Sand Canyon Sewer Relocation

Initial Study – Mitigated Negative Declaration

prepared by

Santa Clarita Valley Water Agency
27234 Bouquet Canyon Road
Santa Clarita, California 91350
Contact: Amy Anderson, Project Manager

prepared with the assistance of

Rincon Consultants, Inc.
250 East 1st Street, Suite 1400
Los Angeles, California 90012

March 2024

RINCON CONSULTANTS, INC. SINCE 1994

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Initial Study

1. Project Title

Sand Canyon Sewer Relocation 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

Jason Yim, Principal Engineer
(661) 513-1277
jyim@scvwa.org

4. Project Location

The approximately 2.4-acre project site is located in the eastern portion of Santa Clarita south of State Route 14. The majority of the project site is located in an undeveloped area adjacent to the north of the Santa Clara River. The approximately 0.7-mile sewer line would begin on an overbank adjacent to the north of the Santa Clara River and south of State Route 14. The sewer line would travel generally east to Sand Canyon Road, where it would redirect north along Sand Canyon Road, then redirect and terminate east in two locations near existing commercial uses. Residential uses are also located adjacent to the north of the project site. Figure 1 shows the regional project site location. Figure 2 shows the project site and project components.

5. Project Sponsor's Name and Address

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

6. General Plan and Zoning Designation

The project site has several General Plan and zoning designations, including Vista Canyon Specific Plan (SP), Urban Residential (UR1) (2 dwelling units/acre), Open Space (OS), and Community Commercial (CC).

Figure 1 Project Location

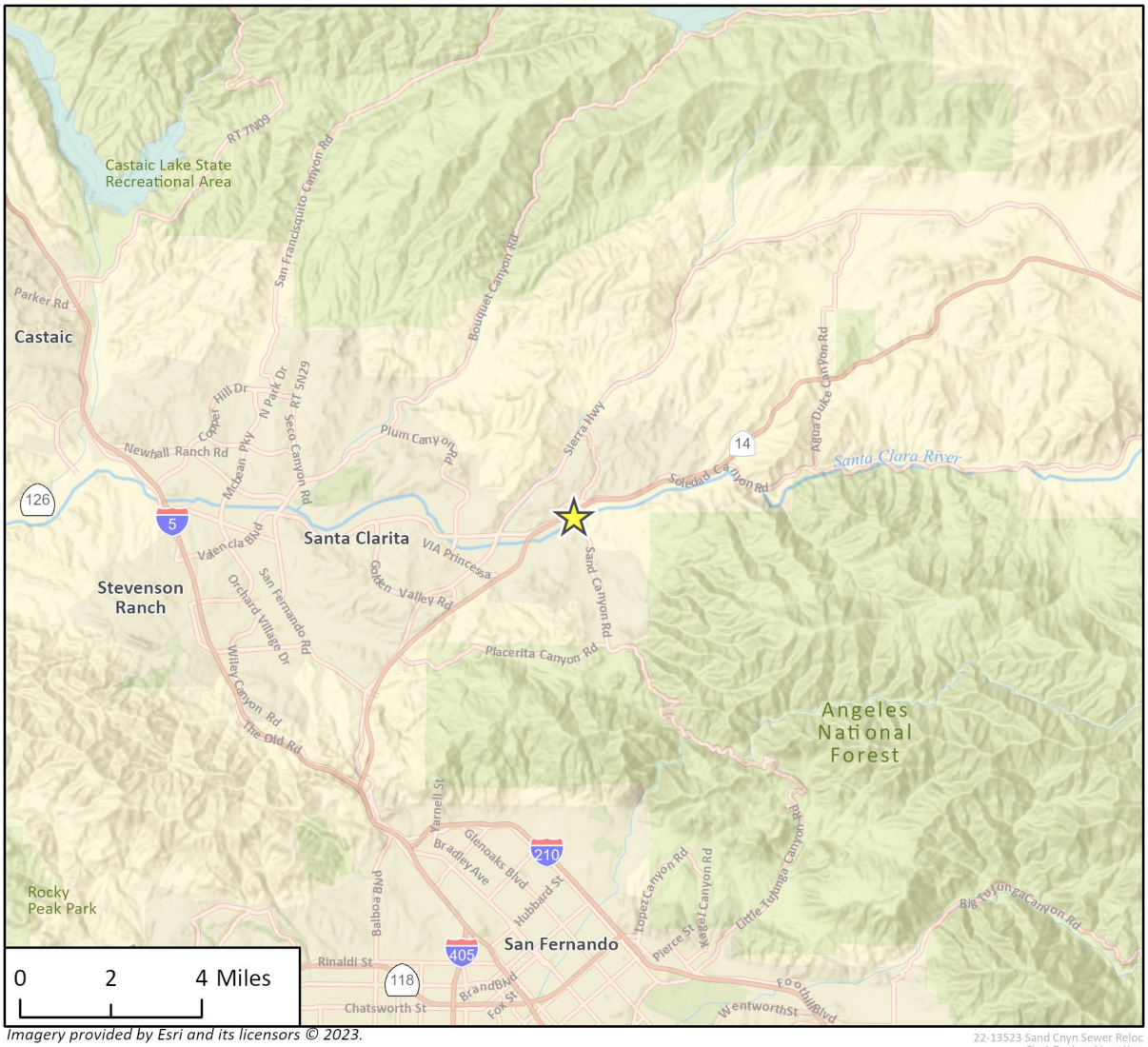

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Fig 1 Regional Location

★ Project Location

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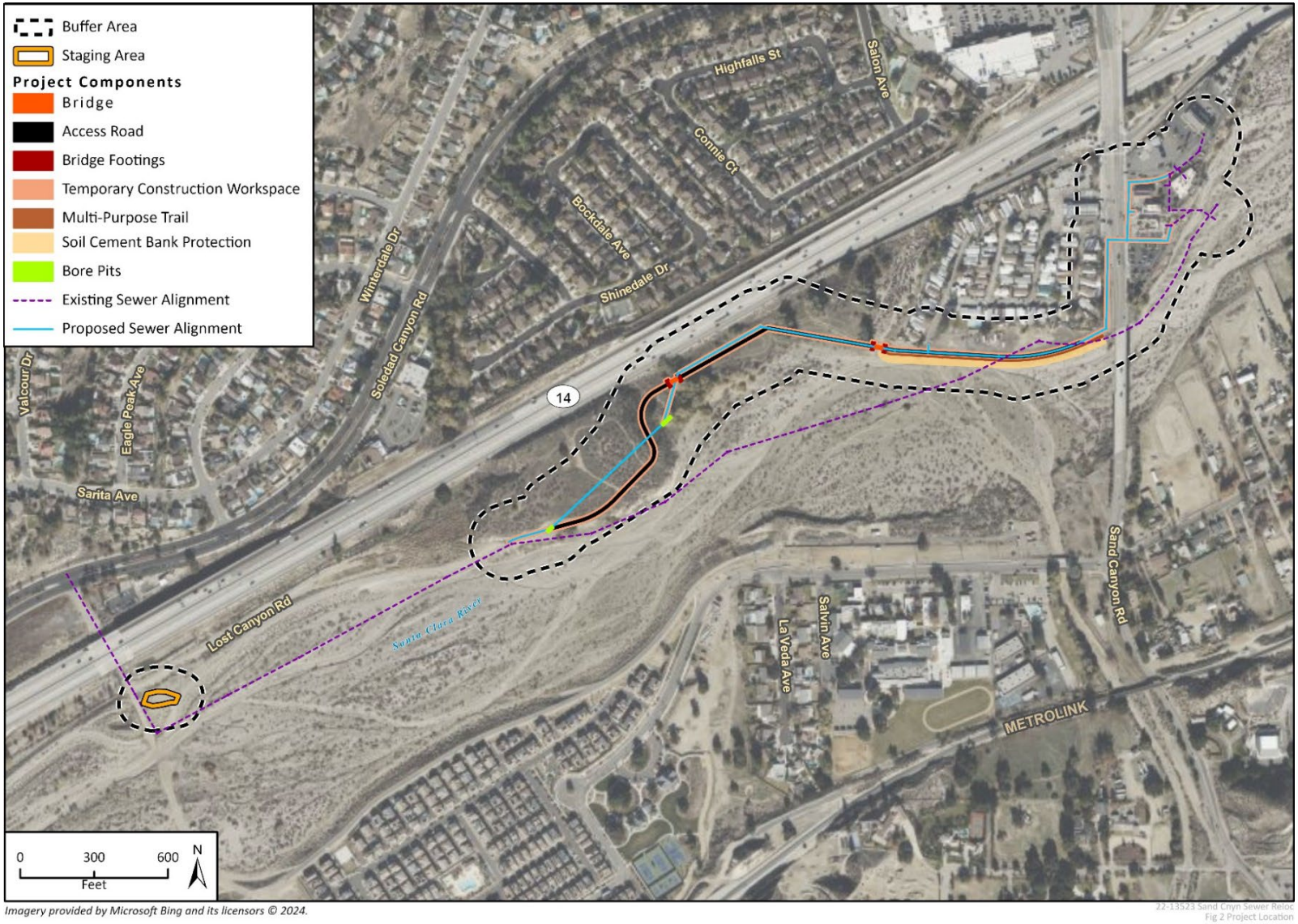
Figure 2 Project Components



7. Description of Project

Project Background

In 2014, the Newhall County Water District prepared and approved an Initial Study-Mitigated Negative Declaration in accordance with the California Environmental Quality Act (CEQA) Guidelines for a project which involved the replacement of approximately 5,700 linear feet of sewer line present in the active channel of the Santa Clara River (2014 project). As part of the 2014 project, the existing sewer line was proposed to be taken out of operation, capped, and abandoned in place and a new sewer line was approved to be constructed through open trenching and jack and bore methods. In addition, the 2014 project included approximately 900 linear feet of soil cement for flood protection purposes, from the northerly Sand Canyon Road Bridge abutment to the westerly end of the mobile home park. The 2014 project has not been developed, and because modifications to the project location and site design have been proposed by the Santa Clarita Valley Water Agency (SCV Water), this new Initial Study-Mitigated Negative Declaration (IS-MND) has been prepared.

Description of Project

The proposed project includes construction of approximately 3,500 linear feet of new 21-inch and 15-inch sewer pipeline on the north side of the Santa Clara River. An existing sewer line extends east from Vista Canyon Boulevard at the State Route 14 undercrossing within the Santa Clara River, crosses under the Sand Canyon Road bridge, and terminates approximately 600 feet east of the bridge. The purpose of the proposed project is to relocate the existing sewer line from within the flow path of the Santa Clara River into the adjacent overbank.

The easternmost end of the proposed sewer line would be located within Sand Canyon Road and would terminate east of Sand Canyon Road near existing commercial uses. The westernmost end of the sewer line would connect to the existing sewer line west of Mitchell Hill. The estimated area of temporary impact totals approximately 104,000 square feet. The project site, which includes the temporary impact footprint, is depicted in Figure 2. Site plans are included as Appendix A.

The existing sewer line would be abandoned in place. The proposed project also includes a 12-foot paved access road and bank protection for the proposed sewer line. The access road would generally overlap the new pipeline but would deviate from the proposed alignment where jack-and-bore construction is proposed. The access road would also include the installation of two 16-foot-wide bridges across existing drainage features.

Proposed bank protection would consist of an 8-foot wide soil cement[1] section with a varied height. The soil cement bank protection would be exposed, and the bed adjacent to the soil cement would be vegetated with native species.

Construction Activities

Construction would begin in early 2025 and would occur over the course of approximately four months. Construction would occur from 8:00 a.m. to 5:00 p.m., Monday through Friday. Nighttime construction lighting is anticipated to be used approximately one hour per day for work occurring

[1] Soil cement is a highly compacted mixture of native soils, cement, and water. As the cement hydrates, it hardens the compacted soil into a strong, durable, low-permeability material. Soil cement bank protection is a state-of-the-art flood control technique used to protect against flooding, bank erosion, and scouring while allowing natural vegetation to develop in the soil over the soil cement resulting in a "soft bank" solution.

past sunset (4:00 p.m. to 5:00 p.m.). Construction activities would involve removal of existing pavement, site preparation, grading, trench preparation, pipe laying, and repaving. While open trenching would be used to install most of the sewer line, jack-and-bore would be used to install approximately 500 linear feet of the sewer line along Mitchell Hill. Excavation would range from approximately 6 feet to a maximum of 11 feet in depth and up to 20 feet in width, including for both the pipeline and the jack-and-bore pits. Construction equipment associated with the 12-foot paved access road would temporarily use an additional 8 feet on either side of the proposed road for a total width of 28 feet. Construction equipment associated with pipeline excavation areas that do not underlie the access road would require a work area width of 20 feet. Construction of the single span bridges would entail an approximately 35-foot by 15-foot area for each footing (two footings would be installed per bridge, located on the banks of the drainages and outside of the drainage features).

The proposed project would involve approximately 5,800 cubic yards of cut and 3,400 cubic yards of fill. Approximately 2,400 cubic yards of soil would be exported from the project site and no soil would be imported. Construction activities would require a temporary one-lane closure along northbound Sand Canyon Road. This closure would occur during daytime hours only. Traffic control measures would be implemented during lane closures, including flaggers at both ends. Construction equipment staging and worker parking would occur adjacent to Vista Canyon Boulevard and the northern bank of the Santa Clara River. Construction would result in the removal of up to 19 trees.

Due to anticipated groundwater levels approximately 12 feet below ground surface at the project site, groundwater is not anticipated to be encountered during excavations of up to 11 feet in depth. However, in the event groundwater is encountered, groundwater dewatering may be required during excavation. Dewatered groundwater would either be treated and discharged into the Santa Clara River in accordance with Los Angeles Regional Water Quality Control Board's (RWQCB) *Waste Discharge Requirements for Discharges of Groundwater from Construction and Project Dewatering to Surface Waters in Coastal Watersheds of Los Angeles and Ventura Counties* (Order No. R4-2023-0429), treated and discharged to the City's storm drain system in accordance with Los Angeles RWQCB's *Waste Discharge Requirements and National Pollutant Discharge Elimination System (NPDES) Permit for Municipal Separate Storm Sewer System (MS4) Discharges Within the Coastal Watersheds of Los Angeles and Ventura Counties* (Phase I MS4; Order No. R4-2021-0105), or discharged to the existing sanitary sewer system for treatment at the Saugus Water Reclamation Plant.

Standard Construction Practices

SCV Water maintains standard contractor specifications that would be applied to the proposed project. These include:

- **Trench Backfill and Compaction/Soils Test/Geotechnical Reports.** The Developer or Contractor shall engage the services of a geotechnical engineering firm or individual licensed in the State of California to monitor soil conditions during earthwork, trenching, bedding, backfill and compaction operations.
- **Public Safety and Traffic Control.** Requires traffic control plans to be submitted to agencies with jurisdiction, as well as as-needed measures such as signs, lights, flares, barricades, traffic plates, etc.
- **Hazardous Waste and Unknown Physical Conditions.** If hazardous waste is discovered, Contractor shall cease work in the impacted area. If material that may be hazardous waste is

discovered, the Developer shall insure that the appropriate government agencies are contacted prior to any further work being performed and that a solution is implemented.

Operation and Maintenance

Upon completion of construction, the proposed project would not require new operations and maintenance activities or electricity consumption beyond existing operations. The anticipated minimum lifetime of the proposed sewer line is 50 years.

8. Surrounding Land Uses and Setting

As shown in Figure 2, the project site is surrounded primarily by residential uses, State Route 14, and commercial uses to the north, the Santa Clara River to the south with residential uses beyond, and open space and State Route 14 to the west. The Mitchell-Dyer Family Cemetery, which is a historical landmark, is located north of the westernmost portion of the project site (south of State Route 14).

9. Other Public Agencies Whose Approval is Required

SCV Water is the lead agency under CEQA for the proposed project. As shown in Table 1, the proposed project would also require approvals from several other agencies.

Table 1 Other Public Agencies Whose Approval is Required

Agency	Approval Required
United States Army Corps of Engineers	Clean Water Act Section 404 Permit
Los Angeles Regional Water Quality Control Board	Clean Water Act Section 401 Water Quality Certification, NPDES Construction Stormwater General Permit
California Department of Fish and Wildlife	Streambed Alteration Agreement
City of Santa Clarita	Vegetation Removal Permit, Wet Weather Erosion Control, approval of dewatering discharge into City storm drain or sewer system (if dewatering is required during construction)

Environmental Factors Potentially Affected

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

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

Determination

Based on this initial evaluation:

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

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

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

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

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

Signature

3-19-24
Date

AMY ANDERSON
Printed Name

PROJECT MANAGER
Title

Environmental Checklist

1 Aesthetics

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Except as provided in Public Resources Code Section 21099, would the project:				
a. Have a substantial adverse effect on a scenic vista?	☐	☐	☐	■
b. Substantially damage scenic resources, including but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	☐	☐	☐	■
c. In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from a publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?	☐	☐	☐	■
d. Create a new source of substantial light or glare that would adversely affect daytime or nighttime views in the area?	☐	☐	■	☐

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

According to the City of Santa Clarita's General Plan Conservation and Open Space Element, scenic resources include natural open spaces, topographic formations, and landscapes that contribute to a high level of visual quality (City of Santa Clarita 2011). The Conservation and Open Space Element describes scenic resources in the Santa Clarita Valley as mountains and canyons, woodlands, water bodies, and Vasquez Rocks County Park. The City's General Plan does not specifically define scenic vistas; therefore, there are no designated scenic vistas in the vicinity of the project site.

The project site is adjacent to the Santa Clara River, which qualifies as a scenic resource pursuant to the definition within the Conservation and Open Space Element. While the project site itself contains undeveloped natural land, it is located in an urban setting and is surrounded by residential uses, State Route 14, and commercial uses. Due to existing development, views of the Santa Clara River are largely obscured from travelers on State Route 14 under existing conditions. Construction activities may result in partial obstruction of views of the Santa Clara River from adjacent residential development southwest of Sand Canyon Road and State Route 14; however, construction would be

temporary and would not result in long-term obstruction of views of the Santa Clara River. Because views of the Santa Clara River are obscured at and north of State Route 14, the proposed access road and bridges south of State Route 14 would not result in additional obstructed views of the Santa Clara River. The proposed pipeline would not obstruct views of the Santa Clara River beyond existing conditions because the pipeline would be installed underground. Accordingly, the proposed project would not have a substantial adverse effect on a scenic vista. No impact would occur.

NO IMPACT

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

The closest state scenic highway is State Route 2, located approximately 17.2 miles southeast (California Department of Transportation [Caltrans] 2018). The project site is not visible from State Route 2. The City of Santa Clarita General Plan does not identify scenic routes or highways in the vicinity of the project site (City of Santa Clarita 2011). Therefore, the project would not substantially damage scenic resources within a state scenic highway or route identified as scenic by the City of Santa Clarita, and no impact would occur.

NO IMPACT

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

The project site is within Santa Clarita, which meets the definition of an urbanized area pursuant to California Public Resources Code Section 21071.[2] Therefore, this analysis is based on the potential for the proposed project to conflict with applicable zoning and other regulations governing scenic quality. Pursuant to California Government Code 53091, the building and zoning ordinances of a county or city do not apply to the location or construction of facilities for the production, storage, or transmission of water, wastewater, or electrical energy by a local agency. Therefore, the discussion below is provided solely for informational purposes.

The project site is within areas zoned Vista Canyon Specific Plan (SP), Urban Residential (UR1) (2 dwelling units/acre), Open Space (OS), and Community Commercial (CC). These zones permit public service infrastructure. The proposed project would not interfere with established setbacks in these zones and would not exceed height requirements or otherwise interfere with regulations governing scenic quality in these zones. Therefore, the proposed project would not conflict with applicable zoning and regulations governing scenic quality, and no impact would occur.

NO IMPACT

[2] California Public Resources Code Section 21071 defines an "urbanized area" as an incorporated city that has a population of at least 100,000 persons. The population of Santa Clarita is approximately 230,659 people (California Department of Finance 2023).

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

During construction, the proposed project would involve staging construction equipment and materials on the site in designated staging areas which may temporarily result in new sources of light or glare in the project area. Nighttime construction is anticipated to be used approximately one hour per day for work occurring past sunset. Light during construction would be temporary and limited to the construction period, expected to be four months, and only occur for a short period of the day. During operation, the new sewer line, access road, bridges, and soil bank protection would not include exterior lighting or be coated with reflective materials that would generate a substantial new source of light or glare. Therefore, the project would not create a new source of substantial light or glare that would adversely affect day or nighttime views in the area. This impact would be less than significant.

LESS THAN SIGNIFICANT IMPACT

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2 Agriculture and Forestry Resources

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project:				
a. Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	☐	☐	☐	■
b. Conflict with existing zoning for agricultural use or a Williamson Act contract?	☐	☐	☐	■
c. Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code Section 12220(g)); timberland (as defined by Public Resources Code Section 4526); or timberland zoned Timberland Production (as defined by Government Code Section 51104(g))?	☐	☐	☐	■
d. Result in the loss of forest land or conversion of forest land to non-forest use?	☐	☐	☐	■
e. Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland to non-agricultural use or conversion of forest land to non-forest use?	☐	☐	☐	■

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

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

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

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

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

The project site is located in an area designated as "Urban and Built-Up Land" and "Other Land" by the California Department of Conservation (DOC), and does not contain Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (DOC 2022a). The project site is not subject to an existing Williamson Act contract (DOC 2022b). The project site is not zoned for agricultural use, forestland, timberland, or timberland zoned Timberland Production. No agricultural uses or forest land exists on the project site. Therefore, the proposed project would not impact agriculture or forestry resources.

NO IMPACT

3 Air Quality

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

Overview of Air Pollution

The federal and State Clean Air Acts (CAA) mandate the control and reduction of certain air pollutants. Under these laws, the United States Environmental Protection Agency (USEPA) and the California Air Resources Board (CARB) have established the National Ambient Air Quality Standards (NAAQS) and the California Ambient Air Quality Standards (CAAQS) for "criteria pollutants" and other pollutants. Some pollutants are emitted directly from a source (e.g., vehicle tailpipe, an exhaust stack of a factory, etc.) into the atmosphere, including carbon monoxide, volatile organic compounds (VOC)/reactive organic gases (ROG),[3] nitrogen oxides (NO_X), particulate matter with diameters of ten microns or less (PM_{10}) and 2.5 microns or less ($PM_{2.5}$), sulfur dioxide, and lead. Other pollutants are created indirectly through chemical reactions in the atmosphere, such as ozone, which is created by atmospheric chemical and photochemical reactions primarily between VOC and NO_X. Secondary pollutants include oxidants, ozone, and sulfate and nitrate particulates (smog). Air pollutants can be generated by the natural environment, such as when high winds suspend fine dust particles.

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

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

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

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

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

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

Air Quality Standards and Attainment

The project site is located is located in the South Coast Air Basin (SCAB), which is under the jurisdiction of the South Coast Air Quality Management District (SCAQMD). As the local air quality management agency, SCAQMD is required to monitor air pollutant levels to ensure that the NAAQS and CAAQS are met and, if they are not met, to develop strategies to meet the standards. Depending on whether the standards are met or exceeded, the SCAB is classified as being in "attainment" or "nonattainment." In areas designated as non-attainment for one or more air pollutants, a cumulative air quality impact exists for those air pollutants. As the local air quality management agency, SCAQMD must monitor air pollutant levels to ensure that the NAAQS and CAAQS are met. If they are not met, the SCAQMD must develop strategies for their region to meet the standards. The strategies to achieve attainment status are included as part of the Air Quality Management Plan (AQMP). The SCAB is currently designated nonattainment for the ozone NAAQS and CAAQS, the PM_{10} CAAQS, and the $PM_{2.5}$ NAAQS and CAAQS. The Los Angeles County portion of the SCAB is also designated nonattainment for lead (CARB 2022a). The proposed project is in Los Angeles County which is within the SCAB and under the jurisdiction of the SCAQMD. This nonattainment status results from several factors, the primary ones being the naturally diverse meteorological conditions that limits the dispersion and diffusion of pollutants, the limited capacity of the local airshed to eliminate air pollutants, and the number, type, and density of emission sources within the SCAB. The attainment status for Los Angeles County portion of SCAB is included in Table 2.

Table 2 Attainment Status of Criteria Pollutants in Los Angeles County of SCAB

Pollutant	State Designation	Federal Designation
Ozone	Nonattainment	Nonattainment
PM_{10}	Nonattainment	Attainment
$PM_{2.5}$	Nonattainment	Nonattainment
CO	Attainment	Attainment
NO_2	Attainment	Attainment
SO_2	Attainment	Attainment
Lead	Attainment	Nonattainment

Sources: CARB 2022a

Air Quality Management Plan

To meet the NAAQS and CAAQS, the SCAQMD has adopted a series of AQMPs that serve as a regional blueprint to develop and implement an emission reduction strategy that will bring the area into attainment with the standards in a timely manner. The most significant air quality challenge in the Air Basin is to reduce NO_X emissions to meet the 2037 ozone standard deadline for the non-Coachella Valley portion of the SCAB, as NO_X plays a critical role in the creation of ozone. The 2022 AQMP includes strategies to ensure the SCAQMD does its part to further the district's ability to meet the 2015 federal ozone standards (SCAQMD 2022). The 2022 AQMP builds on the measures already in place from the previous AQMPs and includes a variety of additional strategies such as regulation, accelerated deployment of available cleaner technology, best management practices, co-benefits from existing programs, incentives, and other Clean Air Act measures to meet the 8-hour ozone standard.

The SCAQMD's strategy to meet the NAAQS and CAAQS distributes the responsibility for emission reductions across federal, State, and local levels and industries. The majority of these emissions are from heavy-duty trucks, ships, and other State and federally regulated mobile source emissions that the majority of which are beyond SCAQMD's control. The SCAQMD has limited control over truck emissions with rules such as Rule 1196. In addition to federal action, the 2022 AQMP relies on substantial future development of advanced technologies to meet the standards, including the transition to zero- and low-emission technologies. The AQMP also incorporates the transportation strategy and transportation control measures from Southern California Association of Governments (SCAG)'s 2020-2045 Regional Transportation Plan/Sustainable Communities Strategy (Connect SoCal) (SCAG 2020).

Air Emission Thresholds

The SCAQMD approved the *CEQA Air Quality Handbook* in 1993. Since then, the SCAQMD has provided supplemental guidance on their website to address changes to the methodology and nature of CEQA. Some of these changes include recommended thresholds for emissions associated with both construction and operation of the project are used to evaluate a project's potential regional and localized air quality impacts (SCAQMD 2023). Table 3 presents the significance thresholds for regional construction and operational-related criteria air pollutant and precursor emissions being used for the purposes of this analysis.

Table 3 SCAQMD Regional Significance Thresholds

Construction Thresholds	Operational Thresholds
75 pounds per day of VOC	55 pounds per day of VOC
100 pounds per day of NO_X	55 pounds per day of NO_X
550 pounds per day of CO	550 pounds per day of CO
150 pounds per day of SO_X	150 pounds per day of SO_X
150 pounds per day of PM_{10}	150 pounds per day of PM_{10}
55 pounds per day of $PM_{2.5}$	55 pounds per day of $PM_{2.5}$

VOC: volatile organic compound; NO_X: nitrogen oxides; CO: carbon monoxide; SO_X: sulfur oxides; PM_{10}: particulate matter measuring 10 microns in diameter or less; $PM_{2.5}$: particulate matter measuring 2.5 microns in diameter or less

Source: SCAQMD 2023

In addition to the above regional thresholds, the SCAQMD has developed Localized Significance Thresholds (LSTs) in response to concern regarding exposure of individuals to criteria pollutants in local communities. LSTs have been developed for NO_X, CO, PM_{10}, and $PM_{2.5}$ and 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. LSTs take into consideration ambient concentrations in each source receptor area (SRA), distance to the sensitive receptor, and project size. LSTs have been developed for emissions generated in construction areas up to five acres in size. LSTs only apply to emissions in a fixed stationary location and are not applicable to mobile sources, such as cars on a roadway (SCAQMD 2009).

The project site is within SRA 13 (Santa Clarita Valley). SCAQMD provides LST lookup tables for project sites that measure one, two, or five acres. The project disturbance area is approximately 2.4 acres; therefore, this analysis conservatively utilizes the two-acre LSTs. LSTs are provided for receptors at distances of 82, 164, 328, 656, and 1,640 feet from the project disturbance boundary to the sensitive receptors. The project analysis assumes construction activity would occur immediately adjacent to single-family residence sensitive receptors located approximately 25 feet from the project site to the north. The allowable emissions for the project analysis uses the 82-foot threshold. The LST threshold for construction for the proposed project is shown in Table 4.

Table 4 SCAQMD LSTs for Construction and Operation

	Allowable Emissions for a two-Acre Site in SRA 13 for a Receptor 82 Feet Away (pounds per day)	
Pollutant	**Construction**	**Operation**
Gradual conversion of NO_X to NO_2	90.6[1]	90.6[1]
CO	877.0	877.0
PM_{10}	6.0	2.0
$PM_{2.5}$	3.2[2]	0.8[2]

NO_x = nitrogen oxides; NO_2 = nitrogen dioxide; CO = carbon monoxide; PM_{10} = particulate matter with a diameter no more than 10 microns; $PM_{2.5}$ = particulate matter with a diameter no more than 2.5 microns. CAAQS = California Ambient Air Quality Standards; SCAQMD = South Coast Air Quality Management District; USEPA = United States Environmental Protection Agency, NAAQS = National Ambient Air Quality Standards; LST = Localized Significance Threshold

[1] The screening criteria for NOx were developed based on the 1-hour NO_2 CAAQS of 0.18 ppm. Subsequently to publication of the SCAQMD's guidance the USEPA has promulgated a 1-hour NO_2 NAAQS of 0.100 ppm. This is based on a 98th percentile value, which is more stringent than the CAAQS. Because SCAQMD's LSTs have not been updated to address this new standard, to determine if project emissions would result in an exceedance of the 1-hour NO_2 NAAQS, an approximated LST was estimated to evaluate the federal 1-hour NO_2 standard. The revised LST threshold is calculated by scaling the NO_2 LST for by the ratio of 1-hour NO_2 standards (federal/state) (i.e., 163 pounds/day * (0.10/0.18) = 90.6 pounds/day).

[2] The screening criteria for $PM_{2.5}$ were developed based on an Annual CAAQS of 15 mg/m^3. Subsequently to publication of the SCAQMD's guidance the annual standard was reduced to 12 mg/m^3. Because SCAQMD's LSTs have not been updated to address this new standard, to determine if project emissions would result in an exceedance of the annual $PM_{2.5}$ CAAQS, an approximated LST was estimated. The revised LST threshold is calculated by scaling the $PM_{2.5}$ LST for by the ratio of 24-hour $PM_{2.5}$ standards (federal/state) (i.e., 4 and 1 pound/day * (12/15) = 3.2 and 0.8 pound/day).

Source: SCAQMD 2008a

Toxic Air Containments Thresholds

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

million risk. In addition, non-carcinogenic health risks are assessed in terms of a hazard index. A project would result in a potentially significant impact if it would result in a chronic and acute hazard index greater than 1.0 (SCAQMD 2023).

Methodology

Air pollutant emissions generated by project construction were estimated using the California Emissions Estimator Model (CalEEMod), version 2022.1. CalEEMod uses project-specific information, including land use, square footage for different uses, and location, to model a project's construction and operational emissions.

Project construction would primarily generate temporary criteria pollutants from on-site construction equipment operation, construction worker vehicle trips to and from the site, and off-site export of materials. Construction of the proposed project was analyzed based on pipeline details provided by SCV Water, which includes constructing 3,500 linear feet (LF) of new 21-inch and 15-inch sewer pipeline. The estimated area of temporary impact totals approximately 104,000 square feet. Project construction would begin in early 2025 and would occur over the course of approximately four months. The proposed project would involve approximately 5,800 cubic yards of cut and 3,400 cubic yards of fill. Approximately 2,400 cubic yards of soil would be exported from the project site and no soil would be imported. Excavation would range from approximately 6 to 11 feet deep. Construction equipment associated with the 12-foot access road would temporarily use an additional 8 feet on either side of the proposed road. The CalEEMod modeling results assume the use of diesel-powered construction equipment, and that the project would comply with applicable regulatory standards. In particular, the project would comply with SCAQMD Rule 403 for dust control measures.

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

The proposed project would be inconsistent with the SCAQMD 2022 Air Quality Management Plan (AQMP) if the proposed project would generate population, housing, or employment growth exceeding forecasts used in the development of the AQMP. The 2022 AQMP incorporates local general plans and the SCAG's Connect SoCal socioeconomic forecast projections of regional population, housing, and employment growth.

As described in Environmental Checklist Section 14, *Population and Housing*, the proposed project would not cause direct growth as the project does not propose the introduction of new residences, businesses, or other land uses which would generate population growth. The proposed project would not result in indirect growth because the proposed sewer pipeline is intended to replace an existing sewer pipeline rather than serve an undeveloped area. Given the small-scale nature of project construction activities, it is likely construction workers would be drawn from the existing, regional workforce and would not indirectly result in the relocation of people to Santa Clarita. Upon completion of construction, the proposed project would not require additional staff because the proposed project would not require new operations and maintenance activities. Accordingly, the proposed project would not result in population growth and therefore would not have the potential to conflict with or obstruct implementation of the 2022 AQMP. No impact would occur.

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

Construction

Project construction would generate temporary air pollutant emissions associated with fugitive dust (PM_{10} and $PM_{2.5}$) and exhaust emissions from heavy construction equipment and construction vehicles. In addition, construction would release VOC emissions during the drying of the paving phase. Table 5 summarizes the estimated maximum daily emissions of pollutants during project construction. As shown therein, construction-related emissions would not exceed SCAQMD thresholds. Therefore, project construction would not result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or State ambient air quality standard. Impacts would be less than significant.

Table 5 Estimated Maximum Daily Construction Emissions

	Pollutant (pounds/day)					
Construction	**VOC**	**NO_x**	**CO**	**SO_2**	**PM_{10}**	**$PM_{2.5}$**
2025	3	36	35	<1	5	2
SCAQMD Regional Threshold	**75**	**100**	**550**	**150**	**150**	**55**
Threshold Exceeded?	No	No	No	No	No	No

pounds/day = pounds per day; VOC = volatile organic compounds NO_X = nitrogen oxides; CO = carbon monoxide; SO_2 = sulfur dioxide; PM_{10} = particulate matter 10 microns in diameter or less; $PM_{2.5}$ = particulate matter 2.5 microns or less in diameter

Source: CalEEMod worksheets in Appendix B, see Table 2.3 "Construction Emissions by Year, Mitigated" emissions. Highest of Summer and Winter emissions results are shown for all emissions. The mitigated emissions account for project sustainability features and/or compliance with specific regulatory standards.

Operation

The project would not require new operations and maintenance activities within the SCV Water service area upon completion of construction activities. Therefore, no new operational emissions would be generated, and project operation would not result in a cumulatively considerable net increase of any criteria pollutant for which the project region is in non-attainment under an applicable federal or State ambient air quality standard. No impact would occur.

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

Sensitive Receptors

According to SCAQMD, sensitive receptors include residences, schools, playgrounds, childcare centers, long-term healthcare facilities, rehabilitation centers, convalescent centers, and retirement homes (SCAQMD 2005). Sensitive receptors nearest to the project site consist of single-family residences adjacent to the project site approximately 25 feet to the north, as well as the Sulphur Springs Elementary School, Gorman Learning Center Santa Clarita Resource Center, and single-family residences approximately 0.16 mile south of the project site. Because the project would not result in an increase of operational vehicle trips, this project would not emit the levels of CO necessary to result in a localized hot spot. Therefore, CO hotspots are not discussed further in this document. The project does not include any stationary sources of air pollutant emissions, and once construction is complete, the proposed project would not require additional operation and maintenance activities beyond those already occurring to operate and maintain the SCV Water

system. Therefore, project operation would not expose sensitive receptors to substantial pollutant concentrations and is not discussed further. Localized air quality impacts to sensitive receptors typically result from localized criteria air pollutant emissions and TACs, which are discussed in the following subsections.

