 km northwest of the project area, the Pleistocene Saugus Formation (Qs) crops out at the surface, along with smaller outcrops of late Pleistocene terrace deposits (Qt), which are also present approximately 400 meters to the south-southwest of the project area. The proximity of these units indicate that they may be present in the subsurface of the project area at an unknown depth. Geologic and paleontological information about these geologic units is summarized below in oldest to youngest geochronological order and is shown in Figure 4.

6.2.1 Saugus Formation (Qs)

Based on paleomagnetic studies of Levi and Yeats (1993), the Saugus Formation (Qs) varies in its age from 2.5 to 0.2 million years old, suggesting a Pleistocene age. In the vicinity of the project area, the Saugus Formation is a terrestrial fluvial deposit consisting of conglomeratic sandstone, muddy siltstone, and conglomerate (Yerkes and Campbell 1995). The Saugus Formation is not mapped at the surface within the bounds of the project area but is mapped immediately outside of the project area to the north; the Saugus Formation likely underlies the younger alluvium (Qal) and/or terrace deposits (Qt) at unknown depth within the project area. Numerous fossil localities have yielded horse, rodent, bird, invertebrate, and plant fossils in the vicinity of the project area (Axelrod and Cota 1993; Geiger and Groves 1999; Groves 1991; Oakeshott 1950; Winterer and Durham 1962; Yeats and McLaughlin 1970).

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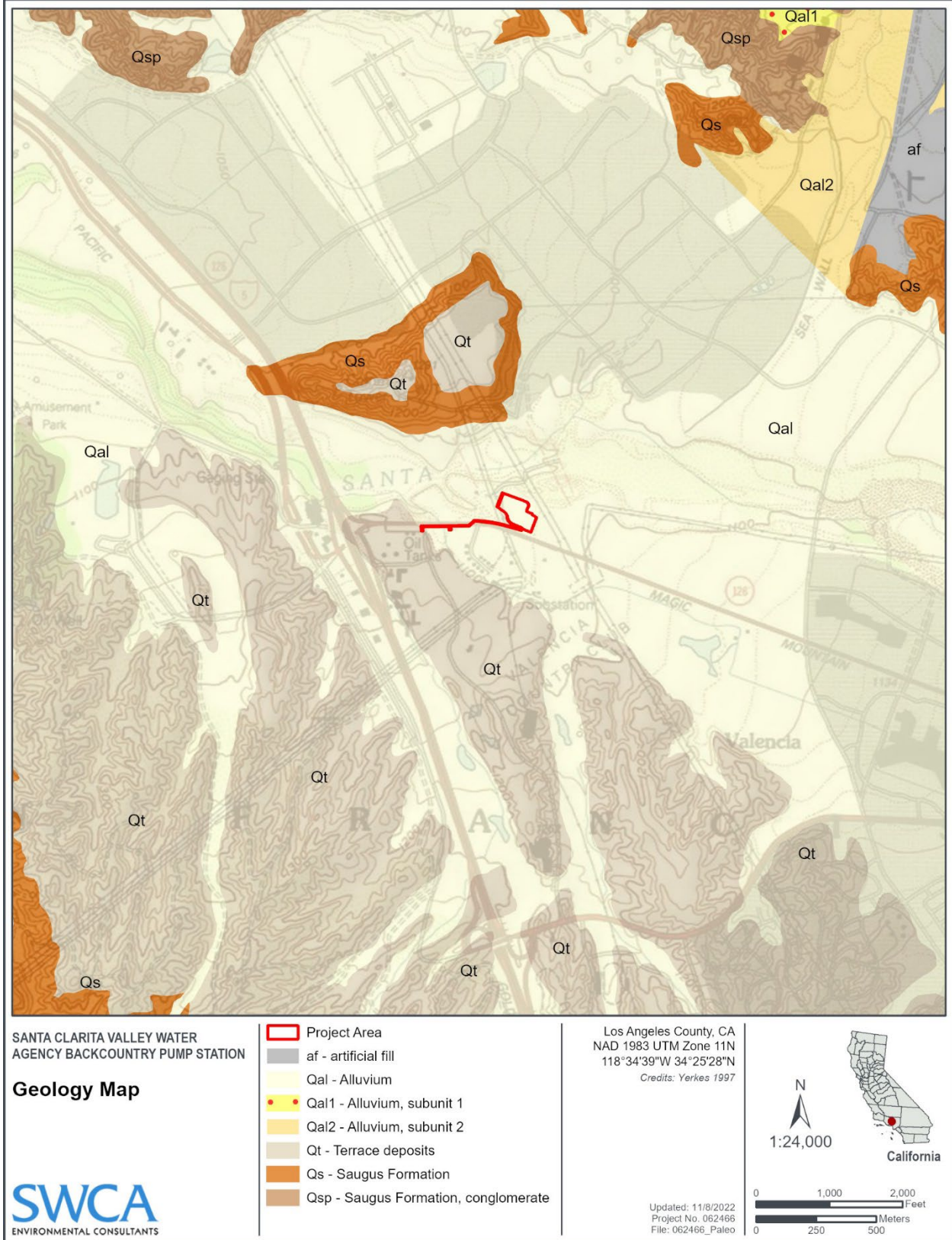