Localized Significance Thresholds

The *Final LST Methodology* was developed to be used as a tool to analyze localized impacts associated with specific proposed projects. If the calculated emissions for the proposed construction or operational activities are below the LST emission levels found on the LST mass rate look-up tables (Appendix C of *Final LST Methodology;* SCAQMD 2009) and no potentially significant impacts are found to be associated with other environmental issues, then the proposed construction or operation activity is not considered to be a significant impact on air quality. The project analysis assumes construction activity would occur adjacent to the single-family residences to the north. The pipeline installation would occur approximately 25 feet south of the single-family residences and the staging area would be located approximately 70 feet south of the single-family residences. According to the *Final LST Methodology,* projects with boundaries located closer than 82 feet to the nearest receptor would utilize LST thresholds for receptors located at 82 feet. Therefore, the allowable emission for the project utilizes the 82-foot receptor distance, and the project is in SRA 13 (Santa Clarita Valley). Table 6 summarizes the project's maximum localized daily construction emissions from the proposed project. As shown therein, localized construction emissions would not exceed the SCAQMD LST thresholds and impacts would be less than significant.

Table 6 Project LST Construction Emissions

	Pollutant (pounds/day)			
Year	**NO_X**	**CO**	**PM_{10}**	**$PM_{2.5}$**
Maximum Construction On-site Emissions	27.3	29.4	1.2	1.1
SCAQMD LST	**90.6**	**877.0**	**6.0**	**3.2**
Threshold Exceeded?	No	No	No	No

pounds/day = pounds per day; NO_x = nitrogen oxide; CO = carbon monoxide; PM_{10} = particulate matter with a diameter no more than 10 microns; $PM_{2.5}$ = particulate matter with a diameter no more than 2.5 microns; SCAQMD = South Coast Air Quality Management District; LST = Localized Significance Threshold

Notes: Maximum on-site emissions are the highest emissions that would occur on the project site from on-site sources, such as heavy construction equipment and architectural coatings, and excludes off-site emissions from sources such as construction worker vehicle trips and haul truck trips.

Source: CalEEMod worksheets in Appendix B, see Tables 3.1 through 3.8 "Construction Emissions Details" emissions. The highest of Summer and Winter emissions results are shown for all emissions. The mitigated emissions account for project sustainability features and/or compliance with specific regulatory standards.

Toxic Air Contaminants

Toxic air contaminants (TACs) are a diverse group of air pollutants that may cause or contribute to an increase in deaths or serious illness, or that may pose a present or potential hazard to human health. TACs generally consist of four types: organic chemicals, such as benzene, dioxins, toluene, and perchloroethylene; inorganic chemicals such as chlorine and arsenic; fibers such as asbestos; and metals such as mercury, cadmium, chromium, and nickel. The primary TAC emitted by project implementation would be diesel particulate matter (DPM) generated by heavy-duty equipment and diesel-fueled delivery and haul trucks during construction activities. DPM was identified as a TAC by the CARB in 1998 and is primarily composed of PM_{10} and $PM_{2.5}$ exhaust emissions (CARB 2023).

Generation of DPM from construction projects typically occurs in a single area for a short period of time. Construction of the proposed project would occur over approximately four months. The dose to which the receptors are exposed is the primary factor used to determine health risk. Dose is a function of the concentration of a substance or substances in the environment and the extent of exposure that person has to the substance. Dose is positively correlated with time, meaning a longer exposure period would result in a higher exposure level for the maximally exposed individual. The risks estimated for a Maximally Exposed Individual are higher if a fixed exposure occurs over a longer period of time. According to the California Office of Environmental Health Hazard Assessment, health risk assessments, which determine the exposure of sensitive receptors to toxic emissions, should be based on a 30-year exposure period; however, such assessments should be limited to the period/duration of activities associated with the project. Thus, the duration of proposed construction activities (i.e., four months) is less than two percent of the total exposure period used for 30-year health risk calculations. Current models and methodologies for conducting health-risk assessments are associated with longer-term exposure periods of 9, 30, and 70 years, which do not correlate well with the temporary and highly variable nature of construction activities, resulting in difficulties in producing accurate estimates of health risk (Bay Area Air Quality Management District [BAAQMD] 2023).

Maximum DPM emissions would occur during grading and excavation. DPM emissions would be lower during other construction phases such as paving and site restoration because these phases would require less construction equipment. While the maximum DPM emissions associated with grading and excavation would only occur for approximately 33 days, or 35 percent of the overall construction period, these activities represent the worst-case condition for the total construction period. This would represent less than 0.4 percent of the total exposure period for health risk calculation. The project would install approximately 43 linear feet of pipeline per day,[4] which equates to construction along the boundary of sensitive receptors of approximately 29 construction days[5]. Therefore, project construction activities would not represent the type of long-term TAC emission source exposure that typically subjects sensitive receptors to significant health risk. Furthermore, construction activities would also be subject to and would comply with California regulations limiting the idling of heavy-duty construction equipment to no more than five minutes, which would further reduce nearby sensitive receptors' exposure to temporary and variable DPM emissions. Compliance with the standard construction measures required by the SCAQMD would also further reduce nearby sensitive receptors' exposure to temporary and variable DPM emissions. As such, project construction would not expose sensitive receptors to substantial TAC concentrations, and impacts would be less than significant.

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

Project construction could generate odors associated with heavy-duty equipment operation and earth-moving activities. Such odors would be temporary in nature and limited to the duration of construction in the vicinity of the project site. The project contractor(s) would also be required to adhere to SCAQMD Rule 402 (Nuisance), which prohibits discharge of air contaminants or any other material from a source that would cause nuisance to any considerable number of persons or the

[4] Total pipeline (3,500 linear feet) divide by construction days (82 days) = 42.7 linear feet per day
[5] Estimated pipeline length along the mobile homes east of Sand Canyon Road (1,237 linear feet) divided by 42.7 linear feet installation per construction day = 29 construction days.

public, including odor. The proposed project would not involve the operation of land uses typically associated with odor complaints such as agricultural uses, wastewater treatment plants, food-processing plants, and landfills. The proposed project would not create new sources of odor during operation. Therefore, the proposed project would not result in odors adversely affecting a substantial number of people. This impact would be less than significant.

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4 Biological Resources

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project:				
a. Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?	☐	■	☐	☐
b. Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?	☐	■	☐	☐
c. Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	☐	■	☐	☐
d. Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	☐	■	☐	☐
e. Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	■	☐	☐
f. Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	☐	☐	☐	■

The analysis of the proposed project's potential impacts to biological resources is informed by the Biological Resources Assessment prepared by Rincon Consultants, Inc. in February 2024 (Appendix C). The Biological Resources Assessment includes methodology for assessing potential impacts to biological resources and summarizes results of literature review, a field reconnaissance survey conducted August 1, 2023, and a jurisdictional waters delineation.

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

Special-Status Plant Species

Based on database and literature review, there are 38 special-status plant species that are known or have the potential to occur within the project site. Of these, three species have a moderate potential to occur (San Fernando Valley spineflower, Parry's spineflower, and slender-horned spineflower), and one has high potential to occur (slender mariposa lily). These species have potential to occur in the chaparral (i.e., chamise chaparral), coastal scrub (i.e., big sagebrush scrub, brittle bush scrub, California buckwheat scrub, California sagebrush – California buckwheat scrub, rubber rabbitbrush scrub, scale broom scrub, California sagebrush scrub, scale broom scrub, and thick-leaved yerba santa scrub), and/or annual grassland/herbaceous habitat (i.e., wild oats and annual brome grasslands and clustered tarweed fields) within the project site. Ground disturbance could directly result in the damage or removal of special-status plants if present at the project site. Indirect impacts could result from habitat modifications, such as by the introduction of invasive plants disseminated from construction equipment, contamination of soils, and habitat degradation due to accidental fuel spills during construction.

San Fernando Valley spineflower, Parry's spineflower, slender-horned spineflower, and slender mariposa lily were not observed during reconnaissance surveys, but they have a moderate to high potential to occur. Given the open cut trenching construction method proposed to install the majority of the new sewer alignment, as well as access road development and soil cement bank protection proposed, individuals of these species, if present, could be removed, damaged, or disturbed by construction of the proposed project. Therefore, this impact would be potentially significant, and mitigation is required.

Special-Status Wildlife Species

Based on database and literature review, 31 special-status wildlife species are known or have the potential to occur within the project site. Of the 31 wildlife species evaluated, 12 special-status wildlife species have low potential to occur, 8 have moderate potential to occur, 4 have high potential to occur, and 7 have no potential to occur. No special-status wildlife species were observed during the field survey. California legless lizard, coastal whiptail, California horned lark, and San Diego black-tailed jackrabbit have a high potential to occur. Crotch bumble bee (foraging), Santa Ana sucker, unarmored threespine stickleback, arroyo chub, arroyo toad, western spadefoot, coast horned lizard, and Cooper's hawk have a moderate potential to occur. Brief discussions of these species are included below.

Special Status Reptiles, Mammals, and Insects

Most of the special-status wildlife species that have the potential to occur within the project footprint are capable of escaping harm during project construction, while others are potentially vulnerable to direct impacts, including injury and mortality. Special-status species that could be directly impacted include potentially occurring land-dwelling animals, such as the California legless lizard, coastal whiptail, coast horned lizard, and San Diego black-tailed jackrabbit.

As Crotch bumble bee is a flying insect species, it would be capable of escaping harm during project construction while foraging. In addition, Crotch bumble does not have a moderate or high potential to nest at the project site because limited rodent dens were observed at the project site, and a large portion of the project site has been previously disturbed. Therefore, direct impacts to this species are not expected to occur as a result of the proposed project.

The project's use of open cut trenching to install the majority of the existing line along and above the northern bank of the Santa Clara River, as well as excavations associated with jack-and-bore pits, access road development, trail development and soil cement bank protection has the potential to directly impact California legless lizard, coastal whiptail, coast horned lizard, and San Diego black-tailed jackrabbit. Open trench excavation would consist of excavating the soil to approximately 6 to 11 feet deep, installing a new pipe or a section of new pipe, and then backfilling the trench. Development of the access road would require vegetation clearing, grading the roadway, paving the road, installing bridge footings, and placing pre-cast bridges over intermittent and ephemeral drainage features. Installation of soil cement bank protection along the northern bank of the Santa Clara River would require excavation, grading, and laying of soil cement to the desired grade. These project components have the potential to impact the aforementioned special-status species. Direct impacts could occur via direct strikes to individuals by construction equipment, or entrapment of special-status species in excavation trenches. In addition, indirect impacts could occur through vibrations and dust, which could alter behavioral patterns of land-dwelling special-status wildlife species and cause them to become exposed to predators. Therefore, the proposed project would cause potentially significant impacts to California legless lizard, coastal whiptail, coast horned lizard, and San Diego black-tailed jackrabbit, and mitigation is required.

Special-Status Fish and Amphibian Species

There are documented occurrences of unarmored threespine stickleback, Santa Ana sucker, and arroyo chub within a nine-quadrangle search area of the project site. These species have the potential to occur in the low-flow channel of the Santa Clara River. Installation of soil cement bank protection and the multi-purpose trail along the northern bank of the Santa Clara River is expected to occur within the low-flow channel of the Santa Clara River. Direct impacts to unarmored threespine stickleback, Santa Ana sucker, and arroyo chub could occur via direct strikes to individuals by construction equipment. In addition, indirect impacts to these species could occur if project construction occurs when surface and/or standing water is present within the Santa Clara River, and construction spoils or stormwater runoff is deposited into the Santa Clara River. This could result in effects such as increased turbidity, altered pH, and/or decreased dissolved oxygen levels, which could harm special-status fish species. Direct impacts to arroyo toad and western spadefoot could occur during project construction within suitable aquatic habitat (i.e., Santa Clara River channel) and upland habitat (i.e., scrub and grassland habitat) through direct strikes to individuals, should they occur. In addition, indirect impacts could occur through vibrations, noise, lighting, and dust, which could alter behavioral patterns of these individuals and lead to mortality. Therefore, impacts are potentially significant, and mitigation is required.

Special-Status and Nesting Birds

The nests of most native birds and raptors are state and federally protected. It is likely birds use the project site for nesting (generally from early February through late August) given the mix of native and non-native vegetation, as well as the number of bird species and individuals observed during the survey. Implementation of the proposed project could result in direct or indirect impacts to nesting birds, through the direct removal or trimming of shrubs and trees which provide suitable nesting habitat. Project-related noise, vibration, and increased lights can lead to the disturbance of nesting birds which may have a negative impact on the animals. Although temporary, such disturbance can lead to the abandonment of a bird nest.

The proposed project has potential to result in direct and indirect impacts to nesting birds, including California Department of Fish and Wildlife (CDFW)-designated Species of Special Concern (i.e., Cooper's hawk and California horned lark), and species protected under the Migratory Bird Treaty Act and California Fish and Game Code Section 3503, if they are nesting within the project site and/or immediate vicinity during construction activities. Construction would occur within scrub (California sagebrush – California buckwheat scrub, chamise chaparral, rubber rabbitbrush scrub, thick-leaved yerba santa scrub) and woodland (Fremont cottonwood forest and woodland and tamarisk thickets) vegetation communities that have the potential to support nesting birds and raptors, including Cooper's hawk. Direct impacts from construction activities include ground disturbance and removal of vegetation, which could potentially contain birds' nests. Indirect impacts include construction noise, lighting, and fugitive dust. These impacts could lead to individual mortality or harassment that might reduce nesting success. Therefore, the proposed project would have potentially significant impacts on special-status and nesting birds, and mitigation is required.

Mitigation Measures

BIO-1 General Best Management Practices

General requirements which shall be followed by construction personnel are listed below.

- The contractor shall clearly delineate the construction limits and prohibit any construction-related traffic outside those boundaries.
- Project-related vehicles shall observe a 10-mile per hour speed limit within the unpaved limits of construction.
- All open trenches or excavations shall be fenced and/or sloped to prevent entrapment of wildlife species.
- All food-related trash items such as wrappers, cans, bottles, and food scraps generated during proposed project construction shall be disposed of in closed containers only and removed daily from the project site.
- Project-related vehicles and equipment shall be inspected for weeds prior to entering the project site.
- Project-related materials (e.g., straw wattles) shall be sourced from weed-free materials.
- No deliberate feeding of wildlife shall be allowed.
- No pets shall be allowed on the project site.
- No firearms shall be allowed on the project site.
- If vehicle or equipment maintenance is necessary, it shall be performed in the designated staging areas.

- If construction lighting is used, it shall be shielded and directed downward to minimize the potential for glare or spillover onto adjacent properties and to reduce impacts on local wildlife.
- During construction, heavy equipment shall be operated in accordance with standard best management practices (BMP). All equipment used on-site shall be properly maintained to avoid leaks of oil, fuel, or residues. Provisions shall be in place to remediate any accidental spills.
- While encounters with special-status species are not anticipated, any worker who inadvertently injures or kills a special-status species or finds one dead, injured, or entrapped shall immediately report the incident to the construction foreman or biological monitor. The construction foreman or biological monitor shall immediately notify SCV Water. SCV Water shall follow up with written notification to United States Fish and Wildlife Service and/or California Department of Fish and Wildlife within five working days of the incident. All observations of special-status species shall be recorded on CNDDB field sheets and sent to the California Department of Fish and Wildlife by SCV Water or the biological monitor.

BIO-2 Worker Environmental Awareness Program

A lead biological monitor shall conduct a pre-project environmental education program for all personnel working at the site, which shall be focused on conditions and protocols necessary to avoid and minimize potential impacts to biological resources. Prior to initiation of construction activities (including staging and mobilization), all personnel associated with project construction shall attend a Worker Environmental Awareness Program (WEAP) training, conducted by a qualified biologist, to aid workers in recognizing special-status biological resources potentially occurring in the project area. This training shall include information about the special-status species with potential to occur in the project area. The specifics of this program shall include identification of special-status species and habitats, a description of the regulatory status and general ecological characteristics of special-status resources, and review of the limits of construction and measures required to avoid and minimize impacts to biological resources within the work area. A fact sheet conveying this information shall be prepared for distribution to all contractors, their employees, and other personnel involved with construction of the project. All employees working at the project site shall sign a form provided by the trainer documenting they have attended the WEAP and understand the information presented to them. The crew foreman shall be responsible for ensuring crew members adhere to the guidelines and restrictions designed to avoid impacts to special-status species.

BIO-3 Special Status Plant Surveys

To avoid impacts to special-status plants, surveys for special-status plants shall be completed prior to any vegetation removal, grubbing, or other construction activity within the project site. The surveys shall be floristic in nature, seasonally timed to coincide with the blooming period of the target species (slender mariposa lily, San Fernando Valley spineflower, Parry's spineflower, and slender-horned spineflower), and be conducted by a qualified biologist.

Special-status plant species identified on-site shall be mapped onto a site-specific aerial photograph and topographic map. Surveys shall be conducted in accordance with the most current protocols established by the California Department of Fish and Wildlife and United States Fish and Wildlife Service. A report of the survey results shall be submitted to SCV Water for review and approval.

BIO-4 Special-Status Plant Avoidance

If special-status plants are detected during special-status plant surveys, avoidance of the special-status plants shall occur where feasible and vegetation clearing within 50 feet of any identified rare plant will be conducted by hand, if practicable. Any rare plant occurrence shall have bright orange protective fencing installed at least 50 feet beyond its extent, or another distance as approved by a qualified biologist, to protect it from harm.

If avoidance is not feasible, SCV Water shall offset the proposed loss of individual plants at a minimum 1:1 ratio by on-site restoration (salvage, replanting, and propagation) detailed in Mitigation Measure BIO-5. The open scrub and grassland habitats in the project site are a suitable location for on-site restoration. Compensation for impacts to these species may also be accomplished by preservation of an on-site populations or off-site populations in the vicinity of the site at a minimum of a 1:1 ratio if present.

BIO-5 Special-Status Plant Mitigation and Monitoring Plan

If special-status plants are detected and would be impacted by project construction, a Special-status Plant Mitigation and Monitoring Plan that provides for the replacement of the species impacted by the project shall be developed by a qualified restoration specialist. The Special-status Plant Mitigation and Monitoring Plan would be prepared for both on-site and off-site mitigation.

The Special-status Plant Mitigation and Monitoring Plan shall specify the following:

- A summary of impacts;
- The location of the mitigation site;
- Methods for harvesting seeds or salvaging and transplanting individuals to be impacted;
- Measures for propagating plants or transferring living plants from the salvage site to the mitigation site;
- Site preparation procedures for the mitigation site;
- A schedule and action plan to maintain and monitor the mitigation area;
- Criteria and performance standards by which to measure the success of the mitigation, including replacement of impacted plants at a minimum 1:1 ratio;
- Measures to exclude unauthorized entry into the mitigation areas; and
- Contingency measures such as replanting or weeding if mitigation efforts are not successful.

The performance standards for the Special-Status Plant Mitigation and Monitoring Plan shall be at a minimum the following:

- Within five years after introducing the plants to the mitigation site, the number of established, reproductive plants shall equal the number lost to project construction, and
- Restoration will be considered successful after the success criteria have been met for a period of at least 2 years without any maintenance or remediation activities other than invasive species control.

The Special-status Plant Mitigation and Monitoring Plan shall be prepared prior to development of the project and implemented during project construction and shall continue thereafter for a five-year period. It can also be combined with the Habitat Revegetation, Restoration, and Monitoring Program described under Mitigation Measure BIO-10, below.

Annual reports discussing the implementation, monitoring, and management of the Special-status Plant Mitigation and Monitoring Plan shall be submitted to SCV Water. Five years after the start of the mitigation project, a final report shall be submitted, which shall at a minimum discuss the implementation, monitoring, and management of the Special-status Plant Mitigation and Monitoring Plan over the five-year period and indicate whether the Special-status Plant Mitigation and Monitoring Plan has been successful based on established performance standards. Should the success criteria be met before Year Five, the mitigation effort can be deemed complete.

BIO-6 Pre-Activity Survey

Prior to commencement of ground or vegetation disturbing activities at the project site, a qualified biologist shall conduct two surveys for special-status wildlife species. The first survey shall be conducted no more than fourteen (14) days prior to commencement of project activities and the second survey shall be conducted no more than three (3) days prior to the commencement of project activities. The survey shall incorporate methods to detect the special-status wildlife species that could potentially occur at the site. In addition, prior to commencement of project activities, a qualified biologist shall be retained to conduct focused surveys according to the USFWS Survey Protocol for the Arroyo Toad (USFWS 1999).

If special-status species are observed within the project site during pre-activity surveys, a qualified biologist shall draft a "Species Protection Plan" prior to the initiation of construction. At a minimum, the plan shall include avoidance and minimization measures for each observed species. These measures may include, but are not limited to:

- Species-specific Worker Environmental Awareness Program materials;
- Relocation methods including planned relocation areas for the protection of special-status species; and/or
- Reporting requirements.

To the extent feasible, special-status species shall be avoided. If avoidance is not feasible, the species shall be captured and transferred to an appropriate habitat and location on-site where it would not be harmed by project activities. The biologist shall hold the requisite permits for the capture and handling of the species, if applicable. Prior to commencement of the proposed activity, the methods and results of the surveys and, if a special-status species is found, the measures to be employed to avoid impacts to the species shall be presented in a letter report to SCV Water.

BIO-7 Qualified Biological Monitor

A qualified biological monitor familiar with special-status species with potential to occur in the project site shall be present during initial ground disturbance or vegetation removal activities. The biological monitor shall have the authority to temporarily stop work if one or more special-status amphibian, reptile, or mammals are observed; the monitor shall then relocate these individuals to suitable undisturbed habitat, outside the areas directly and indirectly affected by ground disturbance activities. The biologist shall hold the requisite incidental take permits or authorizations for the capture and handling of the species, if applicable.

The monitor shall recommend measures to ensure compliance with all avoidance and minimization measures, applicable permit conditions, and any conditions required by SCV Water. When the biological monitor is present on site, they shall be responsible for:

- Ensuring procedures for verifying compliance with environmental mitigation are followed;
- Lines of communication and reporting methods;
- Daily and weekly reporting of compliance;
- Construction crew WEAP training;
- Authority to stop work; and
- Action to be taken in the event of non-compliance.

BIO-8 Dry Season Construction

To eliminate the potential for impacts to the unarmored threespine stickleback, Santa Ana sucker, arroyo chub, arroyo toad, and western spadefoot and to minimize impacts to wildlife movement corridors, construction associated with soil cement bank protection and multi-purpose trail development along the northern bank of the Santa Clara River shall be restricted to the dry season. This period generally occurs from May 1 to September 15; however, construction can occur outside this window provided no flowing or ponded water associated with the Santa Clara River is present within 50 feet of any work area. In addition, surface elevations within Ephemeral Drainage 1 and Intermittent Drainage 1 shall be returned to preconstruction conditions prior to the end of the dry season.

BIO-9 Nesting Birds

Project-related activities shall occur outside of the bird breeding season (generally February 1 to August 31) to the extent practicable. If construction must occur within the bird breeding season, then no more than seven days prior to initiation of ground disturbance and/or vegetation removal, a nesting bird pre-construction survey shall be conducted by a qualified biologist within the disturbance footprint plus a 100-foot buffer (300-feet for raptors), where feasible. If the proposed project is phased or construction activities stop for more than one week, a subsequent pre-construction nesting bird survey shall be required prior to each phase of construction during the nesting season.

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

If nests are found, their locations shall be flagged. An appropriate avoidance buffer ranging in size from 25 to 50 feet for passerines and up to 300 feet for raptors, depending upon the species and the proposed work activity, shall be determined and demarcated by a qualified biologist with bright orange construction fencing or other suitable flagging. Active nests shall be monitored at a minimum of once per week until it has been determined the nest is no longer being used by either the young or adults. No ground or vegetation disturbance shall occur within this buffer until the qualified biologist confirms the breeding/nesting is completed and all the young have fledged. If project activities must occur within the buffer, they shall be conducted at the discretion of the qualified biologist. The nesting bird buffer zones may also be extended at the discretion of the qualified biologist based on field observations of nesting bird behavior. If no nesting birds are observed during pre-construction surveys, no further actions would be necessary.

Significance After Mitigation

SCV Water would implement Mitigation Measures BIO-1 through BIO-5 which would reduce potential impacts to special-status plant species to a less-than-significant level by requiring worker education program, pre-project botanical surveys, avoidance measures, and compensatory mitigation requirements, if applicable.

Potential impacts to special-status reptiles, mammals, and insects would be reduced to a less-than-significant level with implementation of Mitigation Measures BIO-1, BIO-6, and BIO-7, which require sloping or fencing of trenches to prevent wildlife entrapment, pre-construction surveys for special-status wildlife species, and construction monitoring. Additionally, potential impacts to federally- and state-listed wildlife species, if present, would require incidental take authorizations from the USFWS and CDFW.

Potential impacts to special-status fish and amphibian species would be reduced to a less-than-significant level with implementation of Mitigation Measures BIO-1, BIO-6, BIO-7, and BIO-8. These mitigation measures require implementation of construction BMPs, pre-construction surveys for western spadefoot and arroyo toad, as well as construction monitoring.

SCV Water would implement Mitigation Measures BIO-6, BIO-7, and BIO-9. Potential impacts to special-status and nesting birds would be reduced to a less-than-significant level with implementation of Mitigation Measures BIO-6, BIO-7, and BIO-9. These mitigation measures would identify and protect any special-status bird species (i.e., Cooper's hawk and California horned lark) and require a pre-construction nesting bird survey and protective buffers if nesting birds are found.

LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED

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

Three CDFW-designated sensitive plant communities are located within the area analyzed in the Biological Resources Assessment: clustered tarweed fields, Fremont cottonwood forest and woodland, and scale broom scrub. Of these, temporary and permanent impacts to sensitive plant communities would be limited to the Fremont cottonwood forest and woodland community (0.18-acre of temporary impacts and 0.07-acre of permanent impacts). Direct impacts to Fremont cottonwood forest and woodland include vegetation removal within the project footprint in order to install the sewer pipeline and access road. Indirect impacts could also occur through introduction of invasive plant species, which could negatively impact sensitive plant communities. Mitigation Measure BIO-1 includes the use of weed-free construction materials (e.g., straw wattles) and inspecting construction-related vehicles and equipment for weeds prior to entering the project site. This would reduce the potential for indirect impacts to sensitive plant communities to a less-than-significant level. However, direct impacts to Fremont cottonwood forest and woodland would still occur, even with implementation of Mitigation Measure BIO-1. Therefore, impacts would be potentially significant, and additional mitigation is required.

Mitigation Measures

BIO-10 Habitat Revegetation, Restoration, and Monitoring Program

Impacts to sensitive plant communities shall be avoided to the greatest extent feasible. If avoidance is not feasible, mitigation for unavoidable impacts to sensitive plant communities can be accomplished either through on-site restoration, off-site restoration, or purchase of credits through an approved Mitigation Bank. Compensatory mitigation for unavoidable impacts to sensitive plant communities shall be accomplished at a minimum ratio of 1:1. If on-site or off-site restoration occurs, a Habitat Revegetation, Restoration, and Monitoring Program shall be prepared and submitted for approval to SCV Water prior to initiating impacts. At minimum, the Habitat Revegetation, Restoration, and Monitoring Program shall include the following:

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

BIO-11 Jurisdictional Habitat Best Management Practices

The following best management practices for construction within jurisdictional habitat shall be followed by construction personnel:

- Materials shall be stored on impervious surfaces or plastic ground covers to prevent any spills or leakage and shall be at least 50 feet from drainage features. Construction materials and spoils shall be protected from stormwater runoff using temporary perimeter sediment barriers such as berms, silt fences, fiber rolls, covers, sand/gravel bags, and straw bale barriers, as appropriate.
- All vehicles and equipment shall be in good working condition and free of leaks. The contractor shall prevent oil, petroleum products, or any other pollutants from contaminating the soil or entering a watercourse (dry or otherwise). When vehicles or equipment are stationary, mats or drip pans shall be placed below vehicles to contain fluid leaks.
- All re-fueling, cleaning, and maintenance of equipment will occur at least 50 feet from potentially jurisdictional waters.
- Adequate spill prevention and response equipment shall be maintained on-site and readily available to implement to ensure minimal impacts to the aquatic and marine environments.
- Compensatory mitigation for permanent impacts to the Santa Clara River and the two unnamed drainages (Ephemeral Drainage 1 and Intermittent Drainage 1) can be accomplished either through purchase of credits through an approved Mitigation Bank or through SCV Water sponsored mitigation (e.g., on-site restoration). Compensatory mitigation shall be determined and approved by CDFW, USACE and RWQCB prior to impacting state- or federally-regulated waters. If on-site restoration would occur, it would be accomplished through implementation of a Habitat Revegetation, Restoration, and Monitoring Program as contained in Mitigation Measure BIO-10.

Significance After Mitigation

SCV Water would implement Mitigation Measure BIO-11. Implementation of Mitigation Measures BIO-10 and BIO-11 would require compensation for sensitive plant communities and riparian habitat, as well as require additional construction measures to minimize the introduction of pollutants to sensitive plant communities and riparian habitat. With implementation of Mitigation Measures BIO-1, BIO-10, and BIO-11, impacts to sensitive natural communities and riparian habitat would be reduced to a less-than-significant level.

LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED

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

The Santa Clara River and two unnamed drainages are potentially subject to the jurisdiction of United States Army Corps of Engineers, Los Angeles RWQCB, and/or the CDFW. Project construction would involve the installation of a new sewer line along the northern bank of the Santa Clara River and would include soil cement bank protection for the proposed sewer line where the Santa Clara River bank is unstable and subject to scouring. The project also includes the development of an access road across the unnamed drainages. Two pre-cast arch design bridges and bridge footings would be installed where the access road crosses these drainage features. Table 7 and Table 8 show the acreages of temporary and permanent impacts, respectively, the proposed project would have on these potentially jurisdictional features.

Table 7 Temporary Impacts to Potentially Jurisdictional Areas

	USACE Jurisdiction		RWQCB Jurisdiction		CDFW Jurisdiction
Feature	Non-Wetland Waters of the U.S. (acres/ linear feet)	Wetland Waters of the U.S. (acres)	Non-Wetland Waters of the State (acres/ linear feet)	Wetland Waters of the State (acres)	Streambed and Associated Riparian Habitat (acres/ linear feet)
Santa Clara River	0/0	0	0/0	0	0.167/949
Intermittent Drainage 1	0/0	0.021	0/0	0.021	0.143/474
Ephemeral Drainage 1	0/0	0	<0.01/22	0	0.044/201
Total	**0/0**	**0.021**	**0.007/22**	**0.021**	**0.354/1,624**

Table 8 Permanent Impacts to Potentially Jurisdictional Areas

	USACE Jurisdiction		RWQCB Jurisdiction		CDFW Jurisdiction
Feature	Non-Wetland Waters of the U.S. (acres/ linear feet)	Wetland Waters of the U.S. (acres)	Non-Wetland Waters of the State (acres/ linear feet)	Wetland Waters of the State (acres)	Streambed and Associated Riparian Habitat (acres/ linear feet)
Santa Clara River	0.16/625	0	0.16/625	0	0.71/1,974
Intermittent Drainage 1	0/0	0	0/0	0	0.05/114
Ephemeral Drainage 1	0/0	0	<0.01/9	0	0.03/352
Total	**0.16/625**	**0**	**0.16/634**	**0**	**0.79/2,440**

Prior to ground disturbance activities that could impact these features, SCV Water would consult with the appropriate regulatory agencies (United States Army Corps of Engineers, Los Angeles RWQCB, and/or CDFW) anticipated to assert jurisdiction over the features. The project is anticipated to require a Lake and Streambed Alteration Agreement from the CDFW, a Water Quality Certification under Clean Water Act Section 401 from the Los Angeles RWQCB, and verification from the United States Army Corps of Engineers under Nationwide Permit 58. Based on such consultation, any required permits must be obtained prior to disturbance of jurisdictional resources. In addition, implementation of Mitigation Measures BIO-10 and BIO-11 would require SCV Water to provide compensatory mitigation for wetland habitat, as well as require additional construction measures to minimize the introduction of pollutants to wetlands. With implementation of Mitigation Measures BIO-10 and BIO-11, potential impacts to state and federally protected wetlands would be reduced to a less-than-significant level.

LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED

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

The Santa Clara River provides a valuable movement and migration corridor for many types of wildlife, including terrestrial, semi-aquatic, and aquatic species. Construction activities would not occur within the bed of the Santa Clara River, as project components only occur along the northern bank (i.e., soil cement bank protection) or above the northern bank (i.e., sewer line installation, access road development). Additionally, construction activities would be short-term and would only occur during the daytime. Project construction would not result in a decrease in the function of the corridor for wildlife movement, as the optimal path for wildlife movement (i.e., Santa Clara River) would remain intact during implementation of the project. Migrating wildlife would have the ability traverse around the work area (i.e., to the south) during construction and continue migrating through the Santa Clara River channel. However, construction could introduce temporary lighting to the area and include activities which may result in temporary disturbances to fish in the Santa Clara River. Implementation of Mitigation Measures BIO-1 and BIO-8 would reduce these impacts to a less-than-significant level by implementing measures to prevent wildlife entrapment (e.g., sloping trenches), shielding/directing light downward, and requiring construction along the northern bank of the Santa Clara River bed to occur only when the river is dry.

Project operation would not increase activities that could impact wildlife movement beyond existing conditions. The sewer pipeline would be located below ground and would not 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. Impacts would be less than significant.

LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED

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

City of Santa Clarita General Plan and Vista Canyon Specific Plan

The objectives and policies of the City of Santa Clarita General Plan and Vista Canyon Specific Plan focus on conservation of existing natural areas; restoration of damaged natural vegetation; protection of wetlands, oak trees, and other indigenous woodlands and endangered or threatened species and habitat; and protection of biological resources in significant ecological areas and significant wildlife corridors. With implementation of Mitigation Measures BIO-1 through BIO-11, impacts to biological resources would be less than significant and the project would not conflict with policies protecting biological resources in the City of Santa Clarita General Plan and Vista Canyon Specific Plan. Impacts would therefore be less than significant with mitigation incorporated.

City of Santa Clarita Oak Tree Preservation Ordinance and Parkway Trees Ordinance

One coast live oak tree was documented to the northeast of the easternmost bore pit location. This tree, including its protected zone, does not occur within any proposed work area, and would not be impacted by the project. Additionally, the majority of the project site occurs within private property where the City's Parkway Trees Ordinance does not apply. A small component of the project site along an unpaved access road in the western portion of the project site occurs within public property, and no trees protected by the City's Parkway Trees Ordinance occur in this area. As such, the project would not conflict with the City's Oak Tree Preservation Ordinance and Parkway Trees Ordinance.

Significant Ecological Areas

Project construction would potentially affect the Santa Clara River Significant Ecological Area and its biological resources due to construction activity. The project would not be subject to the City's building and zoning ordinances (Santa Clarita Municipal Code Titles 17 and 18) pursuant Government Code Section 53091, which include Santa Clarita Municipal Code Section 17.38.080. Section 17.38.080 requires a conformance review for development within a Significant Ecological Area. Although the proposed project would be exempt from this requirement, SCV Water would voluntarily comply with the City's code through the implementation of measures to reduce impacts (refer to Mitigation Measures BIO-1 through BIO-11) such that the project would be compliant with the City's code. As such, the proposed project would not result in a substantial impact to the Santa Clara River Significant Ecological Area and would not conflict with the City of Santa Clarita's intent of protecting the Santa Clara River Significant Ecological Area.

LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED

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

The project site is not within an area subject to a Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan. No impact would occur.

NO IMPACT

5 Cultural Resources

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project:				
g. Cause a substantial adverse change in the significance of a historical resource pursuant to §15064.5?	☐	☐	☐	■
h. Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?	☐	■	☐	☐
i. Disturb any human remains, including those interred outside of formal cemeteries?	☐	☐	■	☐

Background

This section provides an analysis of the project's impacts on cultural resources, including historical and archaeological resources, as well as human remains. CEQA requires a lead agency to determine whether a project may have a significant effect on historical resources (California Public Resources Code [PRC] Section 21084.1) and tribal cultural resources (PRC Section 21074 [a][1][A-B]). A historical resource is a resource listed in, or determined to be eligible for listing in, the California Register of Historical Resources (CRHR); a resource included in a local register of historical resources; or any object, building, structure, site, area, place, record, or manuscript a lead agency determines to be historically significant (*CEQA Guidelines* Section 15064.5[a][1-3]).