Figure 4. Geologic map of the project site and vicinity.

6.2.2 Terrace Deposits (Qt)

Late Pleistocene terrace deposits (Qt) consist of interbedded coarse sand, silt, and gravel that are massive to poorly bedded and poorly consolidated (Yerkes and Campbell 1995). Terrace deposits are not mapped at the surface within the bounds of the project area but are mapped immediately outside of the project area to the north and south; terrace deposits likely underlie the younger alluvium at unknown depth within the project area. In general, Pleistocene terrestrial alluvial and terrestrial deposits have a rich fossil history in southern California (Brattstrom 1961; Jefferson 1991a, 1991b; McDonald and Jefferson 2008; Miller 1971; Paleobiology Database 2021; Reynolds and Reynolds 1991; Springer et al. 2009; University of California Museum of Paleontology 2021). The most common Pleistocene terrestrial mammal fossils include the bones of mammoth, bison, deer, and small mammals, but other taxa, including horse, lion, cheetah, wolf, camel, antelope, peccary, mastodon, capybara, and giant ground sloth, have been reported (Graham and Lundelius 1994), as well as reptiles, snakes, frogs, and salamanders (Hudson and Brattstrom 1977). These fossils illuminate the striking differences between southern California in the Pleistocene and southern California today, and this abundant fossil record has been vital in studies of extinction (e.g., Barnosky et al. 2004; Sandom et al. 2014; Scott 2010), ecology (e.g., Connin et al. 1998), and climate change (e.g., Roy et al. 1996).

6.2.3 Younger Alluvium (Qal)

Holocene to late Pleistocene younger alluvium (Qal) is mapped at the surface and consists of unconsolidated gravel, sand, silt, and clay that is uncemented, derived as eroded sediment (Yerkes and Campbell 1995) from the surrounding mountains deposited by the Santa Clara River. The depth to the underlying geologic units (i.e., terrace deposits and Saugus Formation) is unknown. Late Holocene (i.e., less than 5,000 years old) deposits are typically too young to contain significant fossils (SVP 2010); however, these deposits typically transition in age to middle to early Holocene (i.e., 5,000 to 10,000 years old) or late Pleistocene at shallow depths. The depth of the transition from late Holocene deposits to middle to early Holocene deposits is unknown, but possibly 10 feet below ground surface. Middle to early Holocene and late Pleistocene alluvial sediments have yielded numerous paleontological resources throughout southern California, similar to those recovered from late Pleistocene terrace deposits and Pleistocene Saugus Formation (see above).

6.3 Museum Records Search

The NHMLA performed a museum records search for paleontological localities within the vicinity of the project site. Based on the results of the museum records search, the NHMLA does not contain records of paleontological resources from within the project site; however, several fossil localities have been recorded within the vicinity of the project site from older alluvium, comparable to the terrace deposits, and the Saugus Formation (NHMLA 2020). The results of the museum records search are summarized in Table 1.