A resource shall be considered historically significant if it:

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

In addition, if it can be demonstrated that a project would cause damage to a unique archaeological resource, the lead agency may require reasonable efforts be made to permit any or all of these resources to be preserved in place or left in an undisturbed state. PRC Section 21083.2(g) defines a unique archaeological resource as an archaeological artifact, object, or site about which it can be clearly demonstrated that, without merely adding to the current body of knowledge, there is a high probability that it:

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

2. Has a special and particular quality, such as being the oldest of its type or the best available example of its type; or
3. Is directly associated with a scientifically recognized important prehistoric or historic event or person.

To the extent that resources cannot be left undisturbed, mitigation measures are required (PRC Section 21083.2[a-b]).

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

Methodology and Results of Cultural Resources Assessment

The analysis of the proposed project's potential impacts to cultural resources is informed by the Cultural Resources Technical Report prepared by Rincon Consultants, Inc. in February 2024 (Appendix D). The Cultural Resources Technical Report summarizes the methods and results of a California Historical Resources Information System (CHRIS) records search through the South Central Coastal Information Center (SCCIC), a Sacred Lands File (SLF) search through the California Native American Heritage Commission (NAHC), a geoarchaeological review, a pedestrian field survey, and Extended Phase I (XPI) excavations.

The SCCIC records search was performed to identify previously recorded cultural resources as well as previously conducted cultural resources studies within the project site and a 0.5-mile radius. Rincon also reviewed the National Register of Historic Places (NRHP), CRHR, the California Historical Landmarks list, and the Built Environment Resources Directory, as well as its predecessor the California State Historic Property Data File, and Archaeological Determination of Eligibility list. The SCCIC search identified six previously recorded cultural resources within the 0.5-mile radius surrounding the project site. Of these six cultural resources, two resources (P-19-001077 and P-19-004355) are located within the project site. Resource P-19-001077 is a multicomponent archaeological resource containing both historic-period (structural remnants) and prehistoric (artifact scatter) components. Resource P-19-004355 is a multicomponent resource consisting of a prehistoric archaeological site containing surficial and subsurface elements, and a historic-period cemetery. Both resources were previously recommended as CRHR-eligible.

Rincon contacted the NAHC on January 13, 2023, to request a search of the SLF. The NAHC responded on January 27, 2023, stating that the results of the SLF search were positive. The NAHC provided a list of 19 Native American contacts who may have knowledge of cultural resources of Native American origin within the area of potential effects. Potential project impacts to tribal cultural resources are discussed in Environmental Checklist Section 18, *Tribal Cultural Resources.*

Resources P-19-001077 and P-19-004355 were intensively inspected as part of the pedestrian survey. Historic-period or modern elements were documented within P-19-001077 including two milled lumber poles, a concrete slab, and concrete debris. No prehistoric artifacts or features were noted within the locus. A historic-period cemetery associated with P-19-004355 was inspected and found to contain 18 headstones, most of which were comprised of simple concrete markers.

Artifacts documented associated with the site's prehistoric component included one slab metate fragment, one mano fragment, and one chert flake, all located within the resource's southeastern portion.

The XPI excavations conducted within P-19-001077 and P-19-004355 were conducted to determine if subsurface archaeological deposits associated with the resources are located within portions of the project site where ground disturbing activities would occur. As a result of the XPI excavations, no subsurface deposits were identified within the portions of the two resources that would be subject to project-related ground disturbance.

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

A historic-period cemetery on Mitchell Hill is present approximately 115 feet north of the project site. The cemetery has not been previously evaluated for inclusion in the CRHR and, therefore, has the potential to quality as a historical resource pursuant to *CEQA Guidelines* Section 15064.5. Although the cemetery is in proximity to the project site, project ground disturbance would not intrude into the cemetery or its immediate vicinity. Operation of the proposed project would not require disturbance of the cemetery or other historical resources. Therefore, the proposed project would not result in a substantial adverse change in the significance of a historical resource. No impact would occur.

NO IMPACT

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

As noted above, two CRHR-eligible cultural resources, P-19-001077 and -004355, are present within the project site. As a result of the XPI excavations, both CRHR-eligible cultural resources were found to lack subsurface deposits within the portions of the resources that would be subject to project-related ground disturbance. Although no subsurface archaeological deposits were identified, P-19-004355 is known to have CRHR-eligible archaeological deposits outside of the project footprint, and the western locus of P-19-001077 may also have intact CRHR-eligible archaeological deposits outside of the project footprint. Although project implementation would not impact known subsurface archaeological deposits, inadvertent discoveries of subsurface archaeological deposits during construction remain a possibility. Therefore, this impact would be potentially significant, and mitigation is required.

Mitigation Measures

CUL-1 Preconstruction Cultural Resources Sensitivity Training

Prior to the start of project-related ground disturbing activities, a cultural resources specialist working under the supervision of a qualified archaeologist who meets the Secretary of the Interior's Professional Qualification Standards for archaeology (NPS 1983) shall conduct cultural resources sensitivity training for all construction personnel. Construction personnel shall be informed of the types of archaeological resources that may be encountered, and of the proper procedures to be enacted in the event of an unanticipated discovery of archaeological resources or human remains. SCV Water shall ensure that construction personnel attend the training and retain documentation demonstrating attendance.

CUL-2 Cultural Resources Monitoring

An archaeological monitor working under the direct supervision of a qualified archaeologist and a Native American monitor shall observe project-related ground-disturbing activities during construction. The qualified archaeologist, in coordination with SCV Water, may reduce or discontinue monitoring if it is determined that the possibility of encountering buried archaeological deposits is low based on observations of soil stratigraphy or other factors. Archaeological monitoring shall be conducted by an archaeologist familiar with the types of archaeological resources that could be encountered within the project site. The Native American monitor shall be selected from the Native American groups identified by the Native American Heritage Commission as having affiliation with the project site. The archaeological monitor and Native American monitor shall be empowered to halt or redirect ground-disturbing activities away from the vicinity of an unanticipated discovery until the qualified archaeologist has evaluated the discovery and determined appropriate treatment. The archaeological monitor shall keep daily logs detailing the types of activities and soils observed, and any discoveries. After monitoring has been completed, the qualified archaeologist shall prepare a monitoring report that details the results of monitoring. The report shall be submitted to SCV Water and any Native American groups who request a copy. A copy of the final report will be filed at the South Central Coastal Information Center.

CUL-3 Unanticipated Discovery of Cultural Resources

In the event archaeological resources are unexpectedly encountered during ground-disturbing activities, work within 50 feet of the find shall halt and the qualified archaeologist shall be contacted immediately to evaluate the resource. If the resource is determined by the qualified archaeologist to be prehistoric, then a Native American representative shall also be contacted to participate in the evaluation of the resource. If the qualified archaeologist and/or Native American representative determines it to be appropriate, archaeological testing for California Register of Historical Resources eligibility shall be completed. If the resource proves to be eligible for the California Register of Historical Resources and significant impacts to the resource cannot be avoided via project redesign, the qualified archaeologist shall prepare a data recovery plan tailored to the physical nature and characteristics of the resource, per the requirements of the California Code of Regulations (CCR) Guidelines Section 15126.4(b)(3)(C). The data recovery plan shall identify data recovery excavation methods, measurable objectives, and data thresholds to reduce any significant impacts to cultural resources related to the resource. Pursuant to the data recovery plan, a qualified archaeologist and Native American representative, as appropriate, shall recover and document the scientifically consequential information that justifies the resource's significance. SCV Water shall review and approve the treatment plan and archaeological testing as appropriate, and the resulting documentation shall be submitted to the regional repository of the California Historical Resources Information System, per CCR Guidelines Section 15126.4(b)(3)(C).

Significance After Mitigation

Implementation of Mitigation Measures CUL-1 through CUL-3 require cultural resource training to be provided to construction personnel, ongoing construction monitoring by an archaeologist and Native American monitor and sets forth a procedure in the event archaeological resources are unexpectedly encountered during ground-disturbing activities. With implementation of Mitigation Measures CUL-1 through CUL-3, the proposed project's potential impacts to archaeological resources would be reduced to a less-than-significant level.

LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED

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

A historic-period cemetery on Mitchell Hill is present approximately 115 feet north of the project site and, therefore, human remains are known to be adjacent to the project site. If human remains are encountered during project-related ground disturbing activities, 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. In the event of an unanticipated discovery of human remains, the County Coroner must be notified immediately. If the human remains are determined to be of Native American origin, the Coroner will notify the Native American Heritage Commission, which will determine and notify a Most Likely Descendant. The Most Likely Descendant has 48 hours from being granted site access to make recommendations for the disposition of the remains. If the Most Likely Descendant does not make recommendations within 48 hours, the landowner shall reinter the remains in an area of the property secure from subsequent disturbance. With adherence to California Health and Safety Code Section 7050.5 and PRC Section 5097.98, the proposed project would have a less than significant impact related to the disturbance of human remains.

LESS THAN SIGNIFICANT IMPACT

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6 Energy

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project:				
a. Result in a potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?	☐	☐	☐	■
b. Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	☐	☐	☐	■

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

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

Energy would be consumed during construction of the proposed project in the form of petroleum-based fuels used to power off-road construction vehicles and equipment on the project site, construction worker travel to and from the project site, and vehicles used to transport materials to and from the site. Energy use during construction would be temporary in nature, and construction equipment used would be typical of similar-sized construction projects in the region. In addition, construction contractors would be required to comply with the provisions of CCR Title 13 Sections 2449 and 2485, which prohibit diesel-fueled commercial motor vehicles and off-road diesel vehicles from idling for more than five minutes and would minimize unnecessary fuel consumption. Construction equipment would be subject to the USEPA Construction Equipment Fuel Efficiency Standard, which includes the use of energy efficient construction equipment. These practices would result in efficient use of energy necessary to construct the proposed project. The proposed project would not require new operations and maintenance activities or electricity consumption beyond existing operations. Therefore, operation of the proposed project would not consume additional energy beyond existing conditions. No impact would occur.

NO IMPACT

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7 Geology and Soils

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project:				
a. Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:				
1. Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault?	☐	☐	☐	■
2. Strong seismic ground shaking?	☐	☐	■	☐
3. Seismic-related ground failure, including liquefaction?	☐	☐	■	☐
4. Landslides?	☐	☐	■	☐
b. Result in substantial soil erosion or the loss of topsoil?	☐	☐	■	☐
c. Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse?	☐	☐	■	☐
d. Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?	☐	☐	☐	■
e. Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?	☐	☐	☐	■
f. Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	■	☐	☐

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

The project site does not partially or fully intersect an Alquist-Priolo Earthquake Fault Zone (DOC 2021). Therefore, the proposed project would not result in the risk of loss, injury, or death involving fault rupture of an Alquist-Priolo Earthquake Fault. No impact would occur.

NO IMPACT

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

The project site could be subject to seismic ground shaking during an earthquake triggered by nearby fault zones, including the San Gabriel Fault Zone located approximately 4.2 miles west of the project site and the Sierra Madre Fault Zone located approximately 6.0 miles south of the project site (DOC 2021). The proposed project involves installation of an underground pipeline, access road, bridges, and would not involve habitable structures. Design and construction of the proposed project would consider the seismic environment and would comply with applicable seismic design standards. A large seismic event, such as a fault rupture, seismic shaking, or ground failure could result in breakage of the proposed pipeline, failure of joints, and/or underground leakage from the pipeline. In the event an earthquake compromised project components during operation, SCV Water would temporarily shut off the facility and conduct emergency repairs as soon as possible. Therefore, while the proposed project would be located in a seismically active area, the proposed project would not directly or indirectly cause potential substantial adverse effects including the risk of loss, injury, or death involving strong seismic ground shaking. Therefore, this impact would be less than significant.

LESS THAN SIGNIFICANT IMPACT

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

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

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

The project site is located in a liquefaction hazard zone, as delineated by the DOC (DOC 2021). The project site is not within a landslide hazard area delineated by the DOC (DOC 2021). Proposed project activities would not create substantial gradients or otherwise increase the risk of landslide at the project site. However, because the project would involve replacement of an existing sewer pipeline, the project would not introduce new risks associated with lateral spreading, subsidence, liquefaction, or collapse beyond existing conditions. As discussed in criterion (a.2) the proposed pipeline and bridges would be constructed in accordance with applicable seismic design standards. In the event of project components are compromised during operation due to lateral spreading, subsidence, liquefaction, or collapse, SCV Water would temporarily shut off the facility and conduct emergency repairs as soon as possible. This would ensure the proposed project would not cause

impacts related to soil stability or increase the potential for on- or off-site lateral spreading, subsidence, liquefaction, or collapse. Therefore, impacts would be less than significant.

LESS THAN SIGNIFICANT IMPACT

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

Excavation and other ground-disturbing activities associated with construction of the proposed project have the potential to result in substantial soil erosion or the loss of topsoil. Construction activities would be subject to the National Pollutant Discharge Elimination System (NPDES) Construction General Permit, which requires the development of a Stormwater Pollution Prevention Plan (SWPPP). The SWPPP includes project-specific BMPs to control erosion, sediment release, and otherwise reduce the potential for discharge of pollutants from construction into stormwater. Typical BMPs would include, but would not be limited to, use of silt fences, fiber rolls, stabilized construction entrances/exists, storm drain inlet protection, wind erosion control, stockpile management, and materials storage and vehicle and equipment cleaning, fueling, and maintenance procedures that minimize the discharge of spills and leaks. Erosion from construction activities would thus be controlled through implementation of BMPs outlined in the SWPPP required by the NPDES Construction General Permit and by SCV Water's standard construction practices. Therefore, construction of the proposed project would not result in substantial soil erosion or the loss of topsoil.

The proposed project would not require new operations or maintenance activities beyond existing conditions. Therefore, operation of the proposed project would not result in substantial soil erosion or the loss of topsoil. Furthermore, the proposed project would include bank protection consisting of an 8-foot-wide soil cement section which would be vegetated with native plant species. This bank protection would reduce the potential erodibility of the northern bank of the Santa Clara River during operation. Overall, this impact would be less than significant.

LESS THAN SIGNIFICANT IMPACT

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

Expansive soils are soils with high shrink-swell potential. The shrink-swell potential is low if the soil has a linear extensibility of less than three percent (United States Department of Agriculture [USDA] 2017). The project site is underlain by a mix of Cortina sandy loam, Hanford sandy loam, Ojai loam, sandy alluvial land, and riverwash (USDA 2024). These soils all have a linear extensibility rating of 1.5 percent, indicating a low shrink-swell potential (USDA 2024). In addition, the project does not include construction of habitable structures and would be unmanned during operation. Therefore, the proposed project would not expose people to risks related to expansive soils. The proposed project would not be located on expansive soils and would not introduce risk to life or property as a result of expansive soils. No impact would occur.

NO IMPACT

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

The proposed project involves the replacement of a sewer line. The proposed project does not include the use of septic tanks or alternative wastewater disposal systems. No impact would occur.

NO IMPACT

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

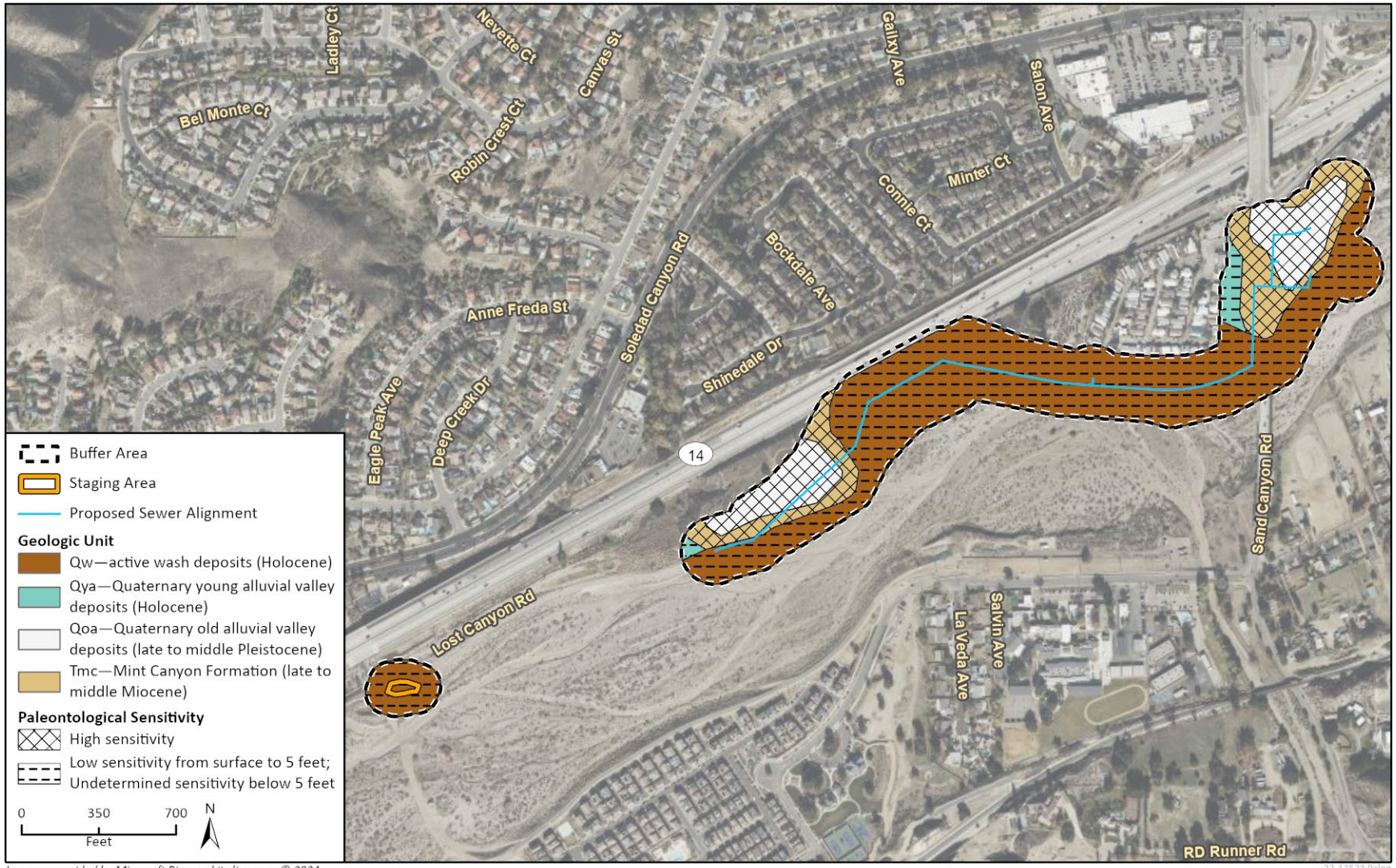
Paleontological resources, or fossils, are the evidence of once-living organisms preserved in the rock record. They include both the fossilized remains of ancient plants and animals and the traces thereof (e.g., trackways, imprints, burrows, etc.). Paleontological resources are not found in "soil" but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

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

The project site is situated in the Transverse Ranges geomorphic province, one of the eleven geomorphic provinces in California (California Geological Survey 2002). The Transverse Ranges extend approximately 275 miles west-east from Point Arguello in Santa Barbara County, east to the San Bernardino Mountains, and south to the Anacapa-Santa Monica-Hollywood-Raymond-Cucamonga fault zone (Yerkes and Campbell 2005). Specifically, the project site is located in Soledad Canyon, a long, narrow valley that contains the upper Santa Clara River. Soledad Canyon is bordered by the San Gabriel Mountains to the south and Sierra Pelona Mountains to the north, which are both underlain primarily by Mesozoic crystalline basement rocks but also contain some Cenozoic volcanic and sedimentary strata.

The project site is located in the Mint Canyon, California, United States Geological Survey 7.5-minute topographic quadrangle. The geology of the region surrounding the project site was mapped by Bedrossian and Roffers (2012) and Campbell et al. (2016), who identified four geologic units within the project site: active wash deposits, Quaternary young alluvial valley deposits, Quaternary old alluvium, and Mint Canyon Formation (Figure 3).

Figure 3 Geologic Map and Paleontological Sensitivity of Project Site



Imagery provided by Microsoft Bing and its licensors © 2024.
Geology information provided by Bedrossian & Roffers 2012; Campbell et al. 2016

Active wash deposits underlie the central part of the project site (Figure 3). Active wash deposits consist of unconsolidated gravel and sand that have been deposited by active or recently active rivers or streams, in this case the Santa Clara River (Bedrossian and Roffers 2012; Campbell et al. 2016). Since active wash deposits are actively undergoing deposition, they are generally considered too young (i.e., less than 5,000 years old) to preserve paleontological resources (SVP 2010). Therefore, active wash deposits have low paleontological sensitivity.

Quaternary young alluvial valley deposits do not directly underlie the proposed sewer alignment (Figure 3). However, they may still be impacted by project construction due to slight mapping inaccuracies or by underlying active wash deposits. Quaternary young alluvial valley deposits consist of unconsolidated to slightly consolidated clay, silt, sand, and gravel, deposited in small valleys and on larger floodplains (Bedrossian and Roffers 2012; Campbell et al. 2016). Quaternary young alluvial valley deposits are Holocene in age and generally considered too young (i.e., less than 5,000 years old) to preserve paleontological resources (SVP 2010). Therefore, Quaternary young alluvial valley deposits have low paleontological sensitivity.

Quaternary old alluvial valley deposits underlie small portions of the eastern and western ends of the project site (Figure 3). Quaternary old alluvial valley deposits consist of slightly to moderately consolidated clay, silt, sand, and gravel, deposited in small valleys and on larger floodplains (Bedrossian and Roffers 2012; Campbell et al. 2016). Quaternary old alluvial valley deposits are late to middle Pleistocene in age. Pleistocene-aged alluvial sediments are known to produce scientifically significant paleontological resources in Soledad Canyon and Los Angeles County, including taxa such as mammoth (*Mammuthus*), mastodon (*Mammut*), horse (*Equus*), other mammals, birds, reptiles, and invertebrates (Jefferson 2010; Paleobiology Database [PBDB] 2024; University of California Museum of Paleontology [UCMP] 2024). Given the fossil-producing history of similar sediments in the region, Quaternary old alluvial valley deposits have high paleontological sensitivity.

The Mint Canyon Formation underlies small portions of the eastern and western ends of the project site (Figure 3). The Mint Canyon Formation is late to middle Miocene in age and is represented by several lithologically distinct facies (Campbell et al. 2016). The project site is underlain by lacustrine deltaic facies, which consist of cross-bedded, fine- to coarse-grained sandstone with interbedded gravelly sandstone, gray or brown siltstone, and tuffaceous beds. The Mint Canyon Formation as a whole, and these facies in particular, are known to preserve scientifically significant fossils including horse (*Hipparion*), pronghorn (*Merycodus*), camel (Camelidae), dog (Canidae), rhinoceros (*Rhinocerotidae*), and invertebrate fossils (Campbell et al. 2016; PBDB 2024; UCMP 2024). Given this fossil-producing history, the Mint Canyon Formation has high paleontological sensitivity.

Holocene-aged geologic units, such as active wash deposits and Quaternary young alluvial valley deposits, may be underlain by older, potentially higher-sensitivity geologic units in the subsurface. Based on the nearby exposures of Quaternary old alluvial valley deposits and Mint Canyon Formation (Figure 3), it is likely that one or both of these high-sensitivity geologic units underlie the Holocene-aged sediments within the project site, possibly at depths as shallow as 5 feet. However, this 5-foot transition depth is an estimate, so the active wash deposits and Quaternary young alluvial valley deposits are assigned low sensitivity from the surface to 5 feet below the surface and undetermined sensitivity below the surface.

Ground-disturbing activities within previously undisturbed sediments with high paleontological sensitivity could result in significant impacts to paleontological resources. Impacts would be significant if construction activities result in the destruction, damage, or loss of scientifically important paleontological resources and associated stratigraphic and paleontological data. Ground-disturbing activities during construction of the proposed project would include open-cut trenching

and excavation of jack-and-bore pits. These excavations are anticipated to total 5,800 cubic yards and reach 6 to 11 feet below the surface. Therefore, these excavations have the potential to damage paleontological resources both in areas mapped as high-sensitivity geologic units (Quaternary old alluvial valley deposits and Mint Canyon Formation) and Holocene-aged geologic units (i.e., active wash deposits and Quaternary young alluvial valley deposits), if fossils are present within the sediments underlying the project site. Accordingly, the proposed project's impacts to paleontological resources would be potentially significant and mitigation is required.

Mitigation Measures

GEO-1 Paleontological Resources Monitoring and Mitigation

Prior to the start of construction, the following measures shall be implemented:

- **Qualified Professional Paleontologist.** Prior to excavation, SCV Water shall retain a Qualified Professional Paleontologist, as defined by the Society of Vertebrate Paleontology (SVP 2010). The Qualified Professional Paleontologist shall direct all mitigation measures related to paleontological resources.
- **Paleontological Worker Environmental Awareness Program.** Prior to excavation, the Qualified Professional Paleontologist or their designee shall conduct a paleontological Worker Environmental Awareness Program (WEAP) training for construction personnel regarding the appearance of fossils and procedures for notifying paleontological staff should fossils be discovered by construction personnel.
- **Paleontological Monitoring.** Full-time paleontological monitoring shall occur during excavations occurring in areas mapped as Quaternary old alluvial valley deposits or Mint Canyon Formation. Initial part-time monitoring (i.e., spot-checking) shall be conducted for all ground-disturbing activities during excavations greater than 5 feet below the surface within areas mapped as active wash deposits and Quaternary young alluvial valley deposits to check for the presence of Quaternary old alluvial valley deposits or Mint Canyon Formation. The monitor shall be present on the first day that excavations reach greater than 5 feet below the surface in areas mapped as active wash deposits and Quaternary young alluvial valley deposits. If the monitor observes that only active wash deposits and/or Quaternary young alluvial valley deposits are being impacted by excavations, then spot-checking shall continue on a weekly basis unless excavations would occur that are anticipated to reach a greater depth than was observed by the monitor, in which case the monitor shall be present for those excavations. If, during the initial spot-check or subsequent spot-checks, the monitor observes that the excavations are in Quaternary old alluvial valley deposits or Mint Canyon Formation, then full-time paleontological monitoring shall ensue during all excavations reaching that depth to ensure that potential impacts to paleontological resources remain less than significant. Paleontological monitoring shall be conducted by a paleontological monitor with experience with collection and salvage of paleontological resources and who meets the minimum standards of the SVP (2010) for a Paleontological Resources Monitor.

  In the event of a fossil discovery by the paleontological monitor or construction personnel, all construction activity within 50 feet of the find shall cease, and the Qualified Professional Paleontologist shall evaluate the find. If the fossil(s) is (are) not scientifically significant, then construction activity may resume. If it is determined that the fossil(s) is (are) scientifically significant, the following shall be completed:

- **Fossil Salvage.** The paleontological monitor shall salvage (i.e., excavate and recover) the fossil to protect it from damage/destruction. Typically, fossils can be safely salvaged quickly by a single paleontological monitor with minimal disruption to construction activity. In some cases, larger fossils (such as complete skeletons or large mammal fossils) require more extensive excavation and longer salvage periods. Bulk matrix sampling may be necessary to recover small invertebrates or microvertebrates from within paleontologically sensitive deposits. After the fossil(s) is (are) salvaged, construction activity may resume.
- **Fossil Preparation and Curation**. Fossils shall be identified to the lowest (i.e., most-specific) possible taxonomic level, prepared to a curation-ready condition, and curated in a scientific institution with a permanent paleontological collection along with all pertinent field notes, photos, data, and maps. Fossils of undetermined significance at the time of collection may also warrant curation at the discretion of the Qualified Professional Paleontologist.

- **Final Paleontological Mitigation Report.** Upon completion of ground-disturbing activities (or laboratory preparation and curation of fossils, if necessary), the Qualified Professional Paleontologist shall prepare a final report describing the results of the paleontological monitoring efforts. The report shall include a summary of the field and laboratory methods employed; an overview of project geology; and, if fossils were discovered, an analysis of the fossils, including physical description, taxonomic identification, and scientific significance. The report shall be submitted to SCV Water and, if fossil curation occurred, the designated scientific institution.

Significance After Mitigation

Mitigation Measure GEO-1 would reduce potential impacts to paleontological resources to a less-than-significant level through the recovery, identification, and curation of previously unrecovered fossils. With implementation of Mitigation Measure GEO-1, the proposed project's impact on paleontological resources and unique geologic features would be less than significant.

LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED

8 Greenhouse Gas Emissions

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

Overview of Climate Change and Greenhouse Gases

Climate change is the observed increase in the average temperature of the Earth's atmosphere and oceans along with other substantial changes in climate (such as wind patterns, precipitation, and storms) over an extended period of time. Climate change is the result of numerous, cumulative sources of Greenhouse Gases (GHG) emissions contributing to the "greenhouse effect," a natural occurrence which takes place in Earth's atmosphere and helps regulate the temperature of the planet. The majority of radiation from the sun hits Earth's surface and warms it. The surface, in turn, radiates heat back towards the atmosphere in the form of infrared radiation. Gases and clouds in the atmosphere trap and prevent some of this heat from escaping into space and re-radiate it in all directions.

GHG emissions occur both naturally and from human activities, such as fossil fuel burning, decomposition of landfill wastes, raising livestock, deforestation, and some agricultural practices. GHGs produced by human activities include carbon dioxide (CO_2), methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride. Different types of GHGs have varying global warming potentials (GWP). The GWP of a GHG is the potential of a gas or aerosol to trap heat in the atmosphere over a specified timescale (generally, 100 years). Because GHGs absorb different amounts of heat, a common reference gas (CO_2) is used to relate the amount of heat absorbed to the amount of the gas emitted, referred to as "carbon dioxide equivalent" (CO_2e), which is the amount of a specific GHG emitted multiplied by its GWP. Carbon dioxide has a 100-year GWP of one. By contrast, methane has a GWP of 30, meaning its global warming effect is 30 times greater than CO_2 on a molecule per molecule basis (Intergovernmental Panel on Climate Change [IPCC] 2021).

The United Nations IPCC expressed that the rise and continued growth of atmospheric CO_2 concentrations is unequivocally due to human activities in the IPCC's Sixth Assessment Report (2021). Human influence has warmed the atmosphere, ocean, and land, which has led the climate to warm at an unprecedented rate in the last 2,000 years. It is estimated that between the period of 1850 through 2019, that a total of 2,390 gigatons of anthropogenic CO_2 was emitted. It is likely that anthropogenic activities have increased the global surface temperature by approximately 1.07

degrees Celsius between the years 2010 through 2019 (IPCC 2021). Emissions resulting from human activities are thereby contributing to an average increase in Earth's temperature. Potential climate change impacts in California may include loss of snowpack, sea level rise, more extreme heat days per year, more high ozone days, more large forest fires, and more drought years (California Natural Resource Agency 2019).

Significance Thresholds

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

According to the *CEQA Guidelines*, projects can tier from a qualified GHG reduction plan, which allows for project-level evaluation of GHG emissions through the comparison of the proposed project's consistency with the GHG reduction policies included in a qualified GHG reduction plan. This approach is considered by the Association of Environmental Professionals (2016) in its white paper, *Beyond Newhall and 2020*, to be the most defensible approach presently available under CEQA to determine the significance of a project's GHG emissions. SCV Water and the City of Santa Clarita have not adopted a numerical significance threshold for assessing impacts related to GHG emissions, but the City of Santa Clarita has adopted a CAP for reduction of GHG emissions. The SCAQMD, California Office of Planning and Research, CARB, CAPCOA, or any other state or applicable regional agency have not adopted a numerical significance threshold for assessing GHG emissions that is applicable to the proposed Project.

In the absence of any adopted numeric threshold, the significance of the proposed project's GHG emissions is evaluated consistent with *CEQA Guidelines* Section 15064.4(b) by considering whether the proposed project complies with applicable plans, policies, regulations, and requirements adopted to implement a statewide, regional, or local plan for the reduction or mitigation of GHG emissions.

Therefore, the significance of the proposed project's potential impacts regarding GHG emissions and climate change is evaluated based on consistency with plans and polices adopted for the purposes of reducing GHG emissions and mitigating the effects of climate change. The most directly applicable adopted regulatory plans to reduce GHG emissions are CARB's 2022 Scoping Plan, the City of Santa Clarita General Plan, and SCV Water's Sustainability Plan. GHG emissions from the construction and operation of the proposed project are provided for informational purposes.

Methodology

GHG emissions associated with project construction and operation were estimated using CalEEMod, version 2022.1, with the assumptions described under Methodology in Environmental Checklist Section 3, *Air Quality*. Construction emissions occur for a limited period of a project's lifetime; as a standard practice, GHG emissions from construction are amortized over a presumed project lifetime. A project lifetime of 30 years is recommended by SCAQMD (2008).

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

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

Plans and policies have been adopted to reduce GHG emissions in the Southern California region, including the SCV Water Sustainability Plan, City of Santa Clarita General Plan, and CARB's 2022 Scoping Plan. The following policies apply to the proposed project:

- **SCV Water Sustainability Plan: Measure CR-1:** Reduce construction emissions 15% by 2030 through decarbonization of construction machinery.
  - **Action CR-1-1:** Include electric and zero emission equipment in the preferred procurement policy for all applicable off-road equipment.
- **City of Santa Clarita General Plan: Conservation and Open Space Element Goal CO 1:** A balance between the social and economic needs of Santa Clarita Valley residents and protection of the natural environment, so that these needs can be met in the present and in the future.
  - **Objective CO 1.3:** Conserve and make more efficient use of non-renewable resource systems, such as fossil fuels, minerals, and materials.
    - **Policy CO 1.3.1**: Explore, evaluate, and implement methods to shift from using non-renewable resources to use of renewable resources in all aspects of land use planning and development.
    - **Policy CO 1.3.2**: Promote reducing, reusing, and recycling in all Land Use designations and cycles of development.
- **2022 Scoping Plan Goal:** Support climate adaptation and biodiversity that includes protection of the state's water supply, water quality, and infrastructure to achieve carbon neutrality as soon as possible (CARB 2022b).

The proposed project would improve the reliability and resiliency of the existing SCV Water sewer system, and thus the local sewer distribution network. Furthermore, SCV Water would implement Sustainability Plan Action CR-1-1 during the construction equipment procurement phase of the project, which would aid in achieving the goals and policies of the Santa Clarita General Plan referenced above, by increasing the use of electric and zero emission construction equipment during construction. Although the project would generate temporary construction emissions, the project would ultimately be consistent with the goals of the SCV Water Sustainability Plan, City of Santa Clarita General Plan, and the 2022 Scoping Plan. The proposed project would not conflict with any applicable plans, policies, or regulations to reduce GHG emissions. Therefore, impacts related to GHG emissions would be less than significant.

Quantified GHG Emissions for Information Purposes

Construction of the project would generate GHG emissions. Since the project would not include new operational activity, this analysis considers the GHG emissions from construction for informational purposes. Calculations of CO_2, CH_4, and N_2O emissions are provided to identify the magnitude of potential project effects.

Project construction would generate temporary GHG emissions primarily from the operation of construction equipment on site, as well as from vehicles transporting construction workers to and

from the project site and heavy trucks to transport materials. As shown in Table 9, construction associated with the project would generate 303 MT of CO_2e. Amortized over a 30-year period pursuant to SCAQMD guidance, construction associated with the project would generate 10 MT of CO_2e per year.

Table 9 Construction GHG Emissions

Year	Emissions (MT of CO_2e)
2025	303
Total	**303**
Amortized over 30 years	**10**

MT = metric tons; CO_2e = carbon dioxide equivalents

Source: Table 2.3 "Construction Emissions by Year, Mitigated" emissions. Annual emissions results are shown for all emissions. The mitigated emissions account for project sustainability features and/or compliance with specific regulatory standards. See CalEEMod worksheets in Appendix B.

LESS THAN SIGNIFICANT IMPACT

9 Hazards and Hazardous Materials

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project:				
a. Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	☐	☐	■	☐
b. Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	☐	☐	■	☐
c. Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within 0.25 mile of an existing or proposed school?	☐	☐	■	☐
d. Be located on a site that is included on a list of hazardous material sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	☐	■	☐	☐
e. For a project located in an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?	☐	☐	☐	■
f. Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☐	■	☐
g. Expose people or structures, either directly or indirectly, to a significant risk of loss, injury, or death involving wildland fires?	☐	☐	■	☐

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

Project construction would temporarily increase the transport and use of hazardous materials at the project site through the operation of vehicles and equipment. Such substances include diesel fuel, oil, solvents, and other similar materials brought onto the construction site for use and storage during the construction period. These materials would be contained within vessels specifically engineered for safe storage and would not be transported, stored, or used in quantities that would pose a significant hazard to the public or construction workers themselves. Furthermore, construction would require the excavation and transport of paving materials and soils which could possibly be contaminated by vehicle-related pollution (e.g., oil, gasoline, diesel, and other automotive chemicals). All such paving and soils removed during construction would be transported and disposed of in accordance with applicable codes and regulations to minimize potential hazards to construction workers or the surrounding community, including the Hazardous Material Transportation Act, Resource Conservation and Recovery Act, the California Hazardous Materials Management Act, and California Code of Regulations Title 22.

Project operation would involve the conveyance of wastewater and would not require a change in the use, storage, or disposal of hazardous materials from existing conditions. Therefore, the proposed project would not create a significant hazard to the public or the environment through the routine transport, use or disposal of hazardous materials. Impacts would be less than significant.

LESS THAN SIGNIFICANT IMPACT

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

The use, transport, and storage of hazardous materials during construction of the project (e.g., diesel fuel, oil, solvents, and other similar materials) could introduce the potential for an accidental spill or release to occur. As discussed under criterion a, above, operation and maintenance of the proposed project would not involve the routine transport, use, or disposal of hazardous materials. Therefore, potential impacts are limited to the construction period.

The presence of hazardous materials during project construction activities, including but not limited to ground-disturbing activities such as trenching and excavation, could result in an accidental upset or release of hazardous materials if they are not properly stored and secured. Hazardous materials used during construction would be disposed of off-site in accordance with all applicable laws and regulations, including but not limited to the California Fire Code, as well as regulations of the federal and state Occupational Safety and Health Administrations. Therefore, the proposed project would not create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment, and this impact would be less than significant.

LESS THAN SIGNIFICANT IMPACT

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

The closest school to the project site, Sulfur Springs Elementary, is located approximately 0.2 mile south of the project site. Construction may involve the temporary transport, storage, use, and disposal of hazardous materials. The management of hazardous materials is governed by several

federal, state, and local regulations described in criterion a, above. Compliance with these laws and regulations would minimize impacts related to hazardous emissions or the handling of hazardous materials during construction near schools to a less-than-significant level. During operation, the proposed project would not require the transport, storage, use, or disposal of hazardous materials, and would not result in hazardous emissions. Therefore, this impact would be less than significant.

LESS THAN SIGNIFICANT IMPACT

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

The following resources were reviewed in December 2023 to determine if the project site is located on a site included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5:

- California Department of Toxic Substance Control's EnviroStor database (California Department of Toxic Substance Control 2023)
- List of "active" Cease and Desist Orders (CDO) and Cleanup and Abatement Orders (CAO) from Regional Water Quality Control Boards (California Environmental Protection Agency 2023a)
- List of Solid Waste Disposal Sites with waste constituents above hazardous waste levels outside the waste management unit (California Environmental Protection Agency 2023b)
- State Water Resources Control Board's [SWRCB] GeoTracker database (SWRCB 2023a)

Based on these results, the eastern portion of the project site contains three former Leaking Underground Storage Tank cleanup sites adjacent to Sand Canyon Road: Shell Service Station (T060373172), ARCO #6006 (T0603704535), and Circle K SS (Former Mobil #18-LMQ) (T0603702307) (SWRCB 2023b, 2023c, 2023d). These cases were determined to be "Completed-Case Closed" in 2007, 1999, and 2015, respectively, meaning remedial action had been undertaken and following remedial action the Los Angeles Regional Water Quality Control Board (RWQCB) determined the sites no longer pose substantial risk related to hazardous materials.

Although these sites have been classified as "Completed-Case Closed" by Los Angeles RWQCB, there is still a risk that hazardous materials from these sites may have infiltrated the underlying soils. During excavation, there is a possibility of encountering hazardous materials sites during construction from potentially contaminated soil or groundwater, which could expose construction workers to hazards or result in discharge of hazardous materials to the Santa Clara River if improperly handled or disposed. Accordingly, this impact is potentially significant, and mitigation is required.

Mitigation Measures

HAZ-1 Soil and Groundwater Management Plan

Prior to commencement of construction activities at the project site, SCV Water shall retain a qualified consultant (i.e., Professional Geologist [PG] or Professional Engineer [PE]) to prepare a Soil and Groundwater Management Plan (SGMP). The SGMP, or equivalent document, shall be prepared to address on-site handling and management of impacted soils, groundwater, or other impacted wastes, and reduce hazards to construction workers and off-site receptors during construction. The SGMP shall establish remedial measures and/or soil and groundwater management practices to

ensure construction worker safety, the health of future workers and visitors, and prevent the off-site migration of contaminants from the site. These measures and practices may include, but are not limited to:

- Stockpile management, including stormwater pollution prevention and the installation of BMPs;
- Collection of groundwater samples during dewatering;
- Proper transportation and disposal procedures of impacted materials in accordance with applicable regulations, including California Code of Regulations (CCR) Title 22;
- Monitoring and reporting; and
- A health and safety plan for contractors working at the site that addresses the safety and health hazards of each phase of site construction activities with the requirements and procedures for employee protection and outlines proper soil and groundwater handling procedures and health and safety requirements to minimize worker and public exposure to hazardous materials during construction.

SCV Water shall review and approve the SGMP and shall ensure the construction contractor implements the SGMP prior to and during construction.

HAZ -2 Subsurface Investigation

If odorous or visually stained soils or groundwater, other indications of unanticipated piping or equipment (including hydrocarbon piping or equipment), or debris are encountered during ground disturbing activities, work in the immediate area shall be halted and SCV Water shall retain a qualified consultant (i.e., PG or PE) to conduct a subsurface investigation in the potentially impacted area. Work may continue on other parts of the project while impacted soil or groundwater investigation and/or remediation takes place. The subsurface investigation may include, but is not limited to, completion of soil and/or groundwater sampling and analysis for total petroleum hydrocarbons, volatile organic compounds, semi-volatile organic compounds, organochloride pesticides, and/or metals.

The PG or PE shall prepare a subsurface investigation report, which will be submitted to SCV Water for review and approval. As part of the subsurface investigation, analytical results shall be screened against the most recent San Francisco Bay Regional Water Quality Control Board (SFB RWQCB) Environmental Screening Levels (ESL; SFB RWQCB 2023).[6] The ESLs are risk-based screening levels for direct exposure of construction workers, residential land use, and commercial/industrial land use. The subsurface investigation report shall include recommendations to address identified hazards and indicate when to apply those recommended actions in relation to project activities.

If contaminants are detected at the project site, SCV Water shall implement the recommendations specified in the subsurface investigation report, and appropriate steps shall be undertaken by SCV Water to protect site workers during project construction. This could include preparation of an updated SGMP (see Mitigation Measure HAZ-1) and/or remediation, if required (see Mitigation Measure HAZ-3).

[6] Although established by the SFB RWQCB, the SFB RWQCB ESLs are accepted and used throughout the state by other RWQCBs and state agencies.

HAZ-3 Disposal and Remediation

If the subsurface investigation (see Mitigation Measure HAZ-2) identifies that contaminants are present within the construction limits at chemical concentrations exceeding ESLs and/or hazardous waste screening thresholds for contaminants in soil and groundwater (CCR Title 22, Section 66261.24), SCV Water shall retain a qualified consultant (i.e., PG or PE) to utilize the project site analytical results for waste characterization purposes prior to off-site transportation or disposal of potentially impacted soils, groundwater or other impacted wastes. The qualified consultant (i.e., PG or PE) shall provide disposal recommendations and arrange for proper disposal of the waste soils, groundwater or other impacted wastes (as necessary), and/or provide recommendations for remedial engineering controls, if appropriate.

Remediation of impacted soils, groundwater, or other impacted wastes and/or implementation of remedial engineering controls may require additional delineation of impacts; additional analytical testing per landfill or recycling facility requirements; soil excavation; and off-site disposal or recycling. Remediation shall be conducted within the construction footprint/areas of soil disturbance to screening levels implemented by the Los Angeles RWQCB.

SCV Water shall review, approve, and implement the project site disposal recommendations for soil, groundwater, or other impacted wastes prior to transport of impacted soils off-site, and review, approve, and implement remedial engineering controls, prior to construction.

Significance After Mitigation

Implementation of Mitigation Measures HAZ-1 through HAZ-3 during project construction would reduce potential hazardous material impacts to a less-than-significant level by implementing additional investigation and remedial measures, transportation of impacted materials, and /or soil and groundwater management practices to ensure construction worker health and safety.

LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED

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

The closest airport to the project site, the Agua Dulce Airport, is located approximately 8.5 miles northeast of the project site. The project site is located outside of the jurisdiction of an airport land use plan. Therefore, the proposed project would not result in a safety hazard or excessive noise for people residing or working in the project area. No impact would occur.

NO IMPACT

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

The City of Santa Clarita maintains a Local Hazard Mitigation Plan (LHMP) that is updated and adopted every five years (City of Santa Clarita 2021). The City's LHMP sets forth hazard mitigation strategies along with action items to help mitigate and combat various threats such as wildfire, drought, earthquakes, landslides, extreme heat, cyber-attacks, energy disruption, floods, and terrorism. SCV Water also maintains an LHMP which sets forth mitigation strategies to prevent damage to SCV Water infrastructure or interruption of SCV Water services (SCV Water 2023). The proposed project would not impair existing SCV Water infrastructure or cause interruption of SCV

Water services. Construction activities would require a temporary one-lane closure along northbound Sand Canyon Road which could potentially interfere with evacuation and emergency response procedures identified by the City's LHMP. However, pursuant to SCV Water's standard construction practices, a traffic control plan would be submitted to the City for review and approval. Traffic control measures would be implemented during lane closures, including flaggers at both ends. Implementation of the traffic control plan would ensure construction of the proposed project would not impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan. Operational activities associated with the proposed project would occur solely on the project site and would not interfere with emergency response. Therefore, the proposed project would not interfere with implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan. This impact would be less than significant.

LESS THAN SIGNIFICANT IMPACT

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

The project site is not within a Very High Fire Hazard Severity Zone designated by the California Department of Forestry and Fire Protection (CAL FIRE) but is located approximately one mile west of the nearest Very High Fire Hazard Severity Zone (CAL FIRE 2024). The project site contains vegetation which is considered combustible. The location of the project site in the wildland-urban interface could potentially expose construction workers to a risk involving wildland fires. Potential ignition sources may include sparks from exhaust pipes, discarded cigarette butts, contact of mufflers with dry grass, other sources of sparks or flame, and spills or releases of flammable materials such as gasoline. Construction equipment would be subject to standard operating procedures that would limit sources of ignition that could generate a wildland fire. All construction activities on the project site require fire safety protocols, including, but not limited to, on-site fire extinguishing equipment. Compliance with applicable federal and State laws and regulations related to the proper use, storage, and transport of hazardous materials would reduce the risk of wildfire ignition from the use of hazardous materials during construction activities. As such, construction would not expose people or structures, either directly or indirectly, to a significant risk of loss, injury, or death involving wildland fires, and impacts would be less than significant. During operation, the proposed project would not require operational activities beyond existing conditions and therefore would not increase risk to people or structures involving wildland fires beyond existing conditions. Therefore, this impact would be less than significant.

LESS THAN SIGNIFICANT IMPACT

10 Hydrology and Water Quality

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project:				
a. Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?	☐	■	☐	☐
b. Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?	☐	☐	■	☐
c. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:				
(i) Result in substantial erosion or siltation on- or off-site;	☐	☐	■	☐
(ii) Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site;	☐	☐	■	☐
(iii) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or	☐	☐	■	☐
(iv) Impede or redirect flood flows?	☐	☐	■	☐
d. In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?	☐	☐	■	☐
e. Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	☐	■	☐	☐

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

Soil disturbance would increase the potential for erosion and sedimentation. If construction activities occur during the rainy season, or in the event of heavy storms, soils from the site could be eroded and transported off-site or to downstream receiving waters. Additionally, spills, leakage, or improper handling and storage of substances such as oils, fuels, chemicals, metals, and other substances from vehicles, equipment, and materials used during project construction could contribute to stormwater pollutants.

Construction projects that disturb one acre or more of soil are subject to the requirements of the SWRCB's Construction Stormwater General Permit, which requires preparation and implementation of a SWPPP and BMPs to control the discharge of pollutants, including sediment, into surface water drainages. Construction of the proposed project would disturb approximately 2.4 acres; therefore, SCV Water would be required to obtain coverage under the Construction Stormwater General Permit and prepare and implement a SWPPP that specifies the stormwater monitoring and construction BMPs required to reduce pollutants in stormwater runoff. Typical BMPs would include, but would not be limited to, use of silt fences, fiber rolls, stabilized construction entrances/exists, storm drain inlet protection, wind erosion control, stockpile management, and materials storage and vehicle and equipment cleaning, fueling, and maintenance procedures that minimize the discharge of spills and leaks. In addition to Construction Stormwater General Permit requirements, pursuant to Section 19.90.030 of the City's Municipal Code, which SCV Water has elected to voluntarily comply with, if the City Engineer determines grading activities would not be completed prior to November 1, SCV Water must submit a Wet Weather Erosion Control Plan to the City Engineer which requires specific BMPs to minimize erosion, flooding, or the deposition of mud, debris, or construction related pollutants during the wet season. With adherence to regulatory requirements, project construction would not violate water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality, and impacts would be less than significant.

The California Department of Water Resources (DWR) maintains the Water Data Library, which contains groundwater level data for wells in California. One such well, located approximately 650 feet south of the project site on the southern end of the Santa Clara River, is currently active and as of November 15, 2023, estimated groundwater in the area at approximately 12 feet below ground surface (DWR 2024a). Excavation would range from approximately 6 to 11 feet below ground surface, and therefore is not anticipated to encounter groundwater. However, if groundwater is encountered, groundwater dewatering may be required from some excavation activities, which could be discharged into the Santa Clara River, the City's storm drain system, or the City's sewer system. As described in Initial Study Section 7, *Description of Project*, dewatered groundwater discharged to the Santa Clara River would be carried out in compliance with the Los Angeles RWQCB's *Waste Discharge Requirements for Discharges of Groundwater from Construction and Project Dewatering to Surface Waters in Coastal Watersheds of Los Angeles and Ventura Counties* (Order No. R4-2023-0429). Dewatered groundwater discharged to the City's storm drain system would be carried out in compliance with the Phase I MS4 permit. These permits require testing and treatment, as necessary, of groundwater prior to its release into surface waters or a storm drain system to prevent exceedances of effluent limitations and discharge flow rates. Dewatered groundwater discharged into the City's sewer system would be treated at the Saugus Water Reclamation Plant.

The project also would be required to implement a SGMP if contamination is encountered pursuant to Mitigation Measure HAZ-1, subsurface investigation pursuant to Mitigation Measure HAZ-2, and remediation and disposal pursuant to Mitigation Measure HAZ-3 in the event contaminated groundwater is encountered. Remedial activities pursuant to Mitigation Measure HAZ-3 would require contaminated groundwater to be remediated under screening levels implemented by the Los Angeles RWQCB prior to transportation or disposal of contaminated groundwater. Thus, Mitigation Measures HAZ-1 through HAZ-3 would ensure water is evaluated and meets the necessary quality standards before being reintroduced into the Santa Clara River and the underlying groundwater basin, discharged to the City's storm drain system, or discharged into the City's sanitary sewer system. Therefore, construction would not violate any water quality standards, waste discharge requirements, or otherwise substantially degrade water quality. Impacts would be less than significant with mitigation.

Upon completion of construction, the potential for unexpected leaks and/or breakages of existing infrastructure, which could affect water quality, would be reduced compared to the existing conditions due to pipeline replacement. Therefore, operation of the project would not violate any water quality standards or waste discharge or treatment requirements. Impacts would be less than significant.

LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED

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

The project site overlies the Santa Clara River Valley East Groundwater Subbasin, which is a high-priority basin as defined by the California Department of Water Resources (DWR 2024b). As discussed in criterion a, groundwater dewatering may be required during excavation activities. Extraction of groundwater can temporarily lower the groundwater table. Dewatered groundwater would be discharged to the Santa Clara River, City's storm drain system, or the City's sanitary sewer system. Dewatering activities would be temporary and short-term as pipeline construction activities move along the alignment. The dewatering activities would affect shallow groundwater levels over a maximum of four months and would not substantially decrease groundwater supplies or impede sustainable groundwater management.

The proposed project includes a 12-foot paved access road which would increase impervious surfaces on the project site. However, runoff flows would be directed into the Santa Clara River which would allow for water to percolate back into the groundwater basin. The proposed sewer pipeline would not interfere with groundwater recharge as the pipeline would be installed underground. Accordingly, the proposed project would not interfere substantially with groundwater recharge. As stated in Environmental Checklist Section 19,*Utilities and Service Systems*, the proposed project would not increase the demand for water because no structures that would directly or indirectly induce growth and require additional water supply would be constructed. Accordingly, the proposed project would not substantially decrease groundwater supplies. Therefore, this impact would be less than significant.

LESS THAN SIGNIFICANT IMPACT

c.(i) Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would result in substantial erosion or siltation on- or off-site?

Construction of the proposed project would increase the potential for erosion and sedimentation. However, as described in criterion a, construction activities would be required to comply with the Construction Stormwater General Permit, the City Municipal Code, as well as implementation of the required SWPPP and construction BMPs would minimize pollutant discharge in stormwater runoff. Adherence to these regulatory requirements would ensure erosion during construction would be minimized. Operation of the proposed project would generally preserve drainage patterns on site, and the proposed pipeline would be located belowground. Furthermore, the proposed project would include bank protection consisting of an 8-foot-wide soil cement section which would be vegetated with native plant species. This bank protection would reduce the potential erodibility of the northern bank of the Santa Clara River during operation. Accordingly, the proposed project would not cause substantial erosion or siltation. This impact would be less than significant.

LESS THAN SIGNIFICANT IMPACT

c.(ii) Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?

As discussed in criterion c(i), construction of the proposed project would comply with the requirements of the Construction Stormwater General Permit, including the preparation and implementation of a SWPPP. The SWPPP would include construction BMPs to control and direct on-site surface runoff. Therefore, construction activities would not substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site. Operation of the proposed project would generally preserve drainage patterns on site, and the proposed pipeline would be located belowground. The paved access road and proposed bridges result in a nominal increase of impervious surfaces to the project site. However, runoff would be directed to the Santa Clara River similar to existing conditions and therefore would not result in substantial on-site flooding. Because runoff would be directed toward Santa Clara River, the minimally increased surface runoff from the paved access road and proposed bridges would not risk substantial off-site flooding at the adjacent mobile homes. Accordingly, the proposed project would not cause substantial flooding. This impact would be less than significant.

LESS THAN SIGNIFICANT IMPACT

c.(iii) Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner that would create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?

As discussed in criterion c(i), the proposed project would comply with several regulations intended to control stormwater runoff and reduce pollutants and ensure construction activities would not result in substantial runoff water which would exceed the capacity of the Santa Clara River. These include the required SWPPP and construction BMPs that would direct and manage stormwater to

minimize impacts to the capacity of Santa Clara River. This would reduce potential impacts to a less-than-significant level.

LESS THAN SIGNIFICANT IMPACT

c.(iv) Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would impede or redirect flood flows?

As designated by the Federal Emergency Management Agency, the project site is located within Special Flood Hazard Area Zone AE, and the Santa Clara River regulatory floodway (Federal Emergency Management Agency 2024). The proposed pipeline would be located underground and therefore would not add impervious surfaces. The proposed project includes a 12-foot paved access road which would increase impervious surfaces on the project site. However, runoff flows would be directed into the Santa Clara River, similar to existing conditions. The portion of the proposed access road that overlies drainages to the Santa Clara River would be constructed of two pre-cast bridges. The bridges would be constructed above Zone AE and would therefore not interfere with or redirect flood waters. Therefore, the proposed project would not impede or redirect flood flows at the project site. This impact would be less than significant.

LESS THAN SIGNIFICANT IMPACT

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

The project site is approximately 28 miles north of the Pacific Ocean, and therefore is not subject to tsunami risk. The nearest inland surface water body that may be subject to risk of seiche is Castaic Reservoir, approximately 11.6 miles northwest of the project site. Given the distance to this water body, the project site is not subject to seiche. In addition, the project site is outside of the dam failure inundation zone for both Castaic Reservoir and Bouquet Reservoir (DWR 2024c).

As stated in criterion c(iv), the project site is located within Special Flood Hazard Area Zone AE, and the Santa Clara River regulatory floodway (Federal Emergency Management Agency 2024). Section 10.06.050(B) of the City of Santa Clarita Municipal Code requires all new and replacement sanitary sewage systems located in special flood hazard areas to be designed to minimize or eliminate the infiltration of floodwaters into the systems and the discharge from the systems into floodwaters. The purpose of the proposed project is to relocate the existing sewer line from within the flow path of the Santa Clara River into the adjacent overbank which would reduce the potential the sewer line could be inundated compared to existing conditions. The proposed project would be designed and constructed to minimize the potential for pollutant release and therefore be consistent with Section 10.06.050(B) of the Municipal Code. As discussed in criterion a, the potential for unexpected leaks and/or breakages of existing infrastructure, which could affect water quality, would be reduced compared to the existing conditions due to pipeline replacement. In addition, the portion of the proposed access road that overlies the Santa Clara River would be constructed of two pre-cast bridges that would not be at risk of inundation as the bridges would be constructed above the flood hazard zones of the Santa Clara River. Therefore, project design would minimize the potential for pollutant release due to inundation in a flood hazard zone, and this impact would be less than significant.

LESS THAN SIGNIFICANT IMPACT

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

Water Quality Control Plan

The Los Angeles RWQCB Basin Plan designates beneficial uses for surface waters in the Los Angeles region and associated water quality objectives to fulfill such uses. The project site is within the Santa Clara River watershed and drains to Reach 7 of the Santa Clara River. Reach 7 and all downstream reaches have designated beneficial uses of Municipal and Domestic Supply (potential), Industrial Service Supply, Industrial Process Supply, Agricultural Supply, Groundwater Recharge, Freshwater Replenishment, Warm Freshwater Habitat, Wildlife Habitat, Rare, Threatened and Endangered Species, Wetland Habitat, Water Contact Recreation, and Non-contact Water Recreation (Los Angeles RWQCB 2020). Reach 7 of the Santa Clara River is listed on the Los Angeles RWQCB's 303(d) list of impaired and threatened waters due to the presence of indicator bacteria (Los Angeles RWQCB 2024).

As described above in criterion a, the project would implement stormwater BMPs to minimize potential temporary construction-related water quality impacts pursuant to the Construction Stormwater General Permit. However, there is potential for dewatering of groundwater to occur, which, if not disposed of properly, could result in pollutants entering the Santa Clara River. Accordingly, there is potential the proposed project could conflict with the Los Angeles RWQCB Basin Plan. However, the discharge of dewatered groundwater into the Santa Clara River would occur in accordance with the Los Angeles RWQCB Order No. R4-2023-0429 and discharge of dewatered groundwater into the City's storm drain system would occur in accordance with the Phase I MS4 permit. These permits require testing and treatment, as necessary, of groundwater prior to its release into surface waters or a storm drain system to prevent exceedances of effluent limitations and discharge flow rates. In addition, SCV Water would implement Mitigation Measures HAZ-1 through HAZ-3 to reduce potential impacts associated with contaminated groundwater. SCV Water would be required to implement a SGMP pursuant to Mitigation Measure HAZ-1, subsurface investigation pursuant to Mitigation Measure HAZ-2, and remediation pursuant to Mitigation Measure HAZ-3. If the water collected from the dewatering process is discharged back to the riverbed, Mitigation Measures HAZ-1 through HAZ-3 would ensure the water is evaluated and meets the necessary quality standards before being reintroduced into the Santa Clara River and the underlying groundwater basin, discharged to the City's storm drain system, or discharged into the City's sanitary sewer system. With adherence to existing permit requirements and implementation of Mitigation Measures HAZ-1 through HAZ-3, construction of the proposed project would not impair beneficial uses identified in the Basin Plan, and the impact would be reduced to a less-than-significant level.

Project operation would not involve ground disturbance that would contribute to runoff of sediment or sediment-bound pollutants, and the project does not involve septic systems, pet parks, agricultural land, or other land uses commonly associated with high concentrations of nutrients, indicator bacteria, or chemical toxicity. No chemicals would be stored on site. Therefore, operation of the project would not exacerbate existing impairments to the Santa Clara River and would not impair existing or potential beneficial uses of nearby water bodies. This impact would be less than significant.

Sustainable Groundwater Management Plan

The project site overlies the Santa Clara River Valley East Groundwater Subbasin. The Santa Clarita Valley Groundwater Sustainability Agency oversees management of the subbasin, guided by the Santa Clara River Valley East Groundwater Subbasin Groundwater Sustainability Plan, adopted in January 2022.

Construction of the proposed project could involve dewatering activities during pipeline installation. Dewatering activities would be temporary and short-term as pipeline construction activities move along the alignment within the Santa Clara Riverbed. Dewatering activities would not remove substantial volumes of groundwater from the subbasin such that a substantial decrease in groundwater supplies would occur.

The project does not propose residential, commercial, industrial, or other land uses that would increase water demand and require additional water supply. As such, operation of the project would not increase groundwater extraction beyond previous operating conditions and, therefore, would not conflict with or obstruct implementation of the Groundwater Sustainability Plan. This impact would be less than significant.

LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED

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11 Land Use and Planning

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

a. Would the project physically divide an established community?

The proposed project would replace an existing sewer pipeline at the overbank of the Santa Clara River. The proposed project would not occur within an established community or otherwise include features that could physically divide an established community. No impact would occur.

NO IMPACT

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

Pursuant to California Government Code 53091, the building and zoning ordinances of a county or city do not apply to the location or construction of facilities for the production, storage, or transmission of water, wastewater, or electrical energy by a local agency. The project would entail the construction and operation of a replacement sewer pipeline. Therefore, the building and zoning ordinances of the City of Santa Clarita would not apply to the proposed project. The project is evaluated here for consistency with the City of Santa Clarita General Plan.

The City of Santa Clarita General Plan identifies objectives and policies to maintain public infrastructure and provide clean water for Valley residents and businesses. The proposed project's consistency with applicable General Plan goals, objectives, and policies is described in Table 10. As shown therein, the proposed project would actively support the City's goals, policies, and objectives related to providing conveyance and treatment of wastewater. Therefore, the project would not cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect, and no impact would occur.

Table 10 General Plan Consistency

General Plan Goal or Policy	Proposed Project Consistency
Policy CO 4.4.4. Promote the extension of sanitary sewers for all urban uses and densities, to protect groundwater quality, where feasible.	**Consistent.** The proposed project would enable SCV Water to continue to provide reliable wastewater services.
Policy LU 7.3.4. Implement best management practices for erosion control throughout the construction and development process.	**Consistent.** As discussed in Environmental Checklist Section 8, *Geology and Soils,* and Section 9, *Hazards and Hazardous Materials,* the proposed project would implement erosion control BMPs and cease work in the event contaminated soils or groundwater are discovered.
Goal LU 9: Adequate public facilities and services, provided in a timely manner and in appropriate locations to serve existing and future residents and businesses.	**Consistent:** Through the replacement of an existing sewer pipeline, the proposed project would ensure the reliability and longevity of the sewer system.

Source: City of Santa Clarita 2011

NO IMPACT

12 Mineral Resources

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

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

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

According to the Santa Clarita General Plan's Conservation and Open Space Element, the project site is within the Mineral Resource Zone 2 (MRZ-2) area (City of Santa Clarita 2011). MRZ-2 includes areas where adequate information indicates mineral deposits are present, are concentrated along waterways, such as the Santa Clara River, as well as east of Sand Canyon Road. The project would not include mineral extraction and would not affect the availability of minerals in this MRZ-2 area. The site is not located in a zone of oil and natural gas extraction and production (City of Santa Clarita 2011). No mines or quarries exist at the project site. Accordingly, the proposed project would not result in the loss of availability of a known mineral resource or a locally important mineral resource recovery site. No impact would occur.

NO IMPACT

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13 Noise

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

Noise Overview

The unit of measurement used to describe a noise level is the decibel (dB). However, the human ear is not equally sensitive to all frequencies within the sound spectrum. Therefore, a method called "A weighting" is used to filter noise frequencies which are not audible to the human ear. A-weighting approximates the frequency response of the average young ear when listening to most ordinary everyday sounds. A person's relative judgment of the loudness or annoyance of a sound correlates well with the "A-weighted" levels of those sounds. Therefore, the A-weighted noise scale is used for measurements and standards involving the human perception of noise. In this analysis, all noise levels are A-weighted, and "dBA" is understood to identify the A-weighted decibel.

Decibels are measured on a logarithmic scale which quantifies sound intensity in a manner similar to the Richter scale used for earthquake magnitudes. A 10 dB increase represents a 10-fold increase in sound intensity, a 20 dB change is a 100-fold difference, 30 dB is a 1,000-fold increase, etc. Thus, a doubling of the energy of a noise source, such as doubling of traffic volume, would increase the noise level by 3 dB; a halving of the energy would result in a 3 dB decrease.

Human perception of noise has no simple correlation with acoustical energy. The perception of noise is not linear in terms of dBA or in terms of acoustical energy. Two equivalent noise sources combined do not sound twice as loud as one source. It is widely accepted that the average healthy ear can barely perceive changes of 3 dBA; a change of 5 dBA is readily perceptible; and an increase of 10 dBA sounds twice as loud.

Descriptors

The impact of noise is not a function of loudness alone. The time of day when noise occurs, and the duration of the noise are also important. In addition, most noise that lasts for more than a few seconds is variable in its intensity. Consequently, a variety of noise descriptors has been developed. The noise descriptors used for this analysis are the one-hour equivalent noise level (L_{eq}). The L_{eq} is defined as the single steady A-weighted level that is equivalent to the same amount of energy as that contained in the actual fluctuating levels over a period. Typically, L_{eq} is equivalent to a one-hour period, even when measured for shorter durations as the noise level of a 10- to 30-minute period would be the same as the hour if the noise source is relatively steady. L_{max} is the highest Root Mean Squared (RMS) sound pressure level within the sampling period, and L_{min} is the lowest RMS sound pressure level within the measuring period.

Propagation

Sound from a small, localized source (approximating a "point" source) radiates uniformly outward as it travels away from the source in a spherical pattern, known as geometric spreading. The sound level decreases or drops off at a rate of 6 dBA for each doubling of the distance. Traffic noise is not a single, stationary point source of sound. Over time, the movement of vehicles makes the source of the sound appear to emanate from a line (line source) rather than a point. The drop-off rate for a line source is 3 dBA for each doubling of distance.

The propagation of noise is also affected by the intervening ground, known as ground absorption. A hard site (such as parking lots or smooth bodies of water) receives no additional ground attenuation and the changes in noise levels with distance (drop-off rate) are simply the geometric spreading of the source. A soft site (such as soft dirt, grass, or scattered bushes and trees) receives an additional ground attenuation value of 1.5 dBA per doubling of distance.

Noise levels may also be reduced by intervening structures; the amount of attenuation provided by this "shielding" depends on the size of the object and the frequencies of the noise levels. Natural terrain features such as hills and dense woods, and man-made features such as buildings and walls, can significantly alter noise levels. Generally, any large structure blocking the line of sight will provide at least a 5-dBA reduction in source noise levels at the receiver (Federal Highway Administration [FHWA] 2011).

Vibration Overview

Vibration levels are usually expressed as a single-number measure of vibration magnitude in terms of velocity or acceleration, which describes the severity of the vibration without the frequency variable. The peak particle velocity (PPV) is defined as the maximum instantaneous positive or negative peak of the vibration signal, usually measured in inches per second. Since it is related to the stresses experienced by buildings, PPV is often used in monitoring and controlling construction vibration. Although PPV is appropriate for evaluating the potential of building damage, it is not suitable for evaluating human response. It takes some time for the human body to respond to vibrations. In a sense, the human body responds to an average vibration amplitude (Federal Transit Administration [FTA] 2018). Because vibration waves are oscillatory, the net average of a vibration signal is zero. Thus, the RMS amplitude is used to describe the "smoothed" vibration amplitude (FTA 2018). The RMS of a signal is the square root of the average of the squared amplitude of the signal, usually measured in inches per second. The average is typically calculated over a one-second period. The RMS amplitude is always less than the PPV and is always positive. Decibel notation is used to

compress the range of numbers required to describe vibration. The abbreviation "VdB" is used in this analysis for "vibration decibels" to reduce the potential for confusion with sound decibels.

Sensitive Receptors

Noise exposure goals for various types of land uses reflect the varying noise sensitivities associated with those uses. Noise-sensitive land uses are those in which persons occupying the uses are particularly sensitive to the effects of noise, including housing, schools, medical facilities, libraries, social care facilities, and similar facilities. Vibration-sensitive receptors, which are similar to noise-sensitive receptors, include residences and institutional uses, such as schools, churches, and hospitals. However, vibration-sensitive receptors also include buildings where vibrations may interfere with vibration-sensitive equipment that is affected by vibration levels that may be well below those associated with human annoyance (e.g., recording studios or medical facilities with sensitive equipment). The closest sensitive receptors are residences at the Sand Canyon Mobile Home Park located directly west of Sand Canyon Road, with the closest residences located as close as 20 feet from the proposed sewer line alignment. Additional sensitive receptors include the single-family residences located approximately 270 feet north of the project site across from Antelope Valley Freeway (State Route [SR] 14), single-family residences located approximately 740 feet south of the project site along La Veda Avenue, and Sulphur Springs Elementary School located approximately 1,025 feet south of the project site along Lost Canyon Road.

Project Noise Setting

The primary noise source in the vicinity of the project site is vehicular traffic along Antelope Valley Freeway (SR 14) and Sand Canyon Road. In addition, noise is generated by residents at the Sand Canyon Mobile Home Park.

To characterize ambient noise levels at sensitive receptors near the project area, two short-term (15-minute) noise level measurements were conducted on January 25, 2024, using an Extech Model 407780A, ANSI Type 2 integrating sound level meter. The sound level meter was calibrated prior to collecting noise measurements. Noise measurement locations are shown on Figure 4. Short-term noise measurement (ST) 1 was conducted near the mobile home located at the southwestern corner of the Sand Canyon Mobile Home Park and ST 2 was conducted at the mobile homes located along Sand Canyon Road. Table 11 provides descriptions of the noise measurement locations and summarizes the results of the noise measurements.