Table 1. NHMLA Fossil Localities near the Project Site

Locality Number	Approximate Distance to the Project Site	Formation	Taxa	Depth
LACM VP 1262	4.5 km	Older alluvium	Undifferentiated vertebrates	Unknown
LACM VP 3397	16 km	Older alluvium	Bison (<i>Bison</i>)	Unknown
LACM VP 6804	3.5 km	Saugus Formation	Horse (Equidae)	Surface
LACM VP 7989	7.3 km	Saugus Formation	Bird (Aves), rodent (Rodentia)	Unknown
LACM VP 6063	5.3 km	Saugus Formation	Horse (<i>Plesippus</i>)	Unknown

Source: NHMLA (2020)

6.4 Paleontological Potential of the Local Geology

Based on the results of the analysis of available existing data pertinent to paleontological resources, SWCA has classified the paleontological potential (i.e., paleontological sensitivity) of the geologic units present at the surface or at depth within the project area using the classification of the SVP (2010) (Figure 5). Holocene to late Pleistocene younger alluvium (Qal) is mapped at the surface of the project area. Late Holocene (i.e., less than 5,000 years old) deposits are typically too young to contain significant fossils (SVP 2010); however, these deposits may transition in age at shallow depths to middle to early Holocene (i.e., 5,000 to 10,000 years old) or late Pleistocene, which have yielded numerous paleontological resources throughout southern California. The depth of the transition from late Holocene deposits to middle to early Holocene deposits is unknown, but possibly 10 feet below ground surface based on other excavations near the present project. Therefore, Holocene to late Pleistocene younger alluvium (Qal) has a Low to High paleontological sensitivity, increasing with depth. Late Pleistocene terrace deposits (Qt) and Pleistocene Saugus Formation (Qs) likely underlie the younger alluvium at unknown depths within the project area. Numerous fossil localities have been reported from the Saugus Formation. Therefore, the late Pleistocene terrace deposits (Qt) and Pleistocene Saugus Formation (Qs) have High paleontological sensitivity.

7 IMPACT ASSESSMENT

This paleontological assessment was conducted to analyze any potential impacts this project may have on paleontological resources located in the project site to comply with CEQA, local regulations, and best practices in paleontological mitigation (Murphey et al. 2019). The project area is immediately underlain by Holocene to late Pleistocene younger alluvium (Qal), which are likely underlain by the late Pleistocene terrace deposits (Qt) and Pleistocene Saugus Formation (Qs). The depth of the transition from late Holocene deposits, which have a Low paleontological sensitivity, to middle to early Holocene deposits and older, which have a High paleontological sensitivity, is unknown but possibly 10 feet below ground surface. Based on the most recent description of the project, ground-disturbing activities will impact sediments at 15 feet below ground surface during construction of the pump building and 6 feet below ground surface during construction of the 16-inch and 24-inch distribution pipelines in Magic Mountain Parkway. Therefore, project-related ground-disturbing activities may impact sediments of High paleontological sensitivity when excavations reach or exceed 10 feet below ground surface. Should fossils be encountered in previously undisturbed sediments at depths of 10 feet below ground surface or greater, they would be at risk for damage or destruction from construction activities, which would constitute an impact under CEQA.