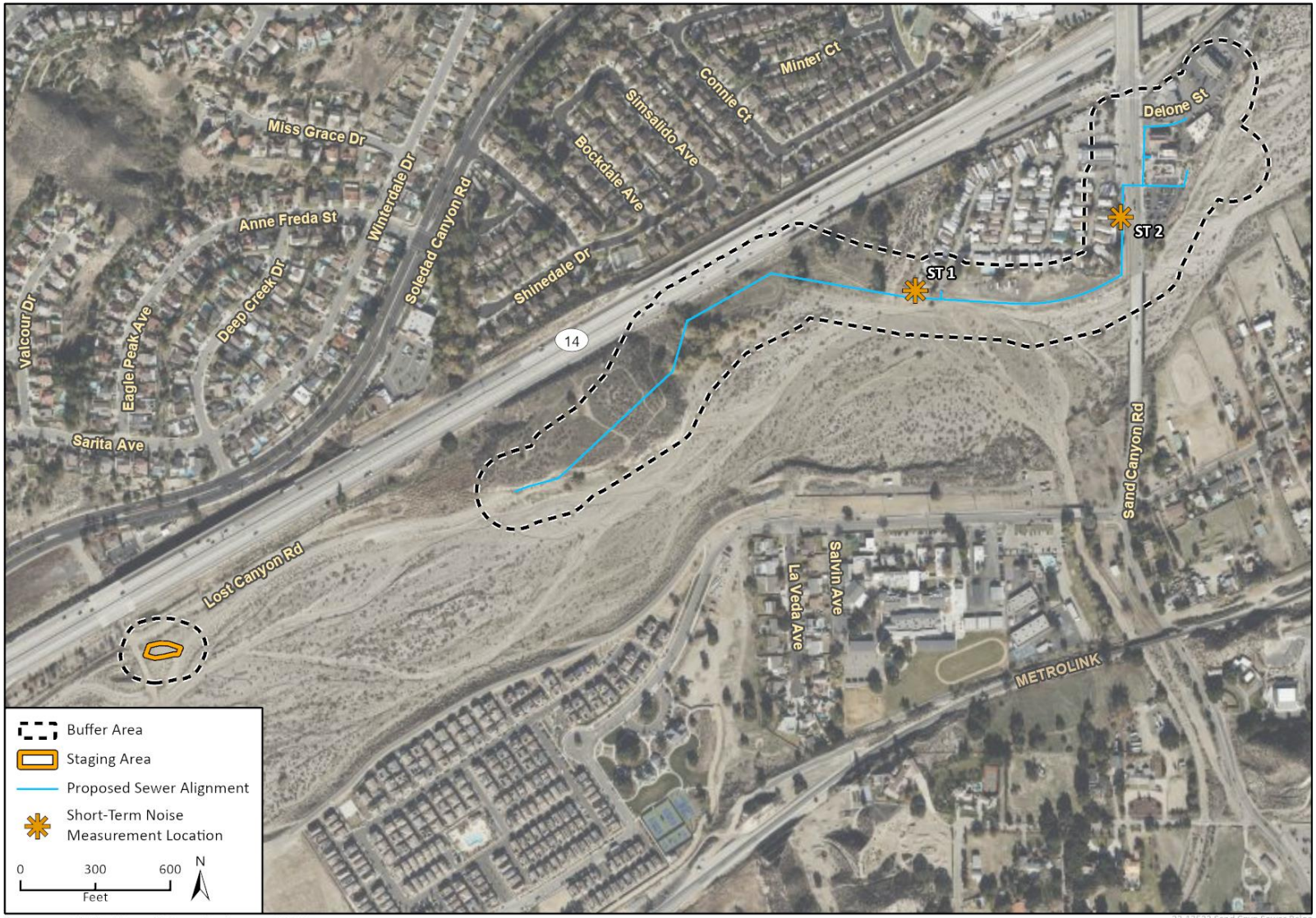
Table 11 Short-Term Noise Measurement Results

Measurement Location	Measurement Location	Sample Times[1]	L_{eq} (dBA)	L_{min} (dBA)	L_{max} (dBA)
ST 1	Southwestern corner of Sand Canyon Mobile Home Park	9:54–10:09 a.m.	68.4	48.6	79.4
ST 2	Eastern boundary of Sand Canyon Mobile Home Park, along Sand Canyon Rd	10:14–10:29 a.m.	61.1	49.0	79.6

Note: dBA = A-weighted decibels; L_{eq} = equivalent noise level; L_{min} = minimum noise level, L_{max} = maximum noise level

[1] All short-term measurements were collected on January 25, 2024.

Figure 4 Short-Term Noise Measurement Locations



Significance Thresholds

The Santa Clarita Municipal Code (SCMC) addresses construction noise in the following section:

> **SCMC Section 11.44.080.** No person shall engage in any construction work which requires a building permit from the City on sites within 300 feet of a residentially zoned property except between the hours of 7:00 a.m. to 7:00 p.m., Monday through Friday, and 8:00 AM. To 6:00 PM. 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. Emergency work [defined as "…work made necessary to restore property to a safe condition following a public calamity, or work required to protect persons or property from an imminent exposure to danger, or work by private or public utilities when restoring utility service" in SCMC Section 11.44.020(D)] is permitted at all times. The Department of Community Development may issue a permit for work to be done "after hours;" provided that containment of construction noises is provided.

The SCMC does not provide a quantitative construction noise threshold. Therefore, based on FTA Transit Noise and Vibration Impact Assessment (2018) criteria, construction noise would be significant if noise levels exceed 80 dBA L_{eq} for an 8-hour period at residential uses or construction is conducted outside the allowable hours for construction as stated in Section 11.44.080.

The SCMC also does not provide a quantitative vibration threshold. Therefore, vibration limits used in this analysis to determine a potential impact to local land uses are based on guidelines for vibration damage potential contained in Caltrans' (2020) *Transportation and Construction Vibration Guidance Manual*, shown in Table 12. According to the values presented in Table 12, construction vibration impact would be significant if vibration levels exceed 0.2 in/sec PPV for fragile buildings at the nearest mobile homes.

Table 12 Caltrans Vibration Damage Potential Threshold Criteria

Type of Situation	Transient Sources (in/sec PPV)	Continuous/Frequent Intermittent Sources (in/sec PPV)
Extremely fragile historic buildings, ruins, and ancient monuments	0.12	0.08
Fragile buildings	0.2	0.1
Historic sites and some old buildings	0.5	0.25
Older residential structures	0.5	0.3
New residential structures	1.0	0.5
Modern industrial/commercial buildings	2.0	0.5

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

Source: Caltrans 2020

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

Construction

Temporary noise levels caused by construction activity would be a function of the noise generated by construction equipment, the location and sensitivity of nearby land uses, and the timing and duration of noise-generating activities. For a construction noise assessment, construction equipment can be considered to operate in two modes: stationary and mobile. As a rule, stationary equipment operates in a single location for one or more days at a time, with either fixed-power operation (e.g., pumps, generators, and compressors) or variable-power operation (e.g., pile drivers, rock drills, and pavement breakers). Conversely, mobile equipment moves around the construction site with power applied in cyclic fashion, such as bulldozers, graders, and loaders (FTA 2018). Noise impacts from stationary equipment are assessed from the center of the equipment, while noise impacts from mobile construction equipment are assessed from the center of the equipment activity area (e.g., construction site).

Construction noise was estimated using the Federal Highway Administration's (FHWA) Roadway Construction Noise Model (RCNM). Typical construction projects have long-term noise averages that are lower than louder short-term noise events due to equipment moving from one point to another on the site, work breaks, and idle time. Each phase of construction has a specific equipment mix depending on the work to be carried out during that phase. Accordingly, each phase also has its own noise characteristics; some will have higher continuous noise levels than others, and some may have discontinuous high-impact noise levels. The maximum hourly L_{eq} of each phase is determined by combining the L_{eq} contributions from each piece of equipment used in that phase (FTA 2018). Project construction phases would include grubbing and land clearing, grading and excavation, infrastructure installation (drainage, utilities, and sub-grading), and paving. It is assumed that diesel engines would power all construction equipment. For assessment purposes, the loudest phase (grading and excavation) was modeled under the conservative assumption that an excavator, tractor, grader, roller, and backhoe would be operating simultaneously.

Construction would occur from 8:00 a.m. to 5:00 p.m., Monday through Friday, and would therefore not conflict with the SCMC. Pipeline construction activities would be mobile and would be constantly moving in a linear path along the pipeline alignment. Construction equipment would travel linearly along the pipeline alignment, therefore exposure to the nearest sensitive receptors would be temporary, and the distance to the receptors would vary over the course of a construction day. It was assumed the nearest sensitive receptors (the residences located at the Sand Canyon Mobile Home Park) would be exposed to construction noise at an average distance of approximately 25 feet throughout a typical construction workday. Table 13 shows the results of the noise modeling from RCNM.

Table 13 Construction Noise Levels at Sensitive Receptors During Loudest Construction Phase (Grading and Excavation)

Sensitive Receptor	Distance (feet)	Noise Level (dBA L_{eq})
Distance at which construction noise threshold is exceeded	101	81
Mobile homes along Sand Canyon Road	25	93
Mobile home at southwest corner of Sand Canyon Mobile Home Park	40	89
Single-family homes to the north across Antelope Valley Freeway (SR 14)	270	72
Single-family homes to the south along La Veda Avenue	740	63
Sulphur Springs Elementary School	1,025	60

Note: Noise levels were calculated assuming that an excavator, tractor, grader, roller, and backhoe would be operating simultaneously. Distances are measured from the central alignment of the project site to account for the variable movement of mobile construction equipment.

See Appendix E for construction noise modeling output.

As shown in Table 13, construction noise levels would exceed 80 dBA L_{eq} at sensitive receptors located 101 feet and closer to construction activity. Therefore, construction noise would reach up to 93 dBA L_{eq} at the mobile homes along Sand Canyon Road (located 25 feet from proposed construction activities) and 89 dBA L_{eq} at the mobile home at the southwestern corner of the Sand Canyon Mobile Home Park (located 40 feet from proposed construction activities). Construction noise levels at these sensitive receptors would therefore exceed the FTA's 80 dBA L_{eq} threshold, resulting in temporary construction noise impacts that would require mitigation.

Conversely, construction noise levels at sensitive receptors located more than 101 feet from proposed construction activities would be 80 dBA L_{eq} and below; therefore, construction noise levels at the single-family homes to the north across Antelope Valley Freeway (SR 14), the single-family homes to the south along La Veda Avenue, and the Sulphur Springs Elementary School would be below 80 dBA L_{eq}. Temporary construction noise impacts at these sensitive receptors would be less than significant and would not require mitigation.

Operation

Because the project consists of an underground pipeline, project operation would not generate noise at the aboveground sensitive receptors. In addition, the project would not require new maintenance activities that would generate noise. Therefore, no operational noise impacts would occur.

Mitigation Measures

NOI-1 Construction Management Plan

Prior to the start of ground-disturbing construction activities, a Construction Management Plan shall be created that includes the following:

- Prior to the initiation of construction activities at the project site that occur within 101 feet of nearby sensitive receptors, the contractor shall install temporary noise barriers/blankets between the construction boundary and these sensitive residential receptors. More specifically, temporary noise barriers/blankets shall be installed along the property line between the construction boundary and the residences at the Sand Canyon Mobile Home Park. The temporary barriers/blankets shall have a minimum height of 10 feet to block the line of sight

between the construction source and the adjacent residential receptors to the north and east of the proposed pipeline alignment. Barriers shall be constructed with a solid material that has a density of at least 1 pound per square foot with no gaps from the ground to the top of the barrier and be lined on the construction side with acoustical blanket, curtain or equivalent absorptive material rated STC 32 or higher.

- At least 10 days prior to the start of construction activities, a sign shall be posted at the construction site, or other conspicuous location, which includes a telephone number for project information, and a procedure in which a construction manager will respond to and investigate noise complaints and take corrective action, if necessary, in a timely manner.
- At least 21 days prior to the start of construction activities, businesses and residents within 500 feet of the project site shall be notified of the planned construction activities. The notification shall include a brief description of the project, the activities that would occur, the hours when construction would occur, and the construction period's overall duration. The notification shall include the telephone numbers of SCV Water's and contractor's authorized representatives that are assigned to respond in the event of a noise complaint.
- If a construction noise complaint is registered, SCV Water shall retain a qualified noise consultant to conduct noise measurements at the properties that registered the complaint. The noise measurements shall be conducted for a minimum of one hour. The consultant shall prepare a letter report for code enforcement summarizing the measurements, calculation data used in determining impacts, and potential measures to reduce noise levels to the maximum extent feasible.
- Prior to the start of and for the duration of construction, the contractor shall properly maintain and tune all construction equipment in accordance with the manufacturer's recommendations to minimize noise emissions.
- Prior to use of any construction equipment, the contractor shall fit all equipment with properly operating mufflers, air intake silencers, and engine shrouds no less effective than as originally equipped by the manufacturer.
- Staging and delivery areas shall be located as far as feasible from existing residences.
- Material hauling and deliveries shall be coordinated by the construction contractor to reduce the potential of trucks waiting to unload for protracted periods of time.
- To the extent feasible, hydraulic equipment shall be used instead of pneumatic impact tools, and electric-powered equipment shall be used instead of diesel-powered equipment.
- Stationary noise sources (e.g., generators) shall be located as far from sensitive receptors as practicable, and they shall be muffled and enclosed within temporary sheds, or insulation barriers with a minimum STC rating of 32.
- The use of bells, whistles, alarms, and horns shall be restricted to safety warning purposes only.
- Signs shall be posted at the job site entrance(s), within the on-site construction zones, and along queueing lanes (if any) to reinforce the prohibition of unnecessary engine idling. All other equipment shall be turned off if not in use for more than five minutes. The construction manager shall be responsible for enforcing this.

SCV Water shall require implementation of the above noise reduction measures as part of the construction contract and shall confirm the above noise reduction measures are implemented by the construction contractor at the beginning of the construction period, and as needed during the construction period.

Significance After Mitigation

Implementation of Mitigation Measure NOI-1, including the use of temporary noise barriers, would reduce construction noise levels by 15 to 20 dBA (Bies, Hansen, and Howard 2018; Harris and Cyril 1991). Therefore, implementation of Mitigation Measure NOI-1 would result in mitigated construction noise levels of 73 to 78 dBA L_{eq} at the mobile homes nearest to project construction activity and construction noise impacts would be reduced to less than significant with mitigation.

The temporary barriers/blankets would block the line of sight between Santa Clara River and the adjacent residential receptors to the north and east of the proposed pipeline alignment. However, as discussed in Environmental Checklist Section 1, *Aesthetics*, construction activities, including the use of temporary noise barriers, would not result in the long-term obstruction of views from the Santa Clara River. Therefore, the use of temporary noise barriers/blankets would not result in a significant impact to scenic vistas.

LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED

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

Construction

Construction activities known to generate excessive groundborne vibration, such as pile driving, would not be conducted as part of the project. Therefore, the greatest known sources of vibration during project construction activities may be a vibratory roller and large bulldozer during the grading and excavation phase, which may be used as close as approximately 14 and 15 feet, respectively, to the nearest mobile home along Sand Canyon Road. A vibratory roller would generate a vibration level of approximately 0.210 in/sec PPV at a distance of 25 feet (Caltrans 2020), which would equate to a vibration level of approximately 0.501 in/sec PPV at 14 feet.[7] As a result, use of the vibratory roller would exceed 0.2 in/sec PPV at fragile buildings, the threshold at which structural damage occurs to older/fragile residential structures. Therefore, temporary vibration impacts associated with use of the roller would require mitigation.

Conversely, a large bulldozer would generate a vibration level of approximately 0.089 in/sec PPV at 25 feet, which would equate to a vibration level of approximately 0.191 in/sec PPV at 15 feet. Therefore, vibration generated by a large bulldozer (and similar equipment) would not exceed the 0.2 in/sec PPV threshold at nearby sensitive receptors and temporary construction vibration impacts associated with this type of equipment would be less than significant.

Operation

Operation of the project would involve the operation of an underground pipeline and would therefore not include any operational sources of vibration. No operational vibration impacts would occur.

[7] $PPV_{Equipment} = PPV_{Ref} (25/D)^n$ (in/sec), PPV_{Ref} = reference PPV at 25 feet, D = distance ,and n = 1.1

Mitigation Measures

NOI-2 Alternative Construction Equipment

In order to reduce vibration levels generated at nearby sensitive receptors at the Sand Canyon Mobile Home Park, the following measures shall be included as notes on all construction plans:

- Construction phases that utilize a roller within 26 feet of nearby structures shall be conducted with a static or pneumatic roller in lieu of a vibratory roller.

Significance After Mitigation

Implementation of Mitigation Measure NOI-2 would require the use of a static or pneumatic roller so as not to generate vibration levels exceeding the 0.2 in/sec PPV at fragile buildings threshold at residences near the project area. A static or pneumatic roller generates a vibration level of 0.05 in/sec PPV at 25 feet (IR McIver 2012), which would result in a vibration level of 0.12 in/sec PPV at 14 feet. Therefore, use of a static or pneumatic roller during project construction would result in vibration levels below the threshold for structural damage, and temporary impacts associated with construction vibration would be less than significant.

LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED

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

The closest public or public use airport to the project site is the Agua Dulce Airport (L70), located approximately 8.5 miles northeast of the project site. The project site is not located within the noise contours for the airport according to the Agua Dulce Airport Influence Area Map developed by the Los Angeles County Airport Land Use Commission (Los Angeles County ALUC 2003). Therefore, project construction workers would not be exposed to temporary and short-term airport noise. No impact would occur.

NO IMPACT

14 Population and Housing

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

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

The proposed project would not cause direct growth because the proposed project does not propose the introduction of new residences, businesses, or other land uses which would generate population growth. The proposed project involves the installation of a sewer pipeline; however, the sewer pipeline is intended to replace an existing sewer pipeline rather than serve an undeveloped area. Therefore, the proposed project would not introduce infrastructure that would indirectly result in population growth. No impact would occur.

NO IMPACT

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

No residences are located within the project site. Therefore, the proposed project would not result in the displacement of existing people or housing. No impact would occur.

NO IMPACT

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15 Public Services

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

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

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

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

a.4. Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered parks, or the need for new or physically altered parks, the

construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios or other performance objectives?

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

The proposed project involves the installation and operation of a new sewer pipeline to replace an existing sewer line. The proposed project would not introduce new infrastructure, such as residences or businesses, requiring additional fire or police protection services. As described in Environmental Checklist Section 14, *Population and Housing*, the proposed project does not include development of infrastructure that would directly or indirectly increase the population of Santa Clarita; therefore the proposed project would not necessitate new or expanded park facilities or result in substantial physical deterioration of existing library or other community facilities. No impact would occur.

NO IMPACT

16 Recreation

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

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

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?

As described in Environmental Checklist Section 14, *Population and Housing*, the proposed project would not increase the population of Santa Clarita; therefore, the proposed project would not increase the use of existing parks and recreational facilities. The proposed project does not include or require the construction or expansion of recreational facilities. No impact would occur.

NO IMPACT

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17 Transportation

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

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

Construction-related vehicle trips would include construction workers traveling to and from the project site, haul trucks (including for soil import), and other trucks associated with equipment and material deliveries. Given the minimal number of trips generated and the limited impact to public transit and pedestrian facilities, the proposed project would not conflict with adopted policies, plans, or programs addressing the circulation system, including public transit, bicycle, or pedestrian facilities.

Regional and local plans and policies addressing the circulation system include the City of Santa Clarita General Plan Circulation Element and the SCAG 2020-2045 Regional Transportation Plan/Sustainable Communities Strategy (City of Santa Clarita 2011; SCAG 2020). The proposed project involves the installation and operation of a sewer pipeline, which would not conflict with the City's or SCAG's adopted policies, plans, or programs supporting transit, roadway, bicycle, and pedestrian facilities. Construction traffic would be temporary and limited to the duration of the construction schedule. After construction is complete, no changes to existing transportation patterns would occur because the pipeline would be located underground, and no new operation and maintenance activities would be required for the project. The proposed project would not impede the long-term use of existing transit, roadway, bicycle, and pedestrian facilities, and would construct an access road that would be available for bicycle use. The proposed project would not require new operations beyond existing sewer operations; therefore, operation of the proposed project would not result in additional vehicle use inconsistent with the City's or SCAG's adopted policies, plans, or programs supporting transit, roadway, bicycle, and pedestrian facilities. Therefore, impacts would be less than significant.

LESS THAN SIGNIFICANT IMPACT

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

CEQA Guidelines Section 15064.3(b) identifies criteria for evaluating transportation impacts. Specifically, the guidelines state VMT exceeding an applicable threshold of significance may indicate a significant impact. According to Section 15064.3(b)(3) of the *CEQA Guidelines*, a lead agency may include a qualitative analysis of operational and construction traffic. A VMT calculation is typically conducted on a daily or annual basis, for long-range planning purposes. Increases in VMT from construction would be short-term, minimal, and temporary. Project operation would not involve any new maintenance activities compared to existing conditions. Therefore, operational VMT in the project area would not be increased. In addition, as stated in the City of Santa Clarita's Transportation Analysis Updates guidance, projects that generate less than 110 daily trips are presumed to result in less than significant VMT impacts absent substantial evidence to the contrary (City of Santa Clarita 2020). Project construction would not result in substantial vehicle trips and would stay below the 110 trips per day threshold. The project would involve no new operation and maintenance activities compared to existing conditions. Therefore, the project would not generate any operational VMT. Impacts associated with VMT would be less than significant.

LESS THAN SIGNIFICANT IMPACT

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

The proposed project would include the construction of an access road generally overlapping the proposed pipeline and two pre-cast bridges. The access road and bridges would be utilized by SCV Water staff for maintenance activities and would be used by the public as a bicycle route. No sharp curves or dangerous intersections with existing roads are proposed. The proposed project would not introduce incompatible uses, such as farm equipment, onto roadways. Therefore, the proposed project would not substantially increase hazards due to a geometric design feature or incompatible uses. No impact would occur.

NO IMPACT

d. Would the project result in inadequate emergency access?

Construction activities would require a temporary one-lane closure along northbound Sand Canyon Road. However, pursuant to Santa Clarita Valley Water Agency's standard construction practices, a traffic control plan would be submitted to the City for review and approval. Traffic control measures would be implemented during lane closures, including flaggers at both ends. Although construction of the proposed project would temporarily increase heavy vehicle trips to and from the project site, these trips would be localized and temporary and would not have potential to impede emergency access at the project site, as construction equipment staging and worker parking would occur adjacent to Vista Canyon Boulevard and the northern bank of the Santa Clara River. Operational activities associated with the proposed project would not be greater than existing maintenance and therefore would not result in deficiencies in emergency access beyond existing conditions. Therefore, the proposed project would not result in inadequate emergency access. This impact would be less than significant.

LESS THAN SIGNIFICANT IMPACT

18 Tribal Cultural Resources

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

PRC Section 21074 (a)(1)(A-B) defines tribal cultural resources as "sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American tribe" and is:

1. Listed or eligible for listing in the CRHR, or in a local register of historical resources as defined in PRC Section 5020.1(k), or
2. A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in PRC Section 5024.1(c). In applying these criteria, the lead agency shall consider the significance of the resource to a California Native American tribe.

Assembly Bill (AB) 52 also establishes a formal consultation process for California tribes regarding those resources. Under AB 52, lead agencies are required to "begin consultation with a California Native American tribe that is traditionally and culturally affiliated with the geographic area of the

proposed project." Native American tribes to be included in the process are those that have requested notice of projects proposed within the jurisdiction of the lead agency. The consultation process must be completed before a CEQA document can be adopted/certified.

The NAHC was contacted to request a SLF search on January 23, 2023. On January 27, 2023, the NAHC stated the results of the SLF search were negative.

As part of AB 52 consultation, SCV Water sent consultation letters to the Fernandeño Tataviam Band of Mission Indians (FBTMI), the Gabrieleño Band of Mission Indians – Kizh Nation, and the San Gabriel Band of Mission Indians, the Torres Martinez Desert Cahuilla Indians on February 1, 2024. FBTMI responded with a request for consultation on February 12, 2024. SCV Water met with FBTMI on February 27, 2024.

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

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

No tribal cultural resources have been identified with the project site. The NAHC SLF search was returned with negative results, meaning the NAHC did not identify potentially sensitive tribal cultural resources within the United States Geological Service quadrangle in which the project site is located. As outlined in Environmental Checklist Section 5, *Cultural Resources*, Mitigation Measure CUL-3 requires implementation of procedures for the unanticipated discovery of archaeological resources, including those of Native American origin. In addition, Mitigation Measures TCR-1, TCR-2, and TCR-3 have been included in response to the FTBMI's request for Native American monitoring of ground-disturbing activities, unanticipated discovery of tribal cultural resources, and compliance with existing regulations outlined in California Health and Safety Code Section 7050.5 should human remains be inadvertently discovered during construction, respectively. With implementation of Mitigation Measures CUL-3, TCR-1, TCR-2, and TCR-3, the project would not cause a substantial adverse change in the significance of a tribal cultural resource, and impacts would be less than significant with mitigation incorporated.

Mitigation Measures

TCR-1 Tribal Cultural Resources Construction Monitoring

SCV Water shall retain a professional Tribal Monitor procured by the Fernandeño Tataviam Band of Mission Indians to observe all ground-disturbing activities including, but not limited to, clearing, grubbing, grading, excavating, digging, trenching, plowing, drilling, tunneling, quarrying, leveling, driving posts, auguring, blasting, stripping topsoil or similar activity. The Tribal Monitor does not need to observe pipe placement or backfill. Tribal Monitoring Services will continue until confirmation is received from SCV Water, in writing, that all scheduled activities pertaining to Tribal Monitoring are complete. If the project's scheduled activities require the Tribal Monitor to leave the project for a period of time and return, confirmation shall be submitted to the Tribe by SCV Water, in writing, upon completion of each set of scheduled activities and 5 days' notice (if possible) shall

be submitted to the Tribe by SCV Water, in writing, prior to the start of each set of scheduled activities. If cultural resources are encountered, the Tribal Monitor will have the authority to request that ground-disturbing activities cease within 60 feet of discovery and a qualified archaeologist meeting Secretary of Interior standards retained by SCV Water as well as the Tribal Monitor shall assess the find.

TCR-2 Unanticipated Discovery of Tribal Cultural Resources

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

TCR-3 Unanticipated Discovery of Human Remains

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

Inadvertent discoveries of human remains and/or funerary object(s) are subject to California State Health and Safety Code Section 7050.5, and the subsequent disposition of those discoveries shall be decided by the Most Likely Descendant (MLD), as determined by the Native American Heritage Commission (NAHC), should those findings be determined as Native American in origin.

Significance After Mitigation

Implementation of Mitigation Measures CUL-3, and TCR-1 through TCR-3 during ground-disturbing activities would reduce potential tribal cultural resource impacts to a less-than-significant level by implementing a Tribal Monitor, consultation with FTBMI, and procedures for the unanticipated discovery of human remains.

LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED

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19 Utilities and Service Systems

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

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

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

Water

The proposed project would involve the construction and operation of a sewer pipeline. The proposed project does not include or require the construction of additional water infrastructure and would not cause direct or indirect growth which could increase water demand. Therefore, the proposed project would not require or result in the relocation or construction of new or expanded water facilities. No impact would occur.

Wastewater

The proposed project would involve the construction and operation of a sewer pipeline, the environmental effects of which are evaluated within this IS-MND. The purpose of the proposed sewer pipeline is to relocate the existing sewer line from within the flow path of the Santa Clara River into the adjacent overbank, rather than increase wastewater treatment capacity. No additional customers would be served as a result of the proposed project. Therefore, the proposed project would not require or result in the relocation or construction of new or expanded wastewater facilities. No impact would occur.

Stormwater Drainage

As discussed in Environmental Checklist Section 10, *Hydrology and Water Quality*, the proposed project would generally preserve existing drainage patterns on-site, which convey stormwater to the Santa Clara River. The increase of impervious surfaces from the proposed project would be nominal, and stormwater runoff from the project site would be discharged to the Santa Clara River. Potential dewatering activities would not require substantial discharge of stormwater such that additional stormwater infrastructure would be required. Therefore, the proposed project would not require or result in the relocation or construction of new or expanded stormwater facilities. No impact would occur.

Electric Power and Natural Gas

The proposed project is a sewer pipeline that would not require additional electricity consumption beyond existing operations. The proposed project would not require natural gas service. Therefore, the proposed project would not require or result in the relocation or construction of new or expanded electric or natural gas facilities. No impact would occur.

Telecommunications

The proposed sewer pipeline would not require telecommunications to operate. Therefore, the proposed project would not require or result in the relocation or construction of new or expanded telecommunications facilities. No impact would occur.

NO IMPACT

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

As described in the Santa Clarita Valley Water Agency's Urban Water Management Plan, Santa Clarita would be provided adequate water supplies to meet demand through 2050 (Santa Clarita Valley Water Agency 2021). During construction, the proposed project would require the temporary and minimal use of water during construction for dust suppression activities in areas of the project site where ground-disturbing activities would occur. During operation, the proposed project would

not increase the demand for water because no structures that would directly or indirectly induce growth in Santa Clarita would be constructed. Accordingly, the proposed project would have sufficient water supplies available, and no impact would occur.

NO IMPACT

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

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

Construction activities may temporarily generate solid waste, including soils and construction waste, which would be disposed of in accordance with all applicable federal, state, and local statutes and regulations. Cut soil generated during construction, totaling approximately 2,400 cubic yards, is anticipated to be disposed of at Chiquita Canyon Sanitary Landfill. Chiquita Canyon Sanitary Landfill has a maximum permitted throughput of 12,000 tons per day and a remaining capacity of approximately 60,408,000 cubic yards (California Department of Resources Recycling and Recovery 2023). Due to the temporary nature of construction and minimal amount of construction waste anticipated to require disposal, the proposed project would not generate quantities of solid waste that would account for a substantial percentage of the total daily regional permitted capacity available at the Chiquita Canyon Sanitary Landfill. Furthermore, at least 50 percent of solid waste would be diverted from disposal in landfills, pursuant to AB 939. Once operational, the proposed project would not generate solid waste. Therefore, solid waste generated during construction activities would not exceed the available capacity of the landfills serving Santa Clarita, and the proposed project would comply with solid waste reduction regulations. These impacts would be less than significant.

LESS THAN SIGNIFICANT IMPACT

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20 Wildfire

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:				
a. Substantially impair an adopted emergency response plan or emergency evacuation plan?	☐	☐	■	☐
b. Due to slope, prevailing winds, and other factors, exacerbate wildfire risks and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?	☐	☐	■	☐
c. Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?	☐	☐	■	☐
d. Expose people or structures to significant risks, including downslopes or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?	☐	☐	■	☐

The project site is not within a Very High Fire Hazard Severity Zone but is located approximately one mile west of the nearest Very High Fire Hazard Severity Zone (CAL FIRE 2024).

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

The City of Santa Clarita's and SCV Water's LHMPs set forth hazard mitigation strategies related to a variety of threats, including wildfire. Strategies towards mitigating wildfire included in the City's LHMP include working with the Los Angeles Fire Department to enhance emergency service and increase the efficiency of response times, enhancing outreach and education programs on wildfires, encouraging and increasing communication among wildland/urban interface property owners, and enhancing the City's ability to manage wildfire events. Strategies towards mitigating the impacts of wildfire included in SCV Water's LHMP include vegetation clearance, providing regional emergency water storage, and fostering enhanced communication with local and regional fire departments.

As discussed in Environmental Checklist Section 9, *Hazards and Hazardous Materials*, the proposed project would not conflict with either of the LHMPs. As discussed in Environmental Checklist Section 17, *Transportation*, the proposed project would not impede access to emergency services, and pursuant to Santa Clarita Valley Water Agency's standard construction practices, a traffic control plan would be submitted to the City for review and approval. Traffic control measures would be implemented during lane closures, including flaggers at both ends. Although construction of the project would increase heavy vehicle trips to and from the project site, such effects would be localized and temporary, and would not impede emergency access in the project area. Consequently, the proposed project would not substantially impair an adopted emergency response plan or emergency evacuation plan in fire hazard areas. This impact would be less than significant.

LESS THAN SIGNIFICANT IMPACT

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

As discussed in Environmental Checklist Section 9, *Hazards and Hazardous Materials*, project operation would not involve potentially flammable activities. However, the wildland-urban interface could pose the potential for incidents of fire during project construction. Potential ignition sources may include sparks from exhaust pipes, discarded cigarette butts, contact of mufflers with dry grass, other sources of sparks or flame, and spills or releases of flammable materials such as gasoline. Compliance with applicable federal and State laws and regulations related to the proper use, storage, and transport of hazardous materials would reduce the risk of wildfire ignition from the use of hazardous materials during construction activities. Therefore, impacts related to wildland fires during project construction would be less than significant.

LESS THAN SIGNIFICANT IMPACT

c. If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?

d. If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project expose people or structures to significant risks, including downslopes or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?

The proposed project consists of the construction and operation of a sewer pipeline. As discussed in Environmental Checklist Section 19, *Utilities and Service Systems*, the proposed project would not result in the relocation or construction of new or expanded water, wastewater treatment or stormwater drainage, electric power, natural gas, or telecommunications facilities beyond the pipeline alignment evaluated in this analysis. The proposed project would not include fuel breaks, emergency water sources, power lines, or other aboveground utilities that would exacerbate fire risk or result in temporary or ongoing impacts to the environment. While the proposed project does include a paved access road, this road would not include associated utilities or other components which could exacerbate fire risk. Furthermore, the proposed project does not include habitable structures and as described in Environmental Checklist Section 7, *Geology and Soils*, the project site

is not in an area susceptible to landslides. The proposed project would include the construction of two pre-cast bridges; however, as described in Environmental Checklist Section 10, *Hydrology and Water Quality*, the pre-cast bridges would not result in substantial flooding as the bridges would be located above the flood hazard zones identified within the Santa Clara River.

For the reasons described above, the proposed project would have a less than significant impact related to exposure of people to significant risks as a result of runoff, post-fire slope instability, or drainage changes.

LESS THAN SIGNIFICANT IMPACT

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21 Mandatory Findings of Significance

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

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

Potential impacts to biological resources are addressed in Environmental Checklist Section 4, *Biological Resources*. As described therein, there is moderate to high potential for certain special-status wildlife species to occur on the project site, including six species of special concern: arroyo chub, arroyo toad, western spadefoot, California legless lizard, coastal whiptail, and coast horned lizard. However, the project site is limited in size, as compared to the total size of habitats supporting fish and wildlife species, and the project would only result in temporary impacts to special-status species during construction, as the proposed pipeline would be located underground

and would not affect any species during operation. Due to the local scale of the proposed project, the proposed project would not 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, or substantially reduce the number or restrict the range of a rare or endangered plant or animal. This impact would be less than significant.

As discussed in Environmental Checklist Section 5, *Cultural Resources*, the proposed project would not require disturbance of the historic-period cemetery or its immediate vicinity, and therefore the proposed project would not cause a substantial change in the significance of a historical resource. Project implementation would not impact known subsurface archaeological deposits, and SCV Water and the construction contractor for the proposed project would implement the standard procedures for evaluation, consultation, avoidance, and data recovery of unanticipated archaeological resources, if discovered during construction. Because the proposed project would not eliminate known important examples of the major periods of California history or prehistory, this impact would be less than significant.

LESS THAN SIGNIFICANT IMPACT

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

As described in the discussion of Environmental Checklist Sections 1 through 20, with respect to all environmental issues, the proposed project would not result in significant and unmitigable impacts to the environment. All anticipated impacts associated with project construction and operation would be either less than significant or less than significant with mitigation incorporated. This is largely due to the fact project construction activities would be temporary and project operation would result in minimal changes to the environmental baseline condition. Additionally, where it was determined the project would have no impact (i.e., agriculture and forestry resources, energy, land use and planning, mineral resources, population and housing, public services, and recreation) no cumulative impacts would be exacerbated as a result of the proposed project. In addition, certain resource areas (e.g., cultural resources, geology and soils, hazards and hazardous materials, and tribal cultural resources) are by their nature specific to a project location such that impacts at one location do not add to impacts at other locations, and therefore would not result in cumulative impacts.

Cumulatively considerable impacts could occur if the construction of other projects occurs at the same time as the proposed project and in the same vicinity, such that the effects of similar impacts of multiple projects combine to expose adjacent sensitive receptors to greater levels of impact than would occur under the proposed project. For example, if the construction of other projects in the area occurs at the same time as construction of the proposed project, potential impacts associated with noise and traffic to residents in the project area may be more substantial. There are two projects in proximity to the project site that could combine with the proposed project to result in cumulative construction-related impacts (City of Santa Clarita 2024):

- Sand Canyon Plaza, located approximately 0.20-mile north of the project site. This project involves the construction of 580 residential units, an assisted living facility, and a 140,000-square foot commercial center. This project is entitled by the City but has not yet been constructed.

- Vista Canyon Ranch, located approximately 0.15-mile south of the project site. This project involves the construction of 1,100 residential units; 950,000 square feet of commercial uses and parking; open space, parks, and trails; new transit stations; and a bridge. This project is currently under construction.

The project would result in no change to existing operations and maintenance activities at the project site and therefore would not contribute to cumulative impacts during operation, including long-term increases in waste use, wastewater generation, solid waste generation, or VMT. As discussed in Environmental Checklist Sections 3, *Air Quality*, and 8, *Greenhouse Gas Emissions*, the significance of project-specific air quality and GHG emissions impacts are dependent on a project's potential to contribute considerably to cumulative air quality and GHG emissions. Therefore, the potential for the project to result in cumulative air quality and GHG emissions impacts are evaluated in Environmental Checklist Sections 3 and 8. As discussed therein, the proposed project would not generate cumulatively considerable criteria air pollutant emissions in excess of SCAQMD thresholds or GHG emissions that would conflict with applicable plans, policies, or regulations to reduce GHG emissions. Therefore, the proposed project's contribution to cumulative air quality and GHG emissions impacts would not be cumulatively considerable.

Overlapping project construction in the vicinity of the project site could generate cumulatively considerable construction noise and vibration impacts. However, the proposed project would implement Mitigation Measures NOI-1 and NOI-2 which would reduce the proposed project's construction noise and vibration in accordance with applicable regulatory standards. Therefore, the proposed project would not contribute considerably to potential cumulative noise impacts.