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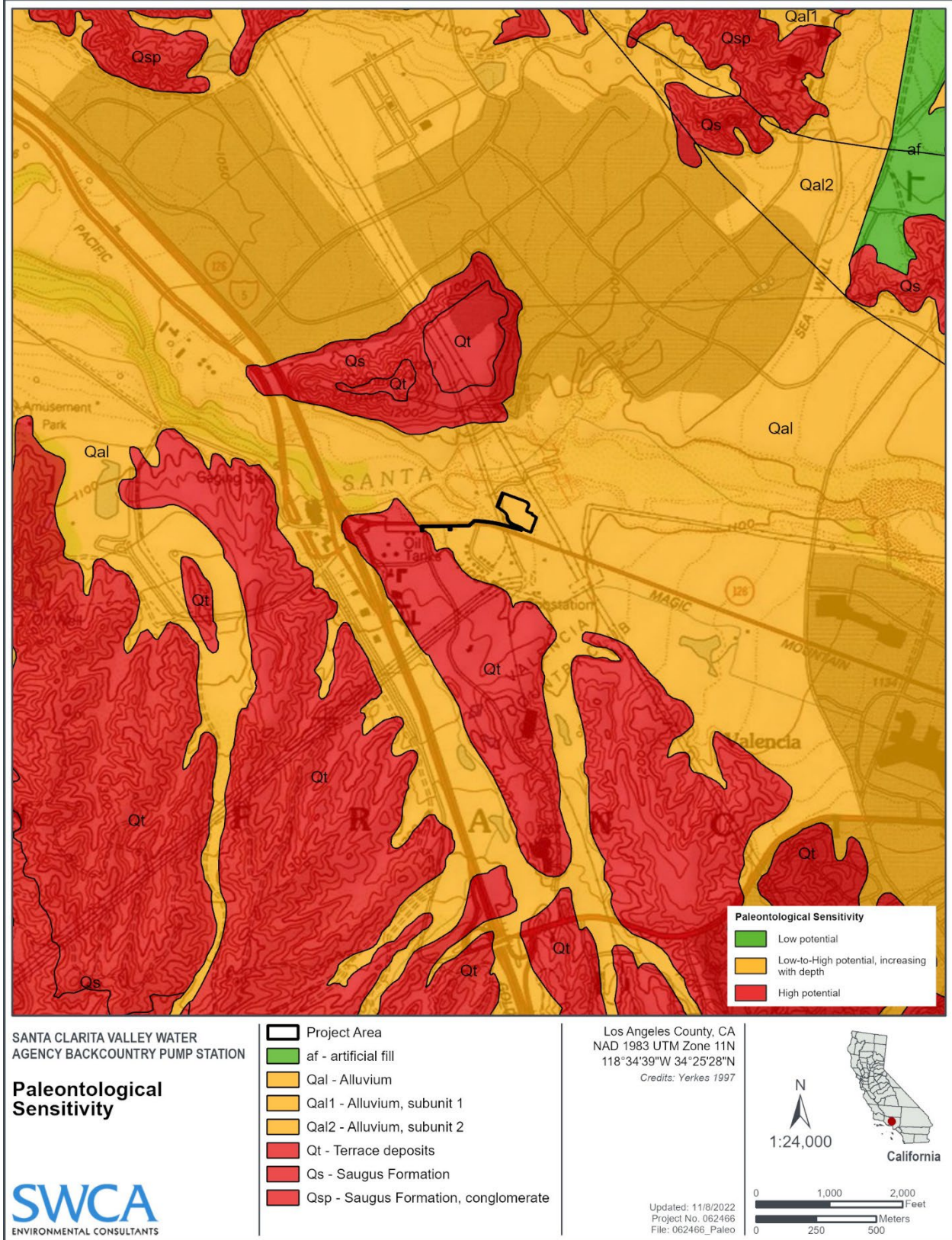


Figure 5. Paleontological sensitivity of the geologic units underlying the project site.

8 CONCLUSIONS AND RECOMMENDATIONS

While no previously recorded paleontological resources have been identified within the project area, the proximity of numerous fossil localities in the vicinity of the project area indicates that younger alluvium (at depths greater than 10 feet below ground surface), as well as the underlying terrace deposits and Saugus Formation present in the subsurface, have High paleontological sensitivity. Younger alluvium less than 10 feet below ground surface is too young to preserve fossils and has a Low paleontological sensitivity. Project-related ground-disturbing activities would impact sediments at 15 feet below ground surface during construction of the pump building and 6 feet below ground surface during construction of the 16-inch and 24-inch distribution pipelines in Magic Mountain Parkway. Therefore, earthwork associated with construction of the pump building would impact sediments of High paleontological sensitivity at depth. Should fossils be encountered during grading, excavation, or other soil-disturbing activities associated with the project, they would be at risk for damage or destruction from construction activities and would constitute an impact under CEQA. The implementation of appropriate mitigation measures will ensure that should fossils be encountered, they are assessed for significance and, if significant, salvaged and curated with an accredited repository. This will reduce the impacts to paleontological resources to less-than-significant levels.