Construction of the proposed project in conjunction with Vista Canyon Ranch could result in a cumulative water quality impact in the event the cumulative amount of stormwater pollutants that enter the Santa Clara River result in impairment of the river. These cumulative projects would be required to adhere to the Stormwater Construction General Permit and implement an SWPPP and construction BMPs, as well as additional City requirements such as implementation of a Wet Weather Erosion Control Plan, which would reduce the generation of cumulative stormwater pollutants. With adherence to existing regulations to protect water quality, it is anticipated cumulative water quality impacts would be less than significant. Therefore, the proposed project would not contribute considerably to cumulative water quality impacts.

Similar to the proposed project, cumulative development could also result in impacts to biological resources and would be subject to similar regulatory requirements as the proposed project, including the federal Endangered Species Act, California Endangered Species Act, and Migratory Bird Treaty Act. These regulations are designed to protect individual species and their habitats. Cumulative projects would be required to abide by the provisions of these regulations and could potentially be subject to review from agencies including, but not limited to, CDFW and the United States Fish and Wildlife Service, to ensure potential impacts to species or habitat are minimized. However, existing regulatory requirements alone cannot guarantee species loss, habitat loss, or other impact to biological resources due to cumulative development. The proposed project would incorporate Mitigation Measures BIO-1 through BIO-11 to reduce potential impacts to special-status species, nesting birds, sensitive natural communities and riparian habitat, and the Santa Clara River to a less-than-significant level. As a result, the proposed project would not have a cumulatively considerable contribution to cumulative impacts on biological resources.

For the reasons discussed above, the proposed project would not have a cumulatively considerable contribution to cumulative impacts.

LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED

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

Adverse effects on human beings are typically associated with air quality, hazards and hazardous materials, and noise impacts. These impacts are addressed in Environmental Checklist Sections 3, *Air Quality*; 9, *Hazards and Hazardous Materials*; and 13, *Noise*. As discussed in detail in Environmental Checklist Section 3, the proposed project would have less than significant impacts on air quality. As discussed in detail in Environmental Checklist Sections 9 and 13 the proposed project would implement Mitigation Measures HAZ-1 through HAZ-3, NOI-1, and NOI-2 which would require implementation of a soil and groundwater management plan and subsequent soil remediation, if applicable, and implementation of noise reduction and vibration reduction measures. Implementation of these measures would reduce impacts hazards and noise impacts to a less-than-significant level. With incorporation of these mitigation measures, the proposed project would have a less-than-significant impact on human beings.

LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED

References

Bibliography

Bay Area Air Quality Management District (BAAQMD). 2023. 2022 CEQA Guidelines. April 20, 2023. https://www.baaqmd.gov/plans-and-climate/california-environmental-quality-act-ceqa/updated-ceqa-guidelines (accessed January 2024).

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

California Air Resources Board (CARB). 2005. Air Quality and Land Use Handbook: A Community Health Perspective. April 2005. https://www.arb.ca.gov/ch/handbook.pdf

_____. 2022a. Maps of State and Federal Area Designations. https://ww2.arb.ca.gov/resources/documents/maps-state-and-federal-area-designations

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

_____. 2023. "Overview Diesel Exhaust & Health" [webpage]. N.d. https://ww2.arb.ca.gov/resources/overview-diesel-exhaust-and-health

California Department of Conservation (DOC). 2022a. California Important Farmland Finder. https://maps.conservation.ca.gov/DLRP/CIFF/ (accessed September 2023).

_____. 2022b. California Williamson Act Enrollment Finder. https://maps.conservation.ca.gov/dlrp/WilliamsonAct/ (accessed September 2023).

_____. 2021. Earthquake Zones of Required Investigation. https://maps.conservation.ca.gov/cgs/EQZApp/app/ (accessed September 2023).

California Department of Finance. 2023. Table 2: E-5 City/County Population and Housing Estimates, 1/1/2023. https://dof.ca.gov/Forecasting/Demographics/Estimates/e-5-population-and-housing-estimates-for-cities-counties-and-the-state-2020-2023/ (accessed December 2023).

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

California Department of Resources, Recycling, and Recovery. 2023. Chiquita Canyon Sanitary Landfill (19-AA-0052). https://www2.calrecycle.ca.gov/SolidWaste/SiteActivity/Details/3574?siteID=1037 (accessed December 2023).

California Department of Toxic Substances. 2023. EnviroStor. https://www.envirostor.dtsc.ca.gov/public/map/?myaddress=Envirostor (accessed December 2023).

California Department of Transportation (Caltrans). 2018. California State Scenic Highway System Map. https://caltrans.maps.arcgis.com/apps/webappviewer/index.html?id=465dfd3d807c46cc8e8057116f1aacaa (accessed September 2023).

_____. 2020. Transportation and Construction Vibration Guidance Manual (CT-HWANP-RT-20-365.01.01). April. https://dot.ca.gov/-/media/dot-media/programs/environmental-analysis/documents/env/tcvgm-apr2020-a11y.pdf (accessed January 2023).

California Department of Water Resources (DWR). 2024a. Groundwater Level Report Station 344202N1184268W001. https://wdl.water.ca.gov/WaterDataLibrary/GroundwaterBrowseData.aspx?LocalWellNumber=&StationId=57829&StateWellNumber=04N15W23C005S&SelectedCounties=&SiteCode=344202N1184268W001&SelectedGWBasins= (accessed January 2024).

_____. 2024b. SGMA Basin Prioritization Dashboard. https://gis.water.ca.gov/app/bp-dashboard/final/ (accessed February 2024).

_____. 2024c. Dam Breach Inundation Map Web Publisher. https://fmds.water.ca.gov/webgis/?appid=dam_prototype_v2 (accessed January 2024).

California Environmental Protection Agency. 2023a. List of "Active" Cease and Desist Orders (CDO) and Cleanup and Abatement Orders (CAO) from Regional Water Quality Control Boards. https://calepa.ca.gov/sitecleanup/corteselist/ (accessed December 2023).

_____. 2023b. List of Solid Waste Disposal Sites with Waste Constituents Above Hazardous Waste Levels Outside the Waste Management Unit. https://calepa.ca.gov/wp-content/uploads/sites/6/2016/10/SiteCleanup-CorteseList-CurrentList.pdf (accessed December 2023).

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

California Geological Survey. 2002. Note 36 – California Geomorphic Provinces. https://www.conservation.ca.gov/cgs/Documents/CGS-Note-36.pdf

Campbell, R.H., C.J. Wills, P.J. Irvine, and B.J. Swanson. 2016. Preliminary geologic map of the Los Angeles 30' x 60' quadrangle, California: version 2.1. [map.] California Geological Survey. Preliminary Geological Maps PGM-13-06.2016, scale 1:100,000.

Federal Emergency Management Agency. 2024. National Flood Hazard Layer Viewer. https://hazards-fema.maps.arcgis.com/apps/webappviewer/index.html?id=8b0adb51996444d4879338b5529aa9cd (accessed January 2024).

Federal Highway Administration (FHWA). 2011. Highway Traffic Noise: Analysis and Abatement Guidance (FHWA-HEP-10-025). https://www.fhwa.dot.gov/environment/noise/regulations_and_guidance/analysis_and_abatement_guidance/revguidance.pdf (accessed April 2023).

Federal Transit Administration (FTA). 2018. Transit Noise and Vibration Impact Assessment Manual. https://www.transit.dot.gov/sites/fta.dot.gov/files/docs/research-innovation/118131/transit-noise-and-vibration-impact-assessment-manual-fta-report-no-0123_0.pdf (accessed January 2023).

Intergovernmental Panel on Climate Change (IPCC). 2021. Climate Change 2021: The Physical Science Basis. Contribution of Working Group I to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change [Masson-Delmotte, V., P. Zhai, A. Pirani, S. L. Connors, C. Péan, S. Berger, N. Caud, Y. Chen, L. Goldfarb, M. I. Gomis, M. Huang, K. Leitzell, E. Lonnoy, J.B.R. Matthews, T. K. Maycock, T. Waterfield, O. Yelekçi, R. Yu and B. Zhou (eds.)] Cambridge University Press. https://www.ipcc.ch/report/ar6/wg1/downloads/report/IPCC_AR6_WGI_Full_Report.pdf

Jefferson, G.T. 2010. A catalogue of late Quaternary vertebrates from California. *Natural History Museum of Los Angeles County Technical Report*. Volume 7, pp. 5-172.

Los Angeles County Airport Land Use Commission. 2003. Agua Dulce Airport Influence Area. https://case.planning.lacounty.gov/assets/upl/project/aluc_airport-agua-dulce.pdf (accessed February 2024)/

Los Angeles Regional Water Quality Control Board. 2024. California 2018 Integrated Report. https://gispublic.waterboards.ca.gov/portal/apps/webappviewer/index.html?id=e2def63ccef54eedbee4ad726ab1552c (accessed January 2024).

_____. 2020. Basin Plan for the Coastal Watersheds of Los Angeles and Ventura Counties. https://www.waterboards.ca.gov/losangeles/water_issues/programs/basin_plan/basin_plan_documentation.html (accessed January 2024).

McIver, IR. 2012. Ground vibration from road construction. May.

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

Paleobiology Database (PBDB). 2024. The Paleobiology Database, http://paleobiodb.org/ (accessed February 2024).

Santa Clarita, City of. 2011. Conservation and Open Space Element. https://www.codepublishing.com/CA/SantaClarita/html/SantaClaritaGP/6%20-%20Conservation%20and%20Open%20Space%20Element.pdf (accessed September 2023).

_____. 2020. Transportation Analysis Updates in Santa Clarita. May 19, 2020.

_____. 2021. 2021 Santa Clarita Local Hazard Mitigation Plan. https://santaclarita.gov/wp-content/uploads/sites/42/migration/2021%20SCHMP_%20Approved.pdf (accessed December 2023).

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

Santa Clarita Valley Water Agency. 2023. Local Hazard Mitigation Plan. https://www.yourscvwater.com/sites/default/files/SCVWA/your-water/plans-and-reports/lhmp/SCV-Water-Local-Hazard-Mitigation-Plan-FINAL-FEMA-APPROVED-Jan-14-2023.pdf (accessed February 2024).

_____. 2021. 2020 Urban Water Management Plan. https://www.yourscvwater.com/sites/default/files/SCVWA/SCVWA-2020-UWMP-Volume-I_FINAL.pdf (accessed December 2023).

Society of Vertebrate Paleontology (SVP). 2010. Standard Procedures for the Assessment and Mitigation of Adverse Impacts to Paleontological Resources. https://vertpaleo.org/wp-content/uploads/2021/01/SVP_Impact_Mitigation_Guidelines-1.pdf (accessed February 2024).

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

_____. 2005. Guidance Document for Addressing Air Quality Issues in General Plans and Local Planning. Adopted May 6, 2005. https://www.aqmd.gov/docs/default-source/planning/air-quality-guidance/complete-guidance-document.pdf

_____. 2008a. Final Localized Significance Threshold Methodology. http://www.aqmd.gov/docs/default-source/ceqa/handbook/localized-significance-thresholds/final-lst-methodology-document.pdf.

_____. 2008b. Draft Guidance Document – Interim CEQA Greenhouse Gas (GHG) Significance Threshold. October 2008. http://www.aqmd.gov/docs/default-source/ceqa/handbook/greenhouse-gases-(ghg)-ceqa-significance-thresholds/ghgattachmente.pdf

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

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

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

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

State Water Resources Control Board (SWRCB). 2023a. GeoTracker. https://geotracker.waterboards.ca.gov/map/?CMD=runreport&myaddress=Santa+Clarita (accessed December 2023).

_____. 2023b. Shell Service Station (T060373172). https://geotracker.waterboards.ca.gov/profile_report.asp?global_id=T060373172 (accessed December 2023).

_____. 2023c. ARCO #6006 (T0603704535). https://geotracker.waterboards.ca.gov/profile_report.asp?global_id=T0603704535 (accessed December 2023).

_____. 2023d. Circle K SS (Former Mobil #18-LMQ) (T0603702307). https://geotracker.waterboards.ca.gov/profile_report.asp?global_id=T0603702307 (accessed December 2023).

United States Department of Agriculture (USDA). 2017. National soil survey handbook, title 430-VI. https://directives.sc.egov.usda.gov (accessed January 2024).

_____. 2024. Web Soil Survey. https://websoilsurvey.nrcs.usda.gov/app/WebSoilSurvey.aspx (accessed February 2024).

University of California Museum of Paleontology (UCMP). 2024. UCMP online database specimen search portal, http://ucmpdb.berkeley.edu/ (accessed February 2024).

List of Preparers

Rincon Consultants, Inc. prepared this IS-MND under contract to the Santa Clarita Valley Water Agency. Persons involved in data gathering analysis, project management, and quality control are listed below.

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Nichole Yee, Environmental Planner
Kyle Pritchard, Noise Specialist
Abby Robles, GIS Analyst

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Appendix A

Site Plans

BENCHMARK: L 1668
DESCRIPTION: CS MON IN WELL 250MM DN @ PI 600MM EAST OF CENTERLINE
LOCATION: SAND CANYON ROAD AND 161M NORTH OF LIVE OAK SPRINGS CANYON ROAD 8.2M NORTHEAST OF POWER POLE #1155006E MKD (PI 24)
ELEVATION: 1586.011 DATUM: NAVD 88 (1995 ADJ.)

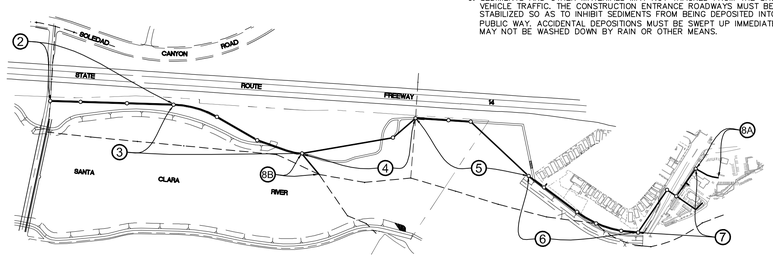
STORMWATER POLLUTION PLAN NOTES

A. NOTES

1. ERODED SEDIMENTS AND OTHER POLLUTANTS MUST BE RETAINED ON SITE AND MAY NOT BE TRANSPORTED FROM THE SITE VIA SHEETFLOW, SWALES, AREA DRAINS, NATURAL DRAINAGE COURSES OR WIND.
2. STOCKPILES OF EARTH AND OTHER CONSTRUCTION RELATED MATERIALS MUST BE PROTECTED FROM BEING TRANSPORTED FROM THE SITE BY THE FORCES OF WIND OR WATER.
3. FUELS, OILS, SOLVENTS, AND OTHER TOXIC MATERIALS MUST BE STORED IN ACCORDANCE WITH THEIR LISTING AND MAY NOT CONTAMINATE THE SOIL AND SURFACE WATERS. ALL APPROVED STORAGE CONTAINERS ARE TO BE PROTECTED FROM THE WEATHER. SPILLS MUST BE CLEANED UP IMMEDIATELY AND DISPOSED OF IN A PROPER MANNER. SPILLS MAY NOT BE WASHED INTO THE DRAINAGE SYSTEM.
4. EXCESS OR WASTE CONCRETE MAY NOT BE WASHED INTO THE PUBLIC WAY OR ANY OTHER DRAINAGE SYSTEM. PROVISIONS SHALL BE MADE TO RETAIN CONCRETE WASTES ON SITE UNTIL THEY CAN BE DISPOSED OF AS SOLID WASTE.
5. TRASH AND CONSTRUCTION RELATED SOLID WASTES MUST BE DEPOSITED INTO A COVERED RECEPTACLE TO PREVENT CONTAMINATION OF RAINWATER AND DISPERSAL BY WIND.
6. SEDIMENTS AND OTHER MATERIALS MAY NOT TRACKED FROM THE SITE BY VEHICLE TRAFFIC. THE CONSTRUCTION ENTRANCE ROADWAYS MUST BE STABILIZED SO AS TO INHIBIT SEDIMENTS FROM BEING DEPOSITED INTO THE PUBLIC WAY. ACCIDENTAL DEPOSITIONS MUST BE SWEPT UP IMMEDIATELY AND MAY NOT BE WASHED DOWN BY RAIN OR OTHER MEANS.
7. ANY SLOPES WITH DISTURBED SOILS DENUDED OF VEGETATION MUST BE STABILIZED SO AS TO INHIBIT EROSION BY WIND AND WATER.
8. THE FOLLOWING BMPs AS OUTLINED IN, BUT NOT LIMITED TO, THE "BEST MANAGEMENT PRACTICE HANDBOOK, CALIFORNIA STORMWATER QUALITY TASK FORCE, SACRAMENTO, CALIFORNIA 1993," OR THE LATEST REVISED EDITION, MAY APPLY DURING THE CONSTRUCTION OF THIS PROJECT (ADDITIONAL MEASURES MAY BE REQUIRED IF DEEMED APPROPRIATE BY COUNTY INSPECTORS):

BMP NOTES:

CA001 – DEWATERING OPERATIONS
CA002 – PAVING OPERATIONS
CA003 – STRUCTURE CONSTRUCTION AND PAINTING
CA010 – MATERIAL DELIVERY AND STORAGE
CA011 – MATERIAL USE
CA012 – SPILL PREVENTION CONTROL
CA020 – SOLID WASTE MANAGEMENT
CA021 – HAZARDOUS WASTE MANAGEMENT
CA022 – CONTAMINATED SOIL MANAGEMENT
CA023 – CONCRETE WASTE MANAGEMENT
CA030 – VEHICLE AND EQUIPMENT CLEANING
CA031 – VEHICLE AND EQUIPMENT FUELING
CA032 – VEHICLE AND EQUIPMENT MAINTENANCE
CA040 – EMPLOYEE/SUBCONTRACTOR TRAINING
ESC01 – SCHEDULING
ESC02 – PRESERVATION OF EXISTING VEGETATION
ESC21 – DUST CONTROLS
ESC22 – TEMPORARY STREAM CROSSING
ESC23 – CONSTRUCTION ROAD STABILIZATION
ESC24 – STABILIZED CONSTRUCTION ENTRANCE
ESC40 – OUTLET PROTECTION
ESC41 – CHECK DAMS
ESC51 – STRAW BALE BARRIER
ESC52 – SAND BAG BARRIER
ESC53 – BRUSH OR ROCK FILTER
ESC54 – STORM DRAIN INLET PROTECTION



INDEX MAP

SCALE: 1" = 500' INDEX 1334 & 1335
P.C. 06-11 TR. NO.S 69164
THOMAS GUIDE PAGE: 4551-A3 & B3 (2003)

NOTES: ○ CIRCLED NUMBERS INDICATE PAGE NUMBERS. ALL MAINLINE SANITARY SEWERS ARE WITHIN THE SANITARY SEWER EASEMENT

CITY OF SANTA CLARITA
APPROVED FOR CONSTRUCTION

ROBERT G. NEWMAN, DIRECTOR OF PUBLIC WORKS — DATE

PLAN CHECKER — DATE

NOTES:
"PRIOR TO ACCEPTANCE OF ANY SANITARY SEWER LINE BY THE CITY OF SANTA CLARITA AN INSPECTION OF SAID LINE BY VIDEO SHALL BE REQUIRED AT NO COST TO THE CITY. ALL NEW MAINLINE SEWERS SHALL BE VIDEO INSPECTED. THE CCTV INSPECTION SHALL BE COMPLETED BY A CERTIFIED NATIONAL ASSOCIATION OF SEWER SERVICE COMPANY (NASSCO) PIPELINE ASSESSMENT AND CERTIFICATION PROGRAM (PACP) TRAINED OPERATOR(S) USING ESTABLISHED PACP CODING AND OBSERVATIONS. THE RESULTS OF THE VIDEO INSPECTION SHALL BE RECORDED IN DVD FORMAT AND A COPY SHALL BE PROVIDED TO THE CITY AND LOS ANGELES COUNTY DEPARTMENT OF PUBLIC WORKS SEWER MAINTENANCE DIVISION, CONDITION ASSESSMENT UNIT, FOR REVIEW AND APPROVAL. ANY NOTED DEFICIENCIES SHALL BE CORRECTED, THEN FOLLOWED BY A POST CORRECTION VIDEO TO BE RESUBMITTED FOR REVIEW AND APPROVAL. THE DEVELOPER OF THE PROJECT SHALL NOTIFY THE CITY OF SANTA CLARITA IN WRITING AT LEAST 24 HOURS IN ADVANCE OF THE SCHEDULED DATE OF THE VIDEO INSPECTION.

BACKWATER VALVE REQUIRED FOR LOTS MARKED WITH BWV

NO.	REVISION	REVISED BY (REGISTERED ENGINEER'S SIGNATURE)	APPROVED BY LA COUNTY SMD APPROVAL	DATE	CITY APPROVAL	DATE

COUNTY OF LOS ANGELES
DEPARTMENT OF PUBLIC WORKS
CONSOLIDATED SEWER MAINTENANCE DISTRICT
REVIEWED FOR MAINTENANCE

REVIEWED BY _____ DATE _____

NOTICE TO CONTRACTOR:
MAINTAIN SEWER FLOW AT ALL TIMES DURING CONSTRUCTION.

EASEMENT NOTE:
A MINIMUM 10' SEWER EASEMENT TO BE DEDICATED TO THE CITY OF SANTA CLARITA OVER ALL PRIVATE DRIVES PER TRACT MAP 62322

PRIVATE CONTRACT SEWER GENERAL NOTES

THE FOLLOWING GENERAL NOTES ARE TO BE INCLUDED ON PAGE 1 OF ALL PRIVATE CONTRACT SEWER PLANS:

1. A SEWER CONSTRUCTION PERMIT SHALL BE OBTAINED AND A FEE PAID FOR CONSTRUCTION INSPECTION AND RECORD PLANS TO THE CITY OF SANTA CLARITA, 23920 VALENCIA BLVD, SUITE 300, AT LEAST 72 HOURS PRIOR TO STARTING WORK UNDER THIS PERMIT. COPIES OF ALL OTHER REQUIRED PERMITS, SUCH AS ROAD EXCAVATION, CALTRANS, ECT. MUST BE FILED WITH THE PERMIT APPLICATIONS.
2. THE CONTRACTOR SHALL NOTIFY THE PUBLIC WORKS INSPECTOR BY TELEPHONE AT (661) 255-4942 AT LEAST 24 HOURS BEFORE START OF WORK.
3. THE CONTRACTOR SHALL NOTIFY UNDERGROUND SERVICE ALERT (USA) AT (800) 227-2600 AT LEAST 14 DAYS PRIOR TO START OF WORK.
4. PRIOR TO ISSUANCE OF THE REQUIRED SEWER CONSTRUCTION PERMIT, THE CONTRACTOR SHALL OBTAIN AND FILE WITH THE CITY OF SANTA CLARITA, COPIES OF A PERMIT TO EXCAVATE IN CITY STREETS AND A PERMIT FOR EXCAVATION AND TRENCHES FROM THE STATE OF CALIFORNIA DIVISION OF INDUSTRIAL SAFETY, AND A CERTIFICATE OF WORKER'S COMPENSATION INSURANCE WITH THE CITY OF SANTA CLARITA NAMED AS THE CERTIFICATE HOLDER TO BE NOTIFIED 30 DAYS PRIOR TO CANCELLATION OF POLICY.
5. IF WORK IS DONE ON A STATE HIGHWAY, A PERMIT MUST BE OBTAINED FROM THE STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION, 120 SOUTH SPRING STREET, LOS ANGELES, CALIFORNIA.
6. APPROVAL OF THIS PLAN BY THE CITY OF SANTA CLARITA DOES NOT CONSTITUTE A REPRESENTATION AS TO ACCURACY OF THE LOCATION OF OR THE EXISTENCE OR NON-EXISTENCE OF ANY UNDERGROUND UTILITY PIPE OR STRUCTURE WITHIN THE LIMITS OF THIS PROJECT. THIS NOTE APPLIES TO ALL PAGES.
7. THE EXISTENCE AND LOCATION OF ANY UNDERGROUND UTILITY PIPES OR STRUCTURES SHOWN ON THESE PLANS ARE OBTAINED BY A SEARCH OF THE AVAILABLE RECORDS.
8. ALL WORK SHALL BE IN ACCORDANCE WITH THE LATEST APPROVED EDITION OF THE "STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION", INCLUDING SUPPLEMENTS AND THE LATEST "SPECIAL PROVISIONS FOR THE CONSTRUCTION OF SANITARY SEWER" AND SHALL BE PROSECUTED ONLY IN THE PRESENCE OF THE CITY OF SANTA CLARITA.
9. THE CONTRACTOR'S ATTENTION IS DIRECTED TO SECTION 7-10.4.1 OF THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTIO IN REGARD TO SAFETY ORDERS AND SHALL CONFORM TO THE "MINIMUM PUBLIC SAFETY REQUIREMENT FOR OPEN EXCAVATION" AS SHOWN ON LOS ANGELES DEPARTMENT OF PUBLIC WORKS' STANDARD PLAN 6008-0.
10. ELEVATIONS ARE IN FEET ABOVE U.S.C. & G.S. SEA LEVEL DATUM OF 1929.
11. NO REVISIONS SHALL BE MADE IN THESE PLANS WITHOUT THE APPROVAL OF THE CITY ENGINEER.
12. NO REPRESENTATIVE OF THE CITY OF SANTA CLARITA WILL SURVEY OR LAY OUT ANY PORTION OF THE WORK.
13. GRADES TO WHICH THIS IMPROVEMENT IS TO BE CONSTRUCTED ARE SHOWN ON PLANS AND PROFILES. GRADE POINTS FOR TOP OF CURBS, CENTERLINE OF STREETS, OR CENTERLINE OF ALLEYS, ARE SHOWN BY CIRCLES ON PROFILES AT ALL POINTS BETWEEN SAID DESIGNED POINTS. THE GRADE SHALL BE ESTABLISHED SO AS TO CONFORM TO A STRAIGHT LINE DRAWN BETWEEN SAID DESIGN POINTS.
14. THE PRIVATE ENGINEER SHALL FURNISH THE CITY OF SANTA CLARITA WITH GRADE SHEETS AND STATIONING FOR ALL HOUSE LATERALS AND "Y" OR "T" BRANCHES AND SHALL PROVIDE STAKES FOR THEM AT THEIR PROPER LOCATIONS WITH STATIONING PLAINLY MARKED. ALL HOUSE LATERALS SHALL BE CONSTRUCTED IN A STRAIGHT ALIGNMENT AT RIGHT ANGLES FROM THE MAIN LINE SEWER EXCEPT AS SHOWN ON THE PLANS. HOUSE LATERALS FROM CHIMNEYS SHALL NOT HAVE AN ANGLE OF LESS THAN 45 DEGREES WITH THE M.L. SEWER. ANY CHANGE IN ALIGNMENT SHALL BE REQUESTED IN WRITING BY THE PRIVATE ENGINEER.
15. THE PRIVATE ENGINEER SHALL FURNISH THE HOUSE LATERAL DEPTH AT THE PROPERTY LINE BELOW THE TOP OF CURB ELEVATION FOR EACH HOUSE LATERAL ON THE GRADE SHEET.

COUNTY SANITATION DISTRICTS (CSD) NOTES:

1. NO CONNECTION FOR THE DISPOSAL OF INDUSTRIAL WASTES SHALL BE MADE TO SEWERS SHOWN ON THESE DRAWINGS UNTIL A PERMIT FOR INDUSTRIAL WASTEWATER DISCHARGE HAS BEEN ISSUED BY CSD FOR SAID CONNECTION.
2. BEFORE BREAKING INTO A CSD SEWER OR MANHOLE, AND PRIOR TO FINAL ACCEPTANCE OF THE PROJECT, A CSD INSPECTOR SHALL BE NOTIFIED BY TELEPHONE AT (661) 729-5320 OR (562) 908-4288, EXT. 6318 SO THAT REQUIRED INSPECTION CAN BE MADE.

CONSTRUCTION NOTES

1. THE CONTRACTOR SHALL PROVIDE SURVEY STAKES ON THE PROPERTY LINE OR PROPERTY LINES PRODUCED AT RIGHT ANGLES TO THE SEWER LINE AT THE CENTERLINE OF EACH MANHOLE.
2. VITRIFIED CLAY PIPE JOINTS SHALL BE TYPE "D" OR "G" IN ACCORDANCE WITH "STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION" SECTION 208-2.
3. IF A POWERPOLE IS WITHIN THREE FEET OF THE SEWER, THE SEWER SHALL BE ENCASED PER LACDPW STANDARD PLAN 2023-1, CASE II, TWO FEET ON EACH SIDE FROM THE POINT OF INTERFERENCE.
4. ALL JOINTS BETWEEN CAST IRON PIPE AND VITRIFIED CLAY SHALL BE MADE WITH A RUBBER SLEEVE JOINT, TYPE "D" (WITH BUSHING IF NECESSARY) PER "STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION" SECTION 208-2.
5. HOUSE LATERALS TO BE CONSTRUCTED WITH INVERTS AT THE PROPERTY LINE 6 FEET BELOW CURB GRADE EXCEPT AS NOTED.
6. ALL WYES AND/OR HOUSE LATERALS ARE TO BE LOCATED AT LEAST 5' APART AND WHEN POSSIBLE NOT CLOSER THAN 5' TO ANY MANHOLE PER LOS ANGELES COUNTY'S STANDARD.
7. WYE OR TEE BRANCHES MAY BE USED FOR CONNECTIONS TO THE MAINLINE SEWERS EXCEPT AS NOTED.
8. IF DURING THE COURSE OF CONSTRUCTION, IT IS DETERMINED THAT THERE IS LESS THAN FOUR FEET OF COVER OVER THE TOP OF A MAINLINE OR HOUSE LATERAL V.C.P. SEWER WHICH IS NOT INDICATED ON THE PLANS, THE PIPES SHALL BE ENCASED PER LOS ANGELES COUNTY STANDARD PLAN 2023-1, CASE II, UNLESS OTHERWISE APPROVED BY THE CITY ENGINEER.
9. REFER TO THE STANDARD DRAWING 2100-0, "DESIGN REQUIREMENTS FOR SANITARY SEWERES IN THE VICINITY OF PRESSURE WATER MAINS", AND COMPLY WITH THE REQUIREMENTS.
10. ALL STRUCTURES SHALL BE EITHER BRICK SEWER MANHOLES PER LOS ANGELES COUNTY APWA 203-0, PRECAST CONCRETE SEWER MANHOLES PER APWA 200-2, OR REINFORCED PRECAST CONCRETE MANHOLE PER LACDPW STANDARD PLAN 2023-1, EXCEPT AS NOTED.
11. RESURFACE ALL TRENCHES WITHIN PAVED AREAS TO MEET THE CITY OF SANTA CLARITA, LOS ANGELES COUNTY PUBLIC WORKS OR CALIFORNIA STATE HIGHWAY REQUIREMENTS IN ACCORDANCE WITH THE PERMITS.
12. FULL COMPLIANCE WITH SECTION 306-1.3.4. OF THE "STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION" WILL BE REQUIRED FOR BACKFILL IN STREET, CERTIFICATION OF BACKFILL COMPACTION, AND SAND EQUIVALENTS BY A QUALIFIED CIVIL ENGINEER. THIS SHALL BE PROVIDED BY THE PERMITEE PRIOR TO THE ISSUANCE OF A CERTIFICATE OF PARTIAL ACCEPTANCE.
13. ALL BACKFILL AND FILLS OUTSIDE OF THE STREET RIGHT OF WAY SHALL BE COMPACTED TO 90% OF THE MAXIMUM DENSITY AS DETERMINED BY ASTM SOIL COMPACTION TEST D 1557-78 METHOD "D" UNLESS OTHERWISE SPECIFIED. THIS SHALL BE CERTIFIED BY A QUALIFIED CIVIL ENGINEER. THIS CERTIFICATION SHALL BE SUBMITTED TO THE CITY OF SANTA CLARITA PRIOR TO THE ACCEPTANCE OF THE WORK BY THE CITY.
14. MANHOLE TOPS IN UNIMPROVED RIGHT OF WAYS TO BE SIX INCHES ABOVE FINISHED GRADE.
15. SEWERS TO BE TESTED FOR LEAKAGE PER SECTION 306-1.4.4 OF THE "STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION".
16. AN APPROVED BACKWATER VALVE IS REQUIRED WHERE FINISHED FLOOR IS LOWER IN ELEVATION THAN THE TOP OF THE NEXT UPSTREAM MANHOLE.
17. DIRECT CONNECTION OF HOUSE LATERAL TO A MANHOLE IS PERMISSIBLE FOR TERMINAL MANHOLES WITH THE USE OF A 4 X 8 STUB.

PROFILE, ALIGNMENT, AND GRADE OF

SANITARY SEWERS

TO BE CONSTRUCTED IN

THE CITY OF SANTA CLARITA
SAND CANYON PC NO. XXX-XX
4 SHEETS: 8 PAGES
COUNTY OF LOS ANGELES CALIFORNIA

INDEX 1334 & 1335

SCALE: VERTICAL 1"=8'
HORIZONTAL 1"=40'

THE FOLLOWING LATEST REVISED STANDARD PLANS ON FILE IN THE OFFICE OF THE DEPARTMENT OF PUBLIC WORKS SHALL APPLY IN THE CONSTRUCTION OF THIS PROJECT

LEGEND	2000-0
MINIMUM PUBLIC SAFETY REQUIREMENTS	6008-1
BRICK MANHOLE	APWA 203-0
REINFORCED PRECAST CONCRETE MANHOLE	2003-2
STANDARD MANHOLE STEP	2015-1
BEDDING FOR SEWER PIPE	2021-1
GRADING AND ENCASEMENT	2023-1
WYE OR TEE SUPPORT	2024-1
ALLOWABLE TRENCH WIDTH	2027-1
LOCKING MANHOLE FRAME AND COVER	APWA 210-2
NON-REINFORCED PRECAST CONCRETE MANHOLE	APWA 200-2
SANITARY SEWER IN THE VICINITY OF PRESSURE WATER MAINS	2100-1

SANTA CLARITA VALLEY SANITATION DISTRICT
OF LOS ANGELES COUNTY, CALIFORNIA
GRACE ROBINSON CHAN-CHIEF ENGINEER AND GENERAL MANAGER

APPROVED BY _____ DATE: _____
OFFICE ENGINEER

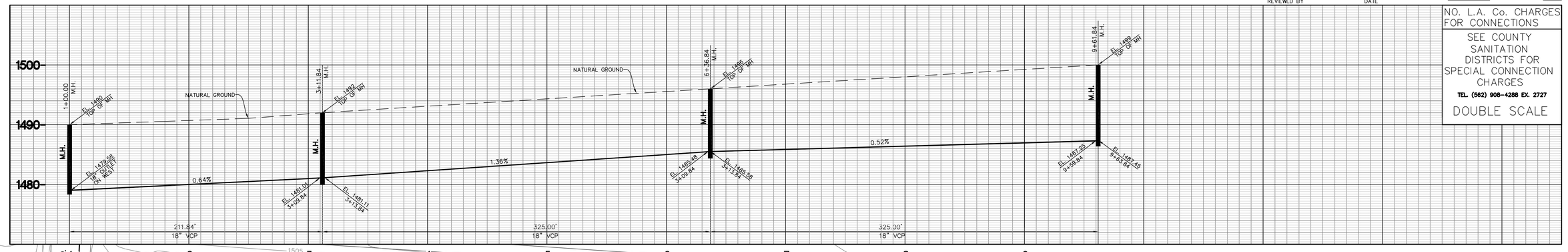
PRIVATE ENGINEERS NOTICE TO CONTRACTORS:

THE EXISTENCE AND LOCATION OF ANY UNDERGROUND UTILITY PIPES OR STRUCTURES SHOWN ON THESE PLANS IS REQUIRED BY A SEARCH OF AVAILABLE RECORDS TO THE BEST OF OUR KNOWLEDGE. THERE ARE NO EXISTING UTILITIES EXCEPT AS SHOWN ON THIS MAP. THE CONTRACTOR IS REQUIRED TO TAKE PRECAUTIONARY MEASURES TO PROTECT THE UTILITY LINES SHOWN AND ANY OTHER LINES NOT OF RECORD OR NOT SHOWN ON THIS DRAWING. PRIOR TO EXCAVATION THE CONTRACTOR SHALL CALL TOLL FREE 1-800-422-4133 TO VERIFY THE UNDERGROUND LOCATION OF GAS AND TELEPHONE LINES. THE CONTRACTOR SHALL ALSO CALL MR. RAY CUMMINGS OF GENERAL TELEPHONE COMPANY AT 1-805-948 4871 SO THAT THEY CAN MARK THE LOCATION OF UNDERGROUND TELEPHONE LINES.