Accordingly, SWCA recommends the mitigation measures outlined below. The mitigation measures have been developed in accordance with, and incorporate the performance standards of, the SVP (1995, 2010) and industry best practices (Murphy et al. 2019). At the discretion of SCV Water, the mitigation measures for paleontological resource may be implemented in concert with those measures established for cultural resources including, but not limited to, preparation of a monitoring program, worker training, monitoring, and reporting. These measures will reduce impacts to paleontological resources to less-than-significant levels.

Pal-1: A Project Paleontologist meeting SVP standards will prepare a Paleontological Resources Monitoring and Mitigation Plan (PRMMP). This plan will address specifics of monitoring and mitigation and comply with the recommendations of the SVP (2010). The Project Paleontologist will also prepare a report of the findings of the monitoring plan after construction is completed.

Pal-2: The Project Paleontologist will develop a Worker's Environmental Awareness Program (WEAP) to train the construction crew on the legal requirements for preserving fossil resources, as well as procedures to follow in the event of a fossil discovery. This training program will be given to the crew before ground-disturbing work commences and will include handouts to be given to new workers as needed.

Pal-3: All ground disturbances in the project area that occur in previously undisturbed sediments at depths greater than or equal to 10 feet below ground surface, which have the potential to impact older sediments of younger alluvium, terrace deposits, and/or Saugus Formation that have High paleontological sensitivity, will require monitoring. The uppermost 10 feet of younger alluvium have Low paleontological sensitivity; therefore, it is recommended that monitoring begin at approximately 10 feet below ground surface.

Monitoring should be conducted by a paleontological monitor who meets the standards of the SVP (2010). Monitoring will be conducted in accordance with the PRMMP and under the supervision of the Project Paleontologist. The Project Paleontologist may periodically inspect construction activities to adjust the level of monitoring in response to subsurface conditions. Full-time monitoring can be reduced to part-time inspections or ceased entirely if determined adequate by the Project Paleontologist. Paleontological monitoring will include inspection of exposed sedimentary units during active excavations within sensitive geologic sediments. The monitor will have authority to temporarily divert activity away from exposed fossils to evaluate the significance of the find and,

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should the fossils be determined to be significant, professionally and efficiently recover the fossil specimens and collect associated data. Paleontological monitors will record pertinent geologic data and collect appropriate sediment samples from any fossil localities.

Pal-4: In the event of a fossil discovery, whether by the paleontological monitor or a member of the construction crew, all work will cease within a 50-foot radius of the find while the Project Paleontologist assesses the significance of the fossil and documents its discovery. Should the fossil be determined significant, it will be salvaged following the procedures and guidelines of the SVP (1995, 2010). Recovered fossils will be prepared to the point of curation, identified by qualified experts, listed in a database to facilitate analysis, and deposited in a designated paleontological curation facility. A repository will be identified and a curatorial arrangement will be signed prior to collection of the fossils.