PROJECT ENGINEER — RCE NO 51929 — 3/26/14 DATE

REVIEWED BY _____ DATE _____

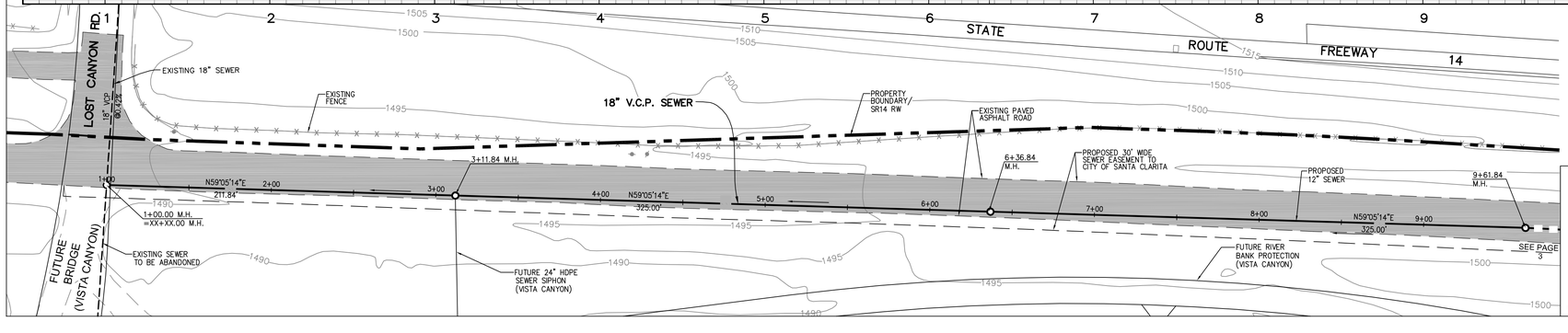
P.C. XX-XX PAGE 2



NO. L.A. Co. CHARGES FOR CONNECTIONS

SEE COUNTY SANITATION DISTRICTS FOR SPECIAL CONNECTION CHARGES
TEL. (562) 908-4288 EX. 2727

DOUBLE SCALE



PLAN
SCALE: 1" = 40'
25 0 50 100

SCALE 1"=40'

REGISTERED PROFESSIONAL ENGINEER CRAIG M. WHITTEKER NO. 51929 EXP 6-30-16 CIVIL STATE OF CALIFORNIA

PROJECT ENGINEER — 3/26/14 DATE

SANITARY SEWER PLANS IN SAND CANYON PC NO. XX-XX

CITY OF SANTA CLARITA

ALLIANCE
LAND PLANNING & ENGINEERING INC.

2248 FARADAY AVE.
CARLSBAD, CA 92008
TEL: (760) 431-9896
FAX:(760) 431-8802

27451 TOURNEY ROAD
SUITE 140
VALENCIA, CA 91355
TEL: (661) 799-2760

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PAGE NO. XX-XX P.C. XX-XX

P.C. xx–xx PAGE 3

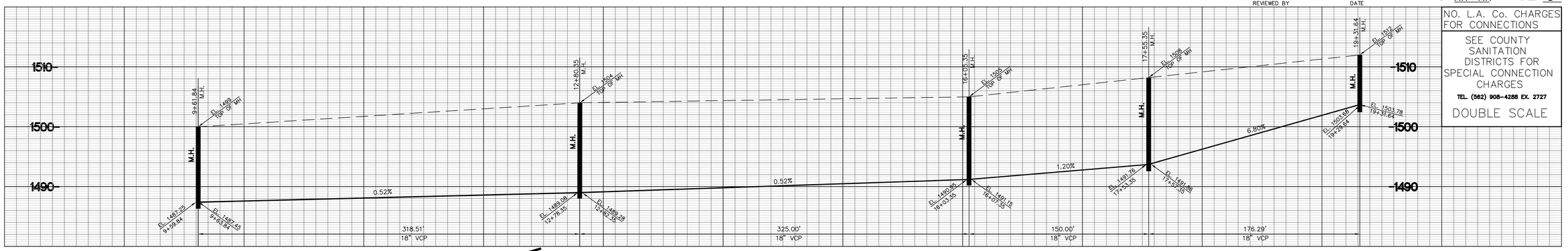
REVIEWED BY | DATE

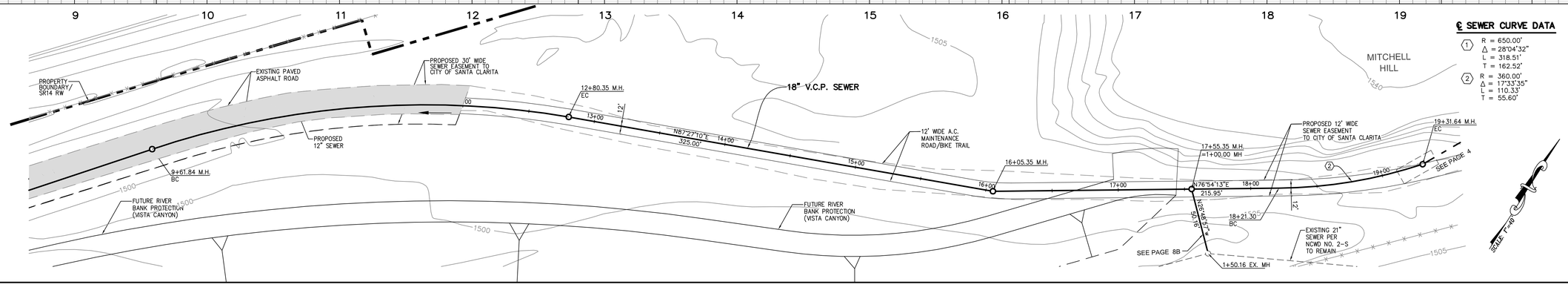
NO. L.A. Co. CHARGES FOR CONNECTIONS

SEE COUNTY SANITATION DISTRICTS FOR SPECIAL CONNECTION CHARGES

TEL. (562) 908-4288 EX. 2727

DOUBLE SCALE





℄ SEWER CURVE DATA

① R = 650.00'
Δ = 28°04'32"
L = 318.51'
T = 162.52'

② R = 360.00'
Δ = 17°33'35"
L = 110.33'
T = 55.60'

P.C. xx–xx PAGE 4

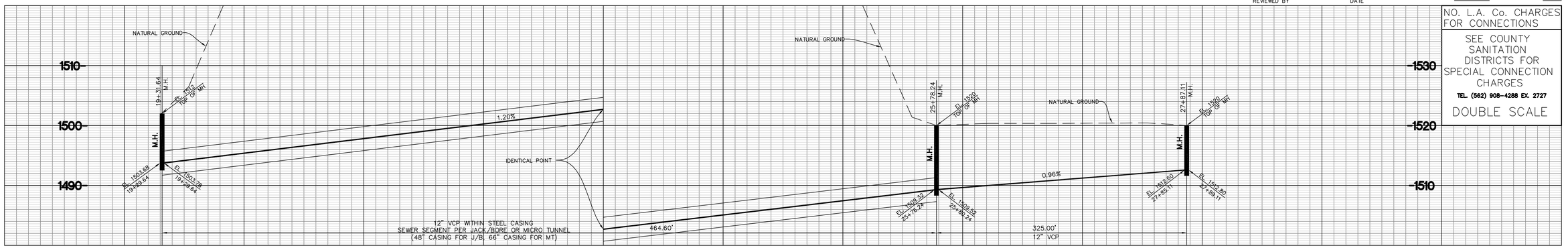
REVIEWED BY | DATE

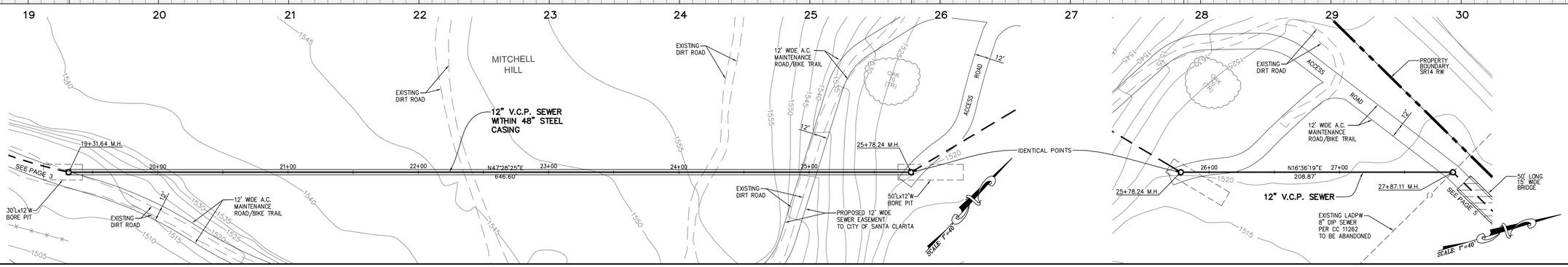
NO. L.A. Co. CHARGES FOR CONNECTIONS

SEE COUNTY SANITATION DISTRICTS FOR SPECIAL CONNECTION CHARGES

TEL. (562) 908-4288 EX. 2727

DOUBLE SCALE





b.c. xx–xx

P.C. XX–XX PAGE 5

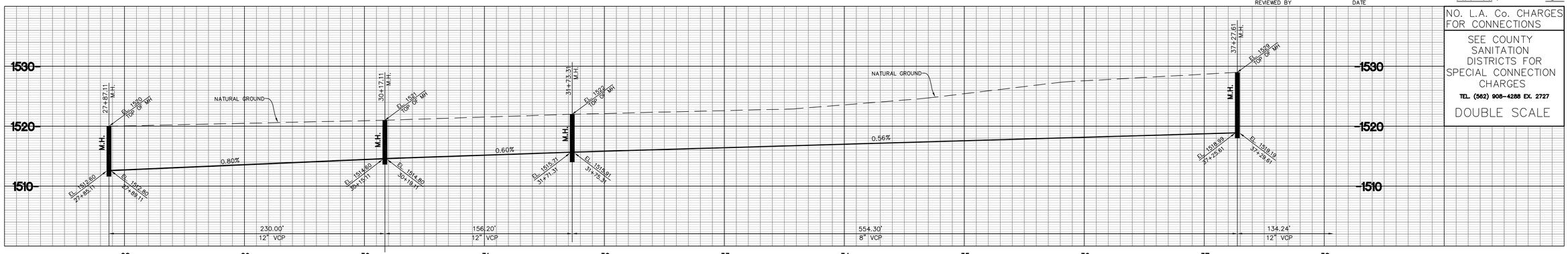
REVIEWED BY _____ DATE _____

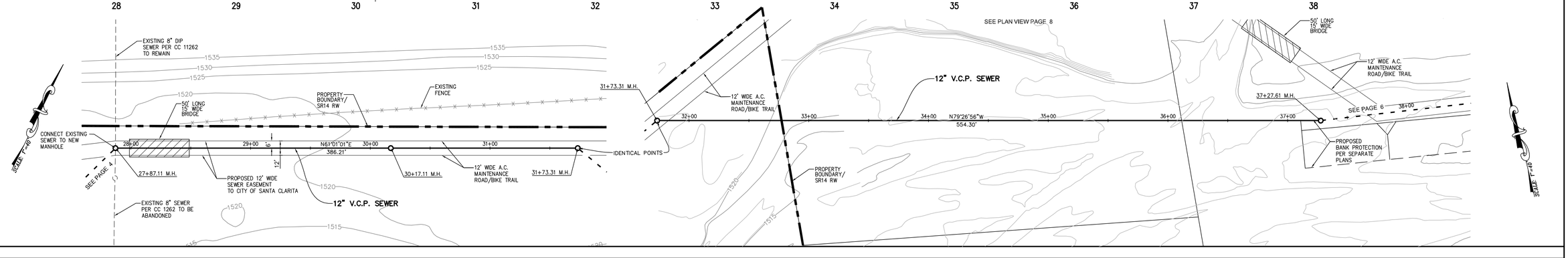
NO. L.A. Co. CHARGES FOR CONNECTIONS

SEE COUNTY SANITATION DISTRICTS FOR SPECIAL CONNECTION CHARGES

TEL. (562) 908-4288 EX. 2727

DOUBLE SCALE





P.C. XX–XX PAGE 6

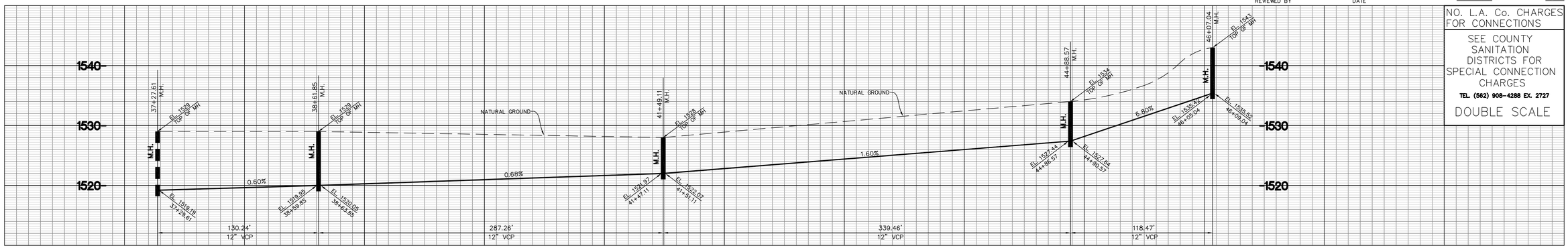
REVIEWED BY _____ DATE _____

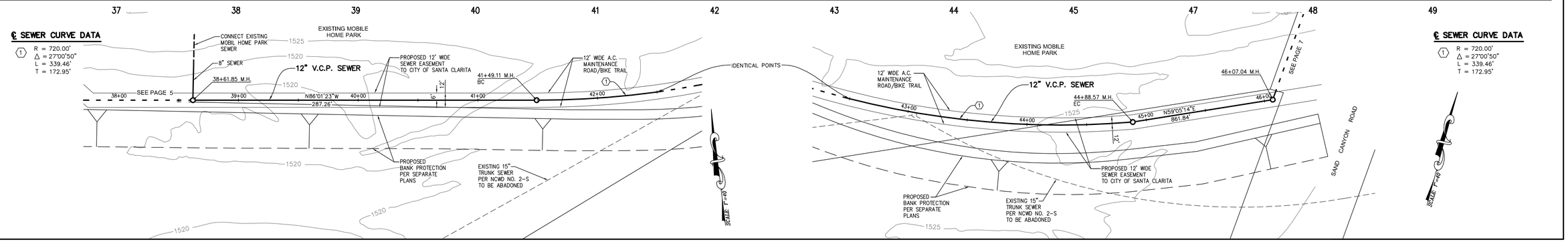
NO. L.A. Co. CHARGES FOR CONNECTIONS

SEE COUNTY SANITATION DISTRICTS FOR SPECIAL CONNECTION CHARGES

TEL. (562) 908-4288 EX. 2727

DOUBLE SCALE





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P.C. XX–XX PAGE 7

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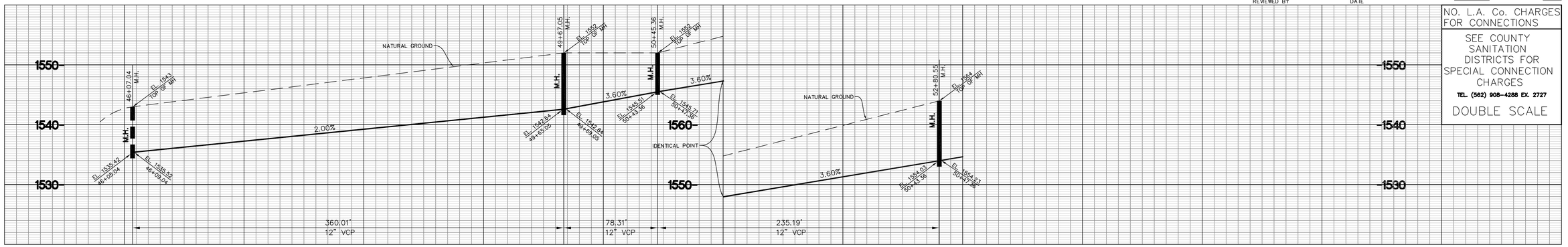
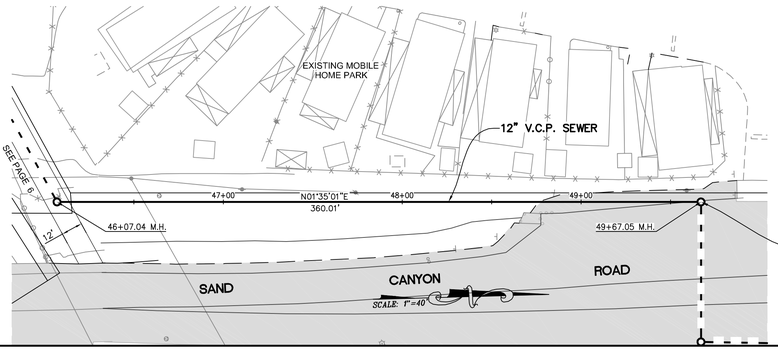
NO. L.A. Co. CHARGES FOR CONNECTIONS

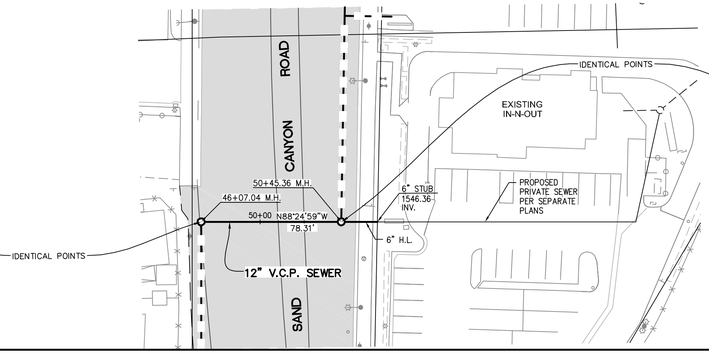
SEE COUNTY SANITATION DISTRICTS FOR SPECIAL CONNECTION CHARGES

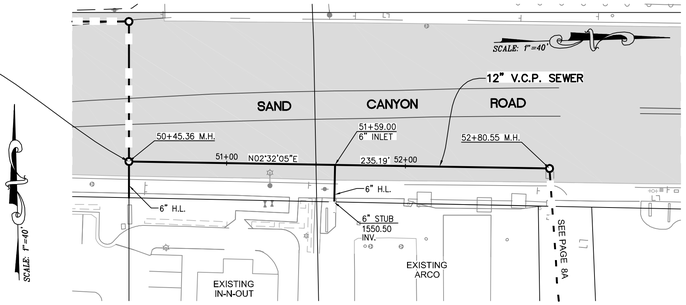
TEL. (562) 908-4288 EX. 2727

DOUBLE SCALE









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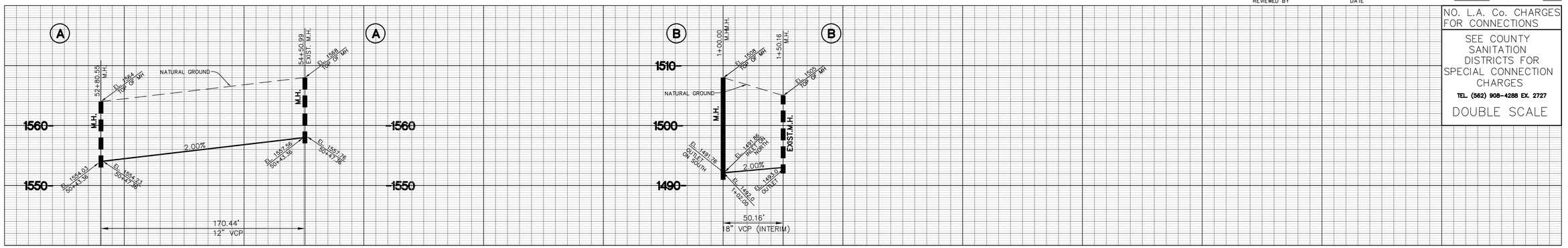
REVIEWED BY _____ DATE _____

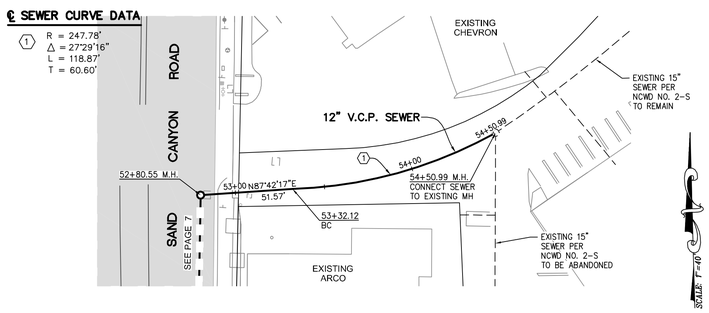
NO. L.A. Co. CHARGES FOR CONNECTIONS

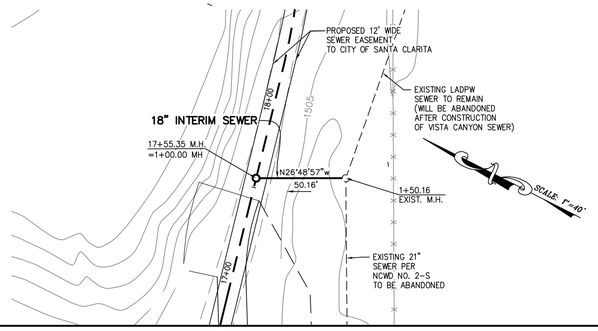
SEE COUNTY SANITATION DISTRICTS FOR SPECIAL CONNECTION CHARGES

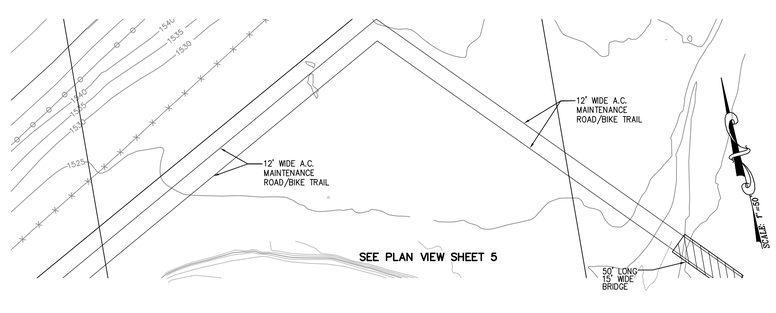
TEL. (562) 908-4288 EX. 2727

DOUBLE SCALE









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Appendix B

California Emissions Estimator Model Results

Sand Canyon Sewer Relocation Project (Unmitigated) Detailed Report

Table of Contents

1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	Sand Canyon Sewer Relocation Project (Unmitigated)
Construction Start Date	1/2/2025
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	2.50
Precipitation (days)	19.6
Location	Sand Canyon Rd, Santa Clarita, CA, USA
County	Los Angeles-South Coast
City	Santa Clarita
Air District	South Coast AQMD
Air Basin	South Coast
TAZ	3619
EDFZ	7
Electric Utility	Southern California Edison
Gas Utility	Southern California Gas
App Version	2022.1.1.21

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
Road Construction	0.66	Mile	2.40	0.00	—	—	—	—

1.3. User-Selected Emission Reduction Measures by Emissions Sector

Sector	#	Measure Title
Construction	C-2*	Limit Heavy-Duty Diesel Vehicle Idling
Construction	C-10-A	Water Exposed Surfaces
Construction	C-10-C	Water Unpaved Construction Roads
Construction	C-11	Limit Vehicle Speeds on Unpaved Roads
Construction	C-12	Sweep Paved Roads

* Qualitative or supporting measure. Emission reductions not included in the mitigated emissions results.

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.	3.12	2.63	23.0	25.5	0.05	0.91	3.01	3.92	0.84	0.37	1.21	—	6,075	6,075	0.25	0.06	1.39	6,100
Mit.	3.12	2.63	23.0	25.5	0.05	0.91	1.39	2.31	0.84	0.20	1.04	—	6,075	6,075	0.25	0.06	1.39	6,100
% Reduced	—	—	—	—	—	—	54%	41%	—	47%	14%	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	4.39	3.35	36.3	34.7	0.11	1.30	5.47	6.77	1.20	0.95	2.15	—	13,885	13,885	0.66	1.16	0.46	14,247
Mit.	4.39	3.35	36.3	34.7	0.11	1.30	3.53	4.83	1.20	0.74	1.94	—	13,885	13,885	0.66	1.16	0.46	14,247
% Reduced	—	—	—	—	—	—	36%	29%	—	22%	10%	—	—	—	—	—	—	—

Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.69	0.55	5.46	5.64	0.01	0.21	0.75	0.96	0.19	0.12	0.31	—	1,812	1,812	0.08	0.11	0.76	1,848
Mit.	0.69	0.55	5.46	5.64	0.01	0.21	0.44	0.65	0.19	0.09	0.27	—	1,812	1,812	0.08	0.11	0.76	1,848
% Reduced	—	—	—	—	—	—	41%	32%	—	28%	11%	—	—	—	—	—	—	—
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.13	0.10	1.00	1.03	< 0.005	0.04	0.14	0.18	0.03	0.02	0.06	—	300	300	0.01	0.02	0.13	306
Mit.	0.13	0.10	1.00	1.03	< 0.005	0.04	0.08	0.12	0.03	0.02	0.05	—	300	300	0.01	0.02	0.13	306
% Reduced	—	—	—	—	—	—	41%	32%	—	28%	11%	—	—	—	—	—	—	—

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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2025	3.12	2.63	23.0	25.5	0.05	0.91	3.01	3.92	0.84	0.37	1.21	—	6,075	6,075	0.25	0.06	1.39	6,100
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2025	4.39	3.35	36.3	34.7	0.11	1.30	5.47	6.77	1.20	0.95	2.15	—	13,885	13,885	0.66	1.16	0.46	14,247
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2025	0.69	0.55	5.46	5.64	0.01	0.21	0.75	0.96	0.19	0.12	0.31	—	1,812	1,812	0.08	0.11	0.76	1,848
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2025	0.13	0.10	1.00	1.03	< 0.005	0.04	0.14	0.18	0.03	0.02	0.06	—	300	300	0.01	0.02	0.13	306

2.3. Construction Emissions by Year, Mitigated

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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2025	3.12	2.63	23.0	25.5	0.05	0.91	1.39	2.31	0.84	0.20	1.04	—	6,075	6,075	0.25	0.06	1.39	6,100
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2025	4.39	3.35	36.3	34.7	0.11	1.30	3.53	4.83	1.20	0.74	1.94	—	13,885	13,885	0.66	1.16	0.46	14,247
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2025	0.69	0.55	5.46	5.64	0.01	0.21	0.44	0.65	0.19	0.09	0.27	—	1,812	1,812	0.08	0.11	0.76	1,848
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2025	0.13	0.10	1.00	1.03	< 0.005	0.04	0.08	0.12	0.03	0.02	0.05	—	300	300	0.01	0.02	0.13	306

3. Construction Emissions Details

3.1. Linear, Grubbing & Land Clearing (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	0.46	0.39	3.39	3.49	< 0.005	0.21	—	0.21	0.19	—	0.19	—	490	490	0.02	< 0.005	—	492
Dust From Material Movement	—	—	—	—	—	—	0.53	0.53	—	0.06	0.06	—	—	—	—	—	—	—
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
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.07	0.08	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	10.7	10.7	< 0.005	< 0.005	—	10.8
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
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	1.78	1.78	< 0.005	< 0.005	—	1.79
Dust From Material Movement	—	—	—	—	—	—	< 0.005	< 0.005	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04	0.03	0.04	0.44	0.00	0.00	0.10	0.10	0.00	0.02	0.02	—	98.3	98.3	< 0.005	< 0.005	0.01	99.5

Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	2.19	2.19	< 0.005	< 0.005	< 0.005	2.22
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.36	0.36	< 0.005	< 0.005	< 0.005	0.37
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

3.2. Linear, Grubbing & Land Clearing (2025) - Mitigated

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	0.46	0.39	3.39	3.49	< 0.005	0.21	—	0.21	0.19	—	0.19	—	490	490	0.02	< 0.005	—	492
Dust From Material Movement	—	—	—	—	—	—	0.21	0.21	—	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

Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.07	0.08	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	10.7	10.7	< 0.005	< 0.005	—	10.8
Dust From Material Movement	—	—	—	—	—	—	< 0.005	< 0.005	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	1.78	1.78	< 0.005	< 0.005	—	1.79
Dust From Material Movement	—	—	—	—	—	—	< 0.005	< 0.005	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04	0.03	0.04	0.44	0.00	0.00	0.10	0.10	0.00	0.02	0.02	—	98.3	98.3	< 0.005	< 0.005	0.01	99.5
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	2.19	2.19	< 0.005	< 0.005	< 0.005	2.22
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.36	0.36	< 0.005	< 0.005	< 0.005	0.37
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

3.3. Linear, Grading & Excavation (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	3.71	3.11	27.3	29.4	0.06	1.21	—	1.21	1.11	—	1.11	—	6,496	6,496	0.26	0.05	—	6,518
Dust From Material Movement	—	—	—	—	—	—	3.19	3.19	—	0.34	0.34	—	—	—	—	—	—	—
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	0.34	0.28	2.47	2.66	0.01	0.11	—	0.11	0.10	—	0.10	—	587	587	0.02	< 0.005	—	589
Dust From Material Movement	—	—	—	—	—	—	0.29	0.29	—	0.03	0.03	—	—	—	—	—	—	—

Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.06	0.05	0.45	0.49	< 0.005	0.02	—	0.02	0.02	—	0.02	—	97.2	97.2	< 0.005	< 0.005	—	97.6
Dust From Material Movement	—	—	—	—	—	—	0.05	0.05	—	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
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.15	0.14	0.16	1.92	0.00	0.00	0.42	0.42	0.00	0.10	0.10	—	426	426	0.02	0.02	0.04	431
Vendor	< 0.005	< 0.005	0.04	0.02	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	31.7	31.7	< 0.005	< 0.005	< 0.005	33.1
Hauling	0.53	0.10	8.83	3.34	0.05	0.09	1.85	1.94	0.09	0.51	0.60	—	6,930	6,930	0.38	1.09	0.42	7,264
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.02	0.18	0.00	0.00	0.04	0.04	0.00	0.01	0.01	—	39.1	39.1	< 0.005	< 0.005	0.06	39.6
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	2.87	2.87	< 0.005	< 0.005	< 0.005	3.00
Hauling	0.05	0.01	0.81	0.30	< 0.005	0.01	0.17	0.17	0.01	0.05	0.05	—	626	626	0.03	0.10	0.63	657
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.03	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	6.47	6.47	< 0.005	< 0.005	0.01	6.56
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.47	0.47	< 0.005	< 0.005	< 0.005	0.50
Hauling	0.01	< 0.005	0.15	0.05	< 0.005	< 0.005	0.03	0.03	< 0.005	0.01	0.01	—	104	104	0.01	0.02	0.10	109

3.4. Linear, Grading & Excavation (2025) - Mitigated

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	3.71	3.11	27.3	29.4	0.06	1.21	—	1.21	1.11	—	1.11	—	6,496	6,496	0.26	0.05	—	6,518
Dust From Material Movement	—	—	—	—	—	—	1.24	1.24	—	0.13	0.13	—	—	—	—	—	—	—
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	0.34	0.28	2.47	2.66	0.01	0.11	—	0.11	0.10	—	0.10	—	587	587	0.02	< 0.005	—	589
Dust From Material Movement	—	—	—	—	—	—	0.11	0.11	—	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
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.06	0.05	0.45	0.49	< 0.005	0.02	—	0.02	0.02	—	0.02	—	97.2	97.2	< 0.005	< 0.005	—	97.6

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
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.15	0.14	0.16	1.92	0.00	0.00	0.42	0.42	0.00	0.10	0.10	—	426	426	0.02	0.02	0.04	431
Vendor	< 0.005	< 0.005	0.04	0.02	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	31.7	31.7	< 0.005	< 0.005	< 0.005	33.1
Hauling	0.53	0.10	8.83	3.34	0.05	0.09	1.85	1.94	0.09	0.51	0.60	—	6,930	6,930	0.38	1.09	0.42	7,264
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.02	0.18	0.00	0.00	0.04	0.04	0.00	0.01	0.01	—	39.1	39.1	< 0.005	< 0.005	0.06	39.6
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	2.87	2.87	< 0.005	< 0.005	< 0.005	3.00
Hauling	0.05	0.01	0.81	0.30	< 0.005	0.01	0.17	0.17	0.01	0.05	0.05	—	626	626	0.03	0.10	0.63	657
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.03	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	6.47	6.47	< 0.005	< 0.005	0.01	6.56
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.47	0.47	< 0.005	< 0.005	< 0.005	0.50
Hauling	0.01	< 0.005	0.15	0.05	< 0.005	< 0.005	0.03	0.03	< 0.005	0.01	0.01	—	104	104	0.01	0.02	0.10	109

3.5. Linear, Drainage, Utilities, & Sub-Grade (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	2.99	2.51	22.9	23.6	0.05	0.91	—	0.91	0.84	—	0.84	—	5,694	5,694	0.23	0.05	—	5,713
Dust From Material Movement	—	—	—	—	—	—	2.65	2.65	—	0.29	0.29	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	2.99	2.51	22.9	23.6	0.05	0.91	—	0.91	0.84	—	0.84	—	5,694	5,694	0.23	0.05	—	5,713
Dust From Material Movement	—	—	—	—	—	—	2.65	2.65	—	0.29	0.29	—	—	—	—	—	—	—
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	0.24	0.20	1.82	1.88	< 0.005	0.07	—	0.07	0.07	—	0.07	—	452	452	0.02	< 0.005	—	454
Dust From Material Movement	—	—	—	—	—	—	0.21	0.21	—	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	0.04	0.04	0.33	0.34	< 0.005	0.01	—	0.01	0.01	—	0.01	—	74.9	74.9	< 0.005	< 0.005	—	75.2

Dust From Material Movement	—	—	—	—	—	—	0.04	0.04	—	< 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	0.13	0.12	0.12	1.91	0.00	0.00	0.36	0.36	0.00	0.08	0.08	—	380	380	0.02	0.01	1.39	386
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	0.13	0.12	0.13	1.62	0.00	0.00	0.36	0.36	0.00	0.08	0.08	—	360	360	0.02	0.01	0.04	365
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.14	0.00	0.00	0.03	0.03	0.00	0.01	0.01	—	29.1	29.1	< 0.005	< 0.005	0.05	29.4
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.02	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	4.81	4.81	< 0.005	< 0.005	0.01	4.88
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

3.6. Linear, Drainage, Utilities, & Sub-Grade (2025) - Mitigated

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	2.99	2.51	22.9	23.6	0.05	0.91	—	0.91	0.84	—	0.84	—	5,694	5,694	0.23	0.05	—	5,713
Dust From Material Movement	—	—	—	—	—	—	1.03	1.03	—	0.11	0.11	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	2.99	2.51	22.9	23.6	0.05	0.91	—	0.91	0.84	—	0.84	—	5,694	5,694	0.23	0.05	—	5,713
Dust From Material Movement	—	—	—	—	—	—	1.03	1.03	—	0.11	0.11	—	—	—	—	—	—	—
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	0.24	0.20	1.82	1.88	< 0.005	0.07	—	0.07	0.07	—	0.07	—	452	452	0.02	< 0.005	—	454
Dust From Material Movement	—	—	—	—	—	—	0.08	0.08	—	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