9 LITERATURE CITED

- Axelrod, D., and J. Cota. 1993. A further contribution to closed-cone pine (*Oocarpae*) history. *American Journal of Botany* 80: 743–751.
- Barnosky, A., C. Bell, S. Emslie, H.T. Goodwin, J. Mead, C. Repenning, E. Scott, and A. Shabel. 2004. Exceptional Record of Mid-Pleistocene Vertebrates Helps Differentiate Climatic from Anthropogenic Ecosystem Perturbations. *Proceedings of the National Academy of Sciences* 101:9297–9302.
- Brattstrom, B.H. 1961. Some new fossil tortoises from western North America with remarks on the zoogeography and paleoecology of tortoises. *Journal of Paleontology* 35(3):543–560.
- City of Santa Clarita. 2011. Conservation and Open Space Element, City of Santa Clarita General Plan, Approved June 2011. 107 pp. Available at: <https://www.codepublishing.com/CA/SantaClarita/html/SantaClaritaGP/6%20-%20Conservation%20and%20Open%20Space%20Element.pdf>. Accessed September 9, 2021.
- Connin, S., J. Betancourt, and J. Quade. 1998. Late Pleistocene C4 Plant Dominance and Summer Rainfall in the Southwestern United States from Isotopic Study of Herbivore Teeth. *Quaternary Research* 50:179–193.
- Eisenraut, P.J., and J.D. Cooper. 2002. *Development of a Model Curation Program for Orange County's Archaeological and Paleontological Collections – Final Report*. Submitted to the County of Orange.
- Geiger, D., and L. Groves. 1999. Review of fossil abalone (Gastropoda: Vetigastropoda: Haliotidae) with comparison to recent species. *Journal of Paleontology* 73: 872–885.
- Graham, R.W., and E.L. Lundelius. 1994. FAUNMAP: A Database Documenting the Late Quaternary Distributions of Mammal Species in the United States. *Illinois State Museum Scientific Papers* XXV(1).
- Groves, L. 1991. *Paleontology and biostratigraphy of the Plio-Pleistocene Lower Saugus Formation, Santa Susana Mountains, Southern California*. California State University Northridge: unpublished Master's Thesis. 371 pp.
- Hudson, D., and B. Brattstrom. 1977. A Small Herpetofauna from the Late Pleistocene of Newport Beach Mesa, Orange County, California. *Bulletin of the Southern California Academy of Sciences* 76:16–20.
- Jefferson, G.T. 1991a. *A Catalogue of Late Quaternary Vertebrates from California: Part One, Nonmarine Lower Vertebrate and Avian Taxa*. Technical Reports No. 5. Los Angeles, California: Natural History Museum of Los Angeles County.
- . 1991b. *A Catalogue of Late Quaternary Vertebrates from California: Part Two, Mammals*. Technical Reports No. 7. Los Angeles, California: Natural History Museum of Los Angeles County.
- Levi, S., and R.S. Yeats. 1993. Paleomagnetic constraints on the initiation of uplift on the Santa Susana fault, western Transverse Ranges, California. *Tectonics* 12: 688–702.

Paleontological Resources Assessment for the Santa Clarita Valley Water Agency Backcountry Pump Station Project, City of Santa Clarita, Los Angeles County, California

- McDonald, H.G., and G.T. Jefferson. 2008. Distribution of Pleistocene Nothrotheriops (Xenartha, Nothrotheridae) in North America. In *Geology and Vertebrate Paleontology of Western and Southern North America*, edited by X. Wang and L. Barnes, pp. 313–331. Science Series 41. Los Angeles, California: Natural History Museum of Los Angeles County.
- Matti, J.C., D.M. Morton, and B.F. Cox. 1992. *The San Andreas fault system in the vicinity of the central Transverse Ranges province, Southern California*. U.S. Geological Survey Open File Report 92-354, 50 pp.
- Miller, W.E. 1971. Pleistocene Vertebrates of the Los Angeles Basin and Vicinity: exclusive of Rancho La Brea. *Bulletin of the Los Angeles County Museum of Natural History* 10.
- Murphey, P.C., G.E. Knauss, L.H. Fisk, T.A. Deméré, and R.E. Reynolds. 2019. Best practices in mitigation paleontology. *Proceedings of the San Diego Society of Natural History* 47.
- Namson, J., and T.L. Davis. 1988. Structural Transect of the Western Transverse Ranges California: Implications for Lithospheric Kinetics and Seismic Risk Evaluation. *Geology* 16:675–679.
- Natural History Museum of Los Angeles County (NHMLA). 2020. Paleontological resources records search for the proposed development at Magic Mountain Pump Station (#62466). Letter report received on August 15, 2020.
- Norris, R.M., and R.W. Webb. 1990. *Geology of California*. Santa Barbara, California: John Wiley & Sons, Inc., pp. 169–173.
- Oakeshott, G.B. 1950. Geology of Placerita oil field, Los Angeles County, California. *California Journal of Mines and Geology* 46:43–79.
- Paleobiology Database. 2021. The Paleobiology Database. Available at: <https://paleobiodb.org/#/>. Accessed August 15, 2021.
- Reynolds, R.E., and R.L. Reynolds. 1991. The Pleistocene Beneath our Feet: Near-surface Pleistocene Fossils in Inland Southern California Basins. In *Inland Southern California: The Last 70 Million Years*, edited by M.O. Woodburne, R.E. Reynolds, and D.P. Whistler, pp. 41–43. *San Bernardino County Museum Special Publication* 38 (3 and 4).
- Roy, K., J. Valentine, D. Jablonski, and S. Kidwell. 1996. Scales of Climatic Variability and Time Averaging in Pleistocene Biotas: Implications for Ecology and Evolution. *Trends in Ecology and Evolution* 11:458–463.
- Sandom, C., S. Faurby, B. Sandel, and J.C. Svenning. 2014. Global Late Quaternary Megafauna Extinctions Linked to Humans, not Climate Change. *Proceedings of the Royal Society B* 281:20133254.
- Scott, E. 2010. Extinctions, Scenarios, and Assumptions: Changes in Latest Pleistocene Large Herbivore Abundance and Distribution in Western North America. *Quaternary International* 217:225–239.
- Scott, E., and K. Springer. 2003. CEQA and Fossil Preservation in California. *Environmental Monitor* Fall:4-10. Sacramento, California: Association of Environmental Professionals.
- Society of Vertebrate Paleontology (SVP). 1995. Assessment and mitigation of adverse impacts to nonrenewable paleontologic resources: standard guidelines. *Society of Vertebrate Paleontology News Bulletin* 163:22–27.

Paleontological Resources Assessment for the Santa Clarita Valley Water Agency Backcountry Pump Station Project, City of Santa Clarita, Los Angeles County, California

- . 2010. *Standard Procedures for the Assessment and Mitigation of Adverse Impacts to Paleontological Resources*. Available at: https://vertpaleo.org/wp-content/uploads/2021/01/SVP_Impact_Mitigation_Guidelines.pdf. Accessed August 15, 2021.
- Springer, K., E. Scott, J.C. Sagebiel, and L.K. Murray. 2009. The Diamond Valley Lake local fauna: late Pleistocene vertebrates from inland southern California. In *Papers on Geology, Vertebrate Paleontology, and Biostratigraphy in Honor of Michael O. Woodburne*, edited by L.B. Albright III, pp. 217–236. *Museum of Northern Arizona Bulletin* 65.
- University of California Museum of Paleontology. 2021. Fossil Locality Database. Available at: <https://ucmp.berkeley.edu/collections/databases/>. Accessed August 15, 2021.
- Winterer, E.L., and D.L. Durham. 1962. Geology of Southeastern Ventura Basin, Los Angeles County, California. *Shorter Contributions to General Geology*. U.S. Geological Survey Professional Paper 334-H:275–366.
- Yeats, R.S., and W.A. McLaughlin. 1970. Potassium-argon mineral age of an ash bed in the Pico Formation, Ventura Basin, California. In *Radiometric Dating and Paleontologic Zonation*, edited by O.L. Bandy, pp. 173–206. Special Paper 124. Boulder, Colorado: Geological Society of America.
- Yerkes, R.F., and R.H. Campbell. 1995. Preliminary geologic map of the Newhall 7.5-minute quadrangle, Southern California. U.S. Geological Survey, Open-File Report 95-800, scale 1:24,000.
- . 1997. Preliminary geologic map of the San Fernando 7.5-minute quadrangle, Southern California: A Digital Database. U.S. Geological Survey, Open-File Report 97-163, scale 1:24,000.

APPENDIX A

**Natural History Museum of Los Angeles County
Paleontological Records Search**

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