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.04	0.04	0.33	0.34	< 0.005	0.01	—	0.01	0.01	—	0.01	—	74.9	74.9	< 0.005	< 0.005	—	75.2
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	0.13	0.12	0.12	1.91	0.00	0.00	0.36	0.36	0.00	0.08	0.08	—	380	380	0.02	0.01	1.39	386
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	0.13	0.12	0.13	1.62	0.00	0.00	0.36	0.36	0.00	0.08	0.08	—	360	360	0.02	0.01	0.04	365
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.14	0.00	0.00	0.03	0.03	0.00	0.01	0.01	—	29.1	29.1	< 0.005	< 0.005	0.05	29.4
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.02	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	4.81	4.81	< 0.005	< 0.005	0.01	4.88
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

3.7. Linear, 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	1.06	0.89	7.71	10.8	0.01	0.34	—	0.34	0.31	—	0.31	—	1,620	1,620	0.07	0.01	—	1,625
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	0.25	0.35	< 0.005	0.01	—	0.01	0.01	—	0.01	—	53.3	53.3	< 0.005	< 0.005	—	53.4
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
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.05	0.06	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	8.82	8.82	< 0.005	< 0.005	—	8.85
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.10	0.09	0.09	1.39	0.00	0.00	0.26	0.26	0.00	0.06	0.06	—	277	277	0.01	0.01	1.01	281
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	0.04	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	8.75	8.75	< 0.005	< 0.005	0.01	8.86
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	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.45	1.45	< 0.005	< 0.005	< 0.005	1.47
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

3.8. Linear, Paving (2025) - Mitigated

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	1.06	0.89	7.71	10.8	0.01	0.34	—	0.34	0.31	—	0.31	—	1,620	1,620	0.07	0.01	—	1,625
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	0.25	0.35	< 0.005	0.01	—	0.01	0.01	—	0.01	—	53.3	53.3	< 0.005	< 0.005	—	53.4

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
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.05	0.06	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	8.82	8.82	< 0.005	< 0.005	—	8.85
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.10	0.09	0.09	1.39	0.00	0.00	0.26	0.26	0.00	0.06	0.06	—	277	277	0.01	0.01	1.01	281
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	0.04	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	8.75	8.75	< 0.005	< 0.005	0.01	8.86
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	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.45	1.45	< 0.005	< 0.005	< 0.005	1.47
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

4.10. 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	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Sequest	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.4. Soil Carbon Accumulation By Vegetation Type - Mitigated

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	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.5. Above and Belowground Carbon Accumulation by Land Use Type - Mitigated

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	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.6. Avoided and Sequestered Emissions by Species - Mitigated

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
Linear, Grubbing & Land Clearing	Linear, Grubbing & Land Clearing	1/2/2025	1/13/2025	5.00	8.00	—
Linear, Grading & Excavation	Linear, Grading & Excavation	1/14/2025	3/1/2025	5.00	33.0	—
Linear, Drainage, Utilities, & Sub-Grade	Linear, Drainage, Utilities, & Sub-Grade	3/2/2025	4/11/2025	5.00	29.0	—
Linear, Paving	Linear, Paving	4/12/2025	4/28/2025	5.00	12.0	—

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
Linear, Grubbing & Land Clearing	Signal Boards	Electric	Average	1.00	8.00	6.00	0.82
Linear, Grubbing & Land Clearing	Crawler Tractors	Diesel	Average	1.00	8.00	87.0	0.43
Linear, Grubbing & Land Clearing	Excavators	Diesel	Average	1.00	8.00	36.0	0.38
Linear, Grading & Excavation	Excavators	Diesel	Average	3.00	8.00	36.0	0.38
Linear, Grading & Excavation	Crawler Tractors	Diesel	Average	1.00	8.00	87.0	0.43
Linear, Grading & Excavation	Graders	Diesel	Average	1.00	8.00	148	0.41
Linear, Grading & Excavation	Rollers	Diesel	Average	2.00	8.00	36.0	0.38
Linear, Grading & Excavation	Scrapers	Diesel	Average	2.00	8.00	423	0.48
Linear, Grading & Excavation	Rubber Tired Loaders	Diesel	Average	1.00	8.00	150	0.36
Linear, Grading & Excavation	Signal Boards	Electric	Average	1.00	8.00	6.00	0.82
Linear, Grading & Excavation	Tractors/Loaders/Backhoes	Diesel	Average	2.00	8.00	84.0	0.37
Linear, Drainage, Utilities, & Sub-Grade	Tractors/Loaders/Backhoes	Diesel	Average	2.00	8.00	84.0	0.37
Linear, Drainage, Utilities, & Sub-Grade	Signal Boards	Electric	Average	1.00	8.00	6.00	0.82
Linear, Drainage, Utilities, & Sub-Grade	Scrapers	Diesel	Average	2.00	8.00	423	0.48
Linear, Drainage, Utilities, & Sub-Grade	Rough Terrain Forklifts	Diesel	Average	1.00	8.00	96.0	0.40

Linear, Drainage, Utilities, & Sub-Grade	Graders	Diesel	Average	1.00	8.00	148	0.41
Linear, Drainage, Utilities, & Sub-Grade	Plate Compactors	Diesel	Average	1.00	8.00	8.00	0.43
Linear, Drainage, Utilities, & Sub-Grade	Pumps	Diesel	Average	1.00	8.00	11.0	0.74
Linear, Drainage, Utilities, & Sub-Grade	Air Compressors	Diesel	Average	1.00	8.00	37.0	0.48
Linear, Drainage, Utilities, & Sub-Grade	Generator Sets	Diesel	Average	1.00	8.00	14.0	0.74
Linear, Paving	Rollers	Diesel	Average	3.00	8.00	36.0	0.38
Linear, Paving	Paving Equipment	Diesel	Average	1.00	8.00	89.0	0.36
Linear, Paving	Pavers	Diesel	Average	1.00	8.00	81.0	0.42
Linear, Paving	Tractors/Loaders/Backhoes	Diesel	Average	2.00	8.00	84.0	0.37
Linear, Paving	Signal Boards	Electric	Average	1.00	8.00	6.00	0.82

5.2.2. Mitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Linear, Grubbing & Land Clearing	Signal Boards	Electric	Average	1.00	8.00	6.00	0.82
Linear, Grubbing & Land Clearing	Crawler Tractors	Diesel	Average	1.00	8.00	87.0	0.43
Linear, Grubbing & Land Clearing	Excavators	Diesel	Average	1.00	8.00	36.0	0.38
Linear, Grading & Excavation	Excavators	Diesel	Average	3.00	8.00	36.0	0.38
Linear, Grading & Excavation	Crawler Tractors	Diesel	Average	1.00	8.00	87.0	0.43
Linear, Grading & Excavation	Graders	Diesel	Average	1.00	8.00	148	0.41

Linear, Grading & Excavation	Rollers	Diesel	Average	2.00	8.00	36.0	0.38
Linear, Grading & Excavation	Scrapers	Diesel	Average	2.00	8.00	423	0.48
Linear, Grading & Excavation	Rubber Tired Loaders	Diesel	Average	1.00	8.00	150	0.36
Linear, Grading & Excavation	Signal Boards	Electric	Average	1.00	8.00	6.00	0.82
Linear, Grading & Excavation	Tractors/Loaders/Backhoes	Diesel	Average	2.00	8.00	84.0	0.37
Linear, Drainage, Utilities, & Sub-Grade	Tractors/Loaders/Backhoes	Diesel	Average	2.00	8.00	84.0	0.37
Linear, Drainage, Utilities, & Sub-Grade	Signal Boards	Electric	Average	1.00	8.00	6.00	0.82
Linear, Drainage, Utilities, & Sub-Grade	Scrapers	Diesel	Average	2.00	8.00	423	0.48
Linear, Drainage, Utilities, & Sub-Grade	Rough Terrain Forklifts	Diesel	Average	1.00	8.00	96.0	0.40
Linear, Drainage, Utilities, & Sub-Grade	Graders	Diesel	Average	1.00	8.00	148	0.41
Linear, Drainage, Utilities, & Sub-Grade	Plate Compactors	Diesel	Average	1.00	8.00	8.00	0.43
Linear, Drainage, Utilities, & Sub-Grade	Pumps	Diesel	Average	1.00	8.00	11.0	0.74
Linear, Drainage, Utilities, & Sub-Grade	Air Compressors	Diesel	Average	1.00	8.00	37.0	0.48
Linear, Drainage, Utilities, & Sub-Grade	Generator Sets	Diesel	Average	1.00	8.00	14.0	0.74
Linear, Paving	Rollers	Diesel	Average	3.00	8.00	36.0	0.38
Linear, Paving	Paving Equipment	Diesel	Average	1.00	8.00	89.0	0.36
Linear, Paving	Pavers	Diesel	Average	1.00	8.00	81.0	0.42
Linear, Paving	Tractors/Loaders/Backhoes	Diesel	Average	2.00	8.00	84.0	0.37

Linear, Paving	Signal Boards	Electric	Average	1.00	8.00	6.00	0.82

5.3. Construction Vehicles

5.3.1. Unmitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Linear, Grubbing & Land Clearing	—	—	—	—
Linear, Grubbing & Land Clearing	Worker	7.50	18.5	LDA,LDT1,LDT2
Linear, Grubbing & Land Clearing	Vendor	0.00	10.2	HHDT,MHDT
Linear, Grubbing & Land Clearing	Hauling	0.00	20.0	HHDT
Linear, Grubbing & Land Clearing	Onsite truck	—	—	HHDT
Linear, Grading & Excavation	—	—	—	—
Linear, Grading & Excavation	Worker	32.5	18.5	LDA,LDT1,LDT2
Linear, Grading & Excavation	Vendor	1.00	10.2	HHDT,MHDT
Linear, Grading & Excavation	Hauling	100	20.0	HHDT
Linear, Grading & Excavation	Onsite truck	—	—	HHDT
Linear, Drainage, Utilities, & Sub-Grade	—	—	—	—
Linear, Drainage, Utilities, & Sub-Grade	Worker	27.5	18.5	LDA,LDT1,LDT2
Linear, Drainage, Utilities, & Sub-Grade	Vendor	0.00	10.2	HHDT,MHDT
Linear, Drainage, Utilities, & Sub-Grade	Hauling	0.00	20.0	HHDT
Linear, Drainage, Utilities, & Sub-Grade	Onsite truck	—	—	HHDT
Linear, Paving	—	—	—	—
Linear, Paving	Worker	20.0	18.5	LDA,LDT1,LDT2
Linear, Paving	Vendor	0.00	10.2	HHDT,MHDT
Linear, Paving	Hauling	0.00	20.0	HHDT
Linear, Paving	Onsite truck	—	—	HHDT

5.3.2. Mitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Linear, Grubbing & Land Clearing	—	—	—	—
Linear, Grubbing & Land Clearing	Worker	7.50	18.5	LDA,LDT1,LDT2
Linear, Grubbing & Land Clearing	Vendor	0.00	10.2	HHDT,MHDT
Linear, Grubbing & Land Clearing	Hauling	0.00	20.0	HHDT
Linear, Grubbing & Land Clearing	Onsite truck	—	—	HHDT
Linear, Grading & Excavation	—	—	—	—
Linear, Grading & Excavation	Worker	32.5	18.5	LDA,LDT1,LDT2
Linear, Grading & Excavation	Vendor	1.00	10.2	HHDT,MHDT
Linear, Grading & Excavation	Hauling	100	20.0	HHDT
Linear, Grading & Excavation	Onsite truck	—	—	HHDT
Linear, Drainage, Utilities, & Sub-Grade	—	—	—	—
Linear, Drainage, Utilities, & Sub-Grade	Worker	27.5	18.5	LDA,LDT1,LDT2
Linear, Drainage, Utilities, & Sub-Grade	Vendor	0.00	10.2	HHDT,MHDT
Linear, Drainage, Utilities, & Sub-Grade	Hauling	0.00	20.0	HHDT
Linear, Drainage, Utilities, & Sub-Grade	Onsite truck	—	—	HHDT
Linear, Paving	—	—	—	—
Linear, Paving	Worker	20.0	18.5	LDA,LDT1,LDT2
Linear, Paving	Vendor	0.00	10.2	HHDT,MHDT
Linear, Paving	Hauling	0.00	20.0	HHDT
Linear, Paving	Onsite truck	—	—	HHDT

5.4. Vehicles

5.4.1. Construction Vehicle Control Strategies

Non-applicable. No control strategies activated by user.

5.5. Architectural Coatings

Phase Name	Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)

5.6. Dust Mitigation

5.6.1. Construction Earthmoving Activities

Phase Name	Material Imported (cy)	Material Exported (cy)	Acres Graded (acres)	Material Demolished (sq. ft.)	Acres Paved (acres)
Linear, Grubbing & Land Clearing	—	—	2.40	0.00	—
Linear, Grading & Excavation	—	2,400	2.40	0.00	—
Linear, Drainage, Utilities, & Sub-Grade	—	—	2.40	0.00	—

5.6.2. Construction Earthmoving Control Strategies

Non-applicable. No control strategies activated by user.

5.7. Construction Paving

Land Use	Area Paved (acres)	% Asphalt
Road Construction	2.40	100%

5.8. Construction Electricity Consumption and Emissions Factors

kWh per Year and Emission Factor (lb/MWh)

Year	kWh per Year	CO2	CH4	N2O
2025	117	532	0.03	< 0.005

5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres

5.18.1.2. Mitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres

5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.1.2. Mitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.2. Sequestration

5.18.2.1. Unmitigated

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

5.18.2.2. Mitigated

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

6. Climate Risk Detailed Report

6.1. Climate Risk Summary

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

Climate Hazard	Result for Project Location	Unit
Temperature and Extreme Heat	24.0	annual days of extreme heat
Extreme Precipitation	7.50	annual days with precipitation above 20 mm
Sea Level Rise	—	meters of inundation depth
Wildfire	17.8	annual hectares burned

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

6.2. Initial Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	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 Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	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 Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	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	97.0

AQ-PM	50.1
AQ-DPM	7.26
Drinking Water	68.4
Lead Risk Housing	23.0
Pesticides	0.00
Toxic Releases	39.1
Traffic	82.2
Effect Indicators	—
CleanUp Sites	54.7
Groundwater	22.1
Haz Waste Facilities/Generators	26.7
Impaired Water Bodies	12.5
Solid Waste	0.00
Sensitive Population	—
Asthma	33.7
Cardio-vascular	23.5
Low Birth Weights	1.68
Socioeconomic Factor Indicators	—
Education	5.10
Housing	28.7
Linguistic	7.38
Poverty	4.17
Unemployment	74.1

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

Economic	—
Above Poverty	86.28256127
Employed	63.51854228
Median HI	93.95611446
Education	—
Bachelor's or higher	76.26074682
High school enrollment	7.583728988
Preschool enrollment	47.26036186
Transportation	—
Auto Access	92.6344155
Active commuting	5.171307584
Social	—
2-parent households	80.99576543
Voting	69.2416271
Neighborhood	—
Alcohol availability	97.0101373
Park access	32.15706403
Retail density	77.50545361
Supermarket access	16.34800462
Tree canopy	66.31592455
Housing	—
Homeownership	92.7242397
Housing habitability	88.22019761
Low-inc homeowner severe housing cost burden	37.93147697
Low-inc renter severe housing cost burden	86.42371359
Uncrowded housing	56.30694213
Health Outcomes	—

Insured adults	84.53740536
Arthritis	21.6
Asthma ER Admissions	65.6
High Blood Pressure	33.3
Cancer (excluding skin)	11.3
Asthma	61.7
Coronary Heart Disease	28.5
Chronic Obstructive Pulmonary Disease	42.5
Diagnosed Diabetes	65.9
Life Expectancy at Birth	83.3
Cognitively Disabled	48.3
Physically Disabled	81.6
Heart Attack ER Admissions	30.1
Mental Health Not Good	71.0
Chronic Kidney Disease	55.3
Obesity	65.8
Pedestrian Injuries	19.6
Physical Health Not Good	65.0
Stroke	58.2
Health Risk Behaviors	—
Binge Drinking	28.2
Current Smoker	73.3
No Leisure Time for Physical Activity	87.1
Climate Change Exposures	—
Wildfire Risk	97.9
SLR Inundation Area	0.0
Children	37.8

Elderly	84.9
English Speaking	66.2
Foreign-born	58.9
Outdoor Workers	85.0
Climate Change Adaptive Capacity	—
Impervious Surface Cover	77.0
Traffic Density	79.5
Traffic Access	23.0
Other Indices	—
Hardship	21.8
Other Decision Support	—
2016 Voting	52.0

7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	14.0
Healthy Places Index Score for Project Location (b)	77.0
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

Appendix C

Biological Resources Assessment

Sand Canyon Sewer Relocation Project

Biological Resources Assessment

prepared for

Santa Clarita Valley Water Agency
26521 Summit Circle
Santa Clarita, California 91350
Contact: Amy Anderson, Project Manager

prepared by

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250 East 1st Street, Suite 1400
Los Angeles, California 90012

February 2024

RINCON CONSULTANTS, INC. SINCE 1994

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Executive Summary

Rincon Consultants, Inc. has prepared this Biological Resources Assessment to document existing conditions and provide a basis for evaluation of potential impacts to biological resources from the Santa Clarita Valley Water Agency's (SCV Water) Sand Canyon Sewer Relocation Project (project). The proposed project includes construction of approximately 3,500 linear feet of new 21-inch and 15-inch sewer pipeline on the north side of the Santa Clara River (SCR). An existing sewer line extends east from Vista Canyon Boulevard at the State Route 14 undercrossing within the SCR, crosses under the Sand Canyon Road bridge, and terminates approximately 600 feet east of the bridge. The purpose of the proposed project is to relocate the existing sewer line from within the flow path of the river into the adjacent overbank. The project also includes the development of a 12-foot-wide paved access road, and soil cement bank protection for the proposed sewer line along the northern bank of the SCR where the bank is unstable and subject to erosion. The Area of Potential Effects (APE) surrounding the project site encompasses a 100-foot survey buffer.

One special-status plant species, the slender mariposa-lily (*Calochortus clavatus* var. *gracilis*), has a high potential to occur within the APE. Additionally, the following three special-status plant species have a moderate potential to occur in the APE: San Fernando Valley spineflower (*Chorizanthe parryi* var. *fernandina*), Parry's spineflower (*Chorizanthe parryi* var. *parryi*), and slender-horned spineflower (*Dodecahema leptoceras*). Four special-status wildlife species have a high potential to occur, including California legless lizard (*Anniella* spp.), coastal whiptail (*Aspidoscelis tigris stejnegeri*), California horned lark (*Eremophila alpestris actia*), and San Diego black-tailed jackrabbit (*Lepus californicus bennettii*). Eight species have a moderate potential to occur and include Crotch bumble bee (*Bombus crotchii*), Santa Ana sucker (*Catostomus santaanae*), unarmored threespine stickleback (*Gasterosteus aculeatus williamsoni*), arroyo chub (*Gila orcuttii*), arroyo toad (*Anaxyrus californicus*), western spadefoot (*Spea hammondii*), coast horned lizard (*Phrynosoma blainvillii*), and Cooper's hawk (*Accipiter cooperii*). No federally-designated critical habitat occurs within the APE.

Additionally, three sensitive plant communities are located within the APE: clustered tarweed fields, Fremont cottonwood forest and woodland, and scale broom scrub. The APE also contains potential nesting habitat for bird species protected under California Fish and Game Code Section 3503 and the federal Migratory Bird Treaty Act.

The proposed project includes 1.94 acres of temporary impacts and 1.53 acres of permanent impacts, some of which occur in vegetation communities that have the potential to support special-status species and nesting birds. Avoidance and minimization measures (AMMs) BIO-1 through BIO-5 would require implementation of Best Management Practices (BMP), a worker education program, pre-project botanical surveys, avoidance measures, and compensatory mitigation requirements (if applicable). These AMMs would reduce impacts to special-status plant species to less-than-significant levels. In addition, AMMs BIO-6 through BIO-9 would require a pre-activity special-status wildlife species survey and biological monitoring during ground disturbance, dry-season construction, and pre-construction nesting bird surveys and avoidance of nesting birds. With implementation of AMMs BIO-1, BIO-2, and BIO-6 through BIO-9, impacts to special-status wildlife species would be reduced to less-than-significant levels.

The proposed project includes 0.18 acre of temporary impact and 0.07 acre of permanent impact to Fremont cottonwood forest and woodland, a sensitive plant community. Implementation of AMM BIO-10 would require compensation for impacts to this plant community, and would reduce impacts

to sensitive plant communities to less-than-significant levels. Moreover, the proposed project would temporarily impact <0.01 acre (22 linear feet) of potential non-wetland waters of the state, 0.02 acre of potential wetland waters of the U.S./state, and 0.35 acre (1,624 linear feet) of potential California Department of Fish and Wildlife (CDFW) streambed and associated riparian habitat. The proposed project would permanently impact 0.16 acre (625 linear feet) of potential non-wetland waters of the U.S. and 0.16 acre (634 linear feet) of potential non-wetland waters of the state. The project would permanently impact 0.79 acre (2,440 linear feet) of potential CDFW streambed and associated riparian habitat. SCV Water would consult with the appropriate regulatory agencies (United States Army Corps of Engineers [USACE], Los Angeles Regional Water Quality Control Board [RWQCB], and/or CDFW) anticipated to assert jurisdiction over the features, and acquire necessary permits prior to implementation of the project. Furthermore, implementation of AMMs BIO-10 and BIO-11 would reduce impacts to jurisdictional waters and wetlands to less-than-significant levels.

The SCR in the southern portion of the APE provides a valuable movement and migration corridor for many types of wildlife, including terrestrial, semi-aquatic, and aquatic species. Construction activities would not occur within the bed of the SCR, as project components only occur along the northern bank (i.e., soil cement bank protection) or above the northern bank (i.e., sewer line installation, access road development). Migrating wildlife would have the ability to traverse around the work area (i.e., to the south) during construction and continue migrating through the SCR channel. In addition, implementation of BMPs in accordance with AMM BIO-1, including measures to prevent wildlife entrapment (e.g., sloping trenches) would reduce potentially significant impacts to wildlife movement to a less-than-significant level. Moreover, with implementation of AMM BIO-8, construction along the northern bank of the SCR bed would occur when the river is dry (i.e., no flowing water). Therefore, impacts to resident or migratory fish would be less than significant.

The APE is located within the city of Santa Clarita (City), and the northwestern portion of the APE occurs in the Vista Canyon Specific Plan area. Natural resources within the APE are regulated according to the City's General Plan and Vista Canyon Specific Plan, which focus on conservation of existing natural areas; restoration of damaged natural vegetation; protection of wetlands, oak trees, and other indigenous woodlands and endangered or threatened species and habitat; and protection of biological resources in Significant Ecological Areas (SEA) and significant wildlife corridors. With implementation of AMMs BIO-1 through BIO-11, impacts to biological resources would be less than significant and the project would not conflict with policies protecting biological resources in the City of Santa Clarita General Plan or Vista Canyon Specific Plan. Parkway trees and oak trees (*Quercus* spp.) in the city are protected by the City's Oak Tree Preservation Ordinance and Parkway Trees Ordinance. The proposed project would not impact any trees protected by these ordinances and would not conflict with local policies or ordinances regarding trees.

The project site is located partially within the Santa Clara River SEA. The Santa Clara River SEA covers the length of the SCR and encompasses a wide variety of topographic features and habitat types. The orientation and extent of the SEA extends from the SCR's headwater tributaries and watershed basin to the point at which it exits Los Angeles County. Project construction would potentially affect the SEA and its biological resources due to construction activity in the APE. While the project would not be subject to the City's building and zoning ordinances (Santa Clarita Municipal Code Titles 17 and 18) pursuant Government Code Section 53091, SCV Water would voluntarily comply with the City's code through the implementation of measures to reduce impacts (refer to AMMs BIO-1 through BIO-11) such that the project would be compliant with the City's code.

1 Introduction

Rincon Consultants, Inc. (Rincon) prepared this Biological Resources Assessment (BRA) Report for the Santa Clarita Valley Water Agency (SCV Water) to document existing conditions and provide a basis for evaluation of potential impacts to special-status and sensitive biological resources associated with the Sand Canyon Sewer Relocation Project (project) in the city of Santa Clarita (City), Los Angeles County, California (Figure 1).

1.1 Project Location

The approximately 2.4-acre project site is located in the eastern portion of the City. The approximately 0.7-mile sewer line would begin on an overbank adjacent to the north of the Santa Clara River (SCR; Figure 2a-Figure 2b) and south of State Route (SR) 14. The sewer line would travel generally east to Sand Canyon Road, where it would redirect north along Sand Canyon Road, then redirect and terminate east in two locations near existing commercial uses. The project site is located south of SR-14. A majority of the project site is located in an undeveloped area to the north of the SCR, as well as along the northern bank of the SCR. Residential uses are also located adjacent to the north of the project site. A portion of the project site is located along Sand Canyon Road and terminates near existing commercial uses east of the right-of-way.

The approximate center of the project site is located at latitude 34.422051 and longitude -118.425283 (WGS84). The project site is located in Township 04 North, Range 15 West, Sections 14 and 23 of the United States Geological Survey (USGS) *Mint Canyon, California* 7.5-minute topographic quadrangle (USGS 2023a). The Area of Potential Effects (APE) associated with the project includes the project site and a 100-foot buffer.

1.2 Project Description

The proposed project includes construction of approximately 3,500 linear feet of new 21-inch and 15-inch sewer pipeline on the north side of the SCR. An existing sewer line extends east from Vista Canyon Boulevard at the SR-14 undercrossing within the SCR, crosses under the Sand Canyon Road bridge, and terminates approximately 600 feet east of the bridge. The purpose of the proposed project is to relocate the existing sewer line from within the flow path of the SCR into the adjacent overbank.

The easternmost end of the proposed sewer line 3rcutd be located within Sand Canyon Road and would terminate east of Sand Canyon Road near existing commercial uses. The westernmost end of the sewer line would connect to the existing sewer line west of Mitchell Hill. The estimated area of temporary impact totals approximately 104,000 square feet. The project site, which includes the temporary impact footprint, is depicted in Figure 2a-Figure 2b. Site plans are included in Appendix A.

The existing sewer line would be abandoned-in-place. The proposed project also includes the development of a 12-foot-wide paved access road, and soil cement bank protection for the proposed sewer line along the northern bank of the SCR where the bank is unstable and subject to erosion. The access road would generally overlap the new pipeline, but would deviate from the proposed alignment where jack-and-bore construction is proposed. The access road would also

include the installation of two 16-foot-wide bridges across existing drainage features (Intermittent Drainage 1 and Ephemeral Drainage 1). The bridges would be constructed using a pre-cast arch design, with the footings located along the banks of the drainage features. The footings for the bridges would include a permanent impact area approximately 35 feet wide and 15 feet long.

Construction Activities

Construction would begin in early 2025 and would occur over the course of approximately four months. Construction would occur from 8:00 a.m. to 5:00 p.m., Monday through Friday. Construction activities would involve removal of existing pavement, site preparation, grading, trench preparation, pipe laying, and repaving. While open trenching would be used to install a majority of the sewer line, jack-and-bore would be used to install approximately 500 linear feet of the sewer line along Mitchell Hill. Excavation would range from approximately 6 to 11 feet deep, including for both the pipeline and the jack-and-bore pits. Construction equipment associated with the 12-foot-wide access road would temporarily use an additional 8 feet on either side of the proposed road. Construction equipment associated with pipeline excavation areas that do not underlie the access road would require a work area width of 20 feet.

The proposed 4rcuttit would involve approximately 5,800 cubic yards of cut and 3,400 cubic yards of fill. Approximately 2,400 cubic yards of soil would be exported from the project site and no soil would be imported. Construction activities would require a temporary one-lane closure along northbound Sand Canyon Road. Traffic control measures would be implemented during lane closures, including flaggers at both ends. Construction equipment staging and worker parking would occur adjacent to Vista Canyon Boulevard and the northern bank of the SCR.

Operation and Maintenance

Upon completion of construction, the project would not require new operations and maintenance activities or electricity consumption beyond existing operations. The anticipated minimum lifetime of the proposed sewer line is 50 years.

Figure 1 Regional Location

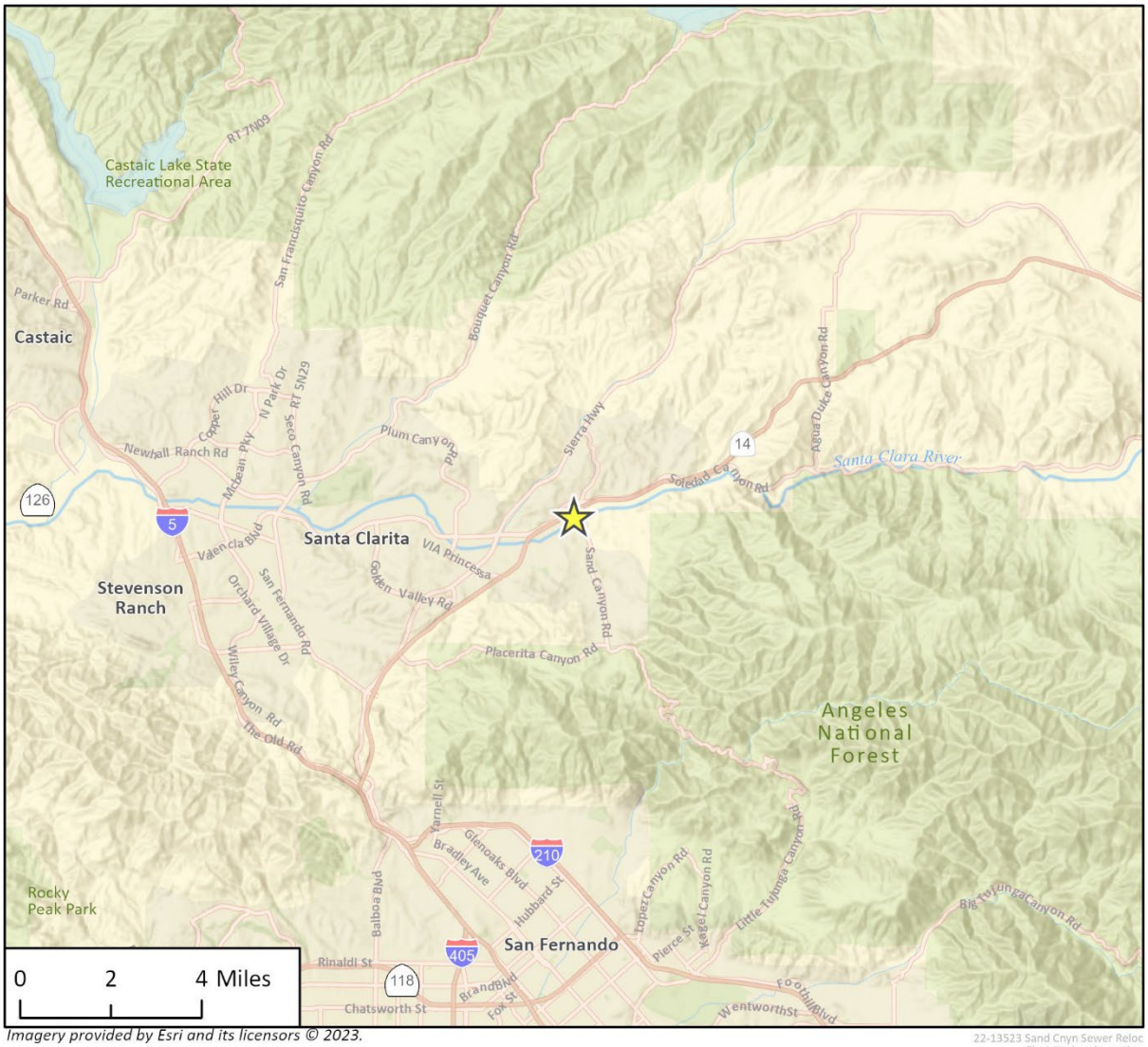

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Fig 1 Regional Location

Project Location

N

Figure 2a APE – West

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Fig 2A Area of Potential Effects

Figure 2b APE – East

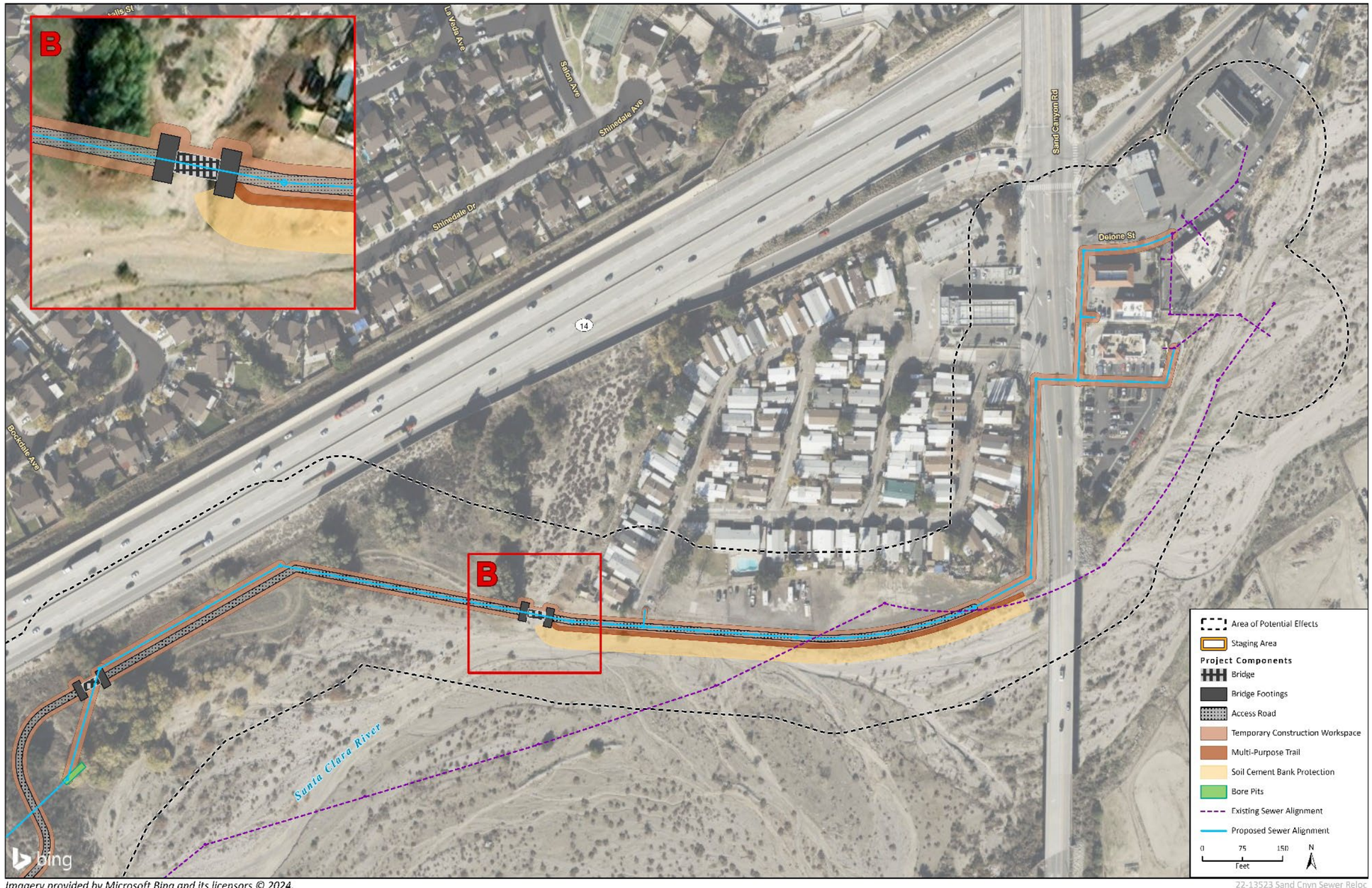

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Fig 2B Area of Potential Effects

2 Methodology

2.1 Regulatory Overview

Regulated or sensitive resources studied and analyzed herein include special-status plant and animal species, nesting birds and raptors, sensitive plant communities, jurisdictional waters and wetlands, wildlife movement, and locally protected resources, such as protected trees. Regulatory authority over biological resources is shared by federal, state, and local authorities. Primary authority for regulation of general biological resources lies within the land use control and planning authority of local jurisdictions.

Definition of Special-status Species

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

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

Environmental Statutes

For the purpose of this report, the analysis of potential impacts to biological resources was guided by the following statutes (described in detail in Appendix B):

- California Environmental Quality Act (CEQA);
- FESA;
- CESA;
- Federal Clean Water Act (CWA);
- CFGC;
- Migratory Bird Treaty Act (MBTA);
- The Bald and Golden Eagle Protection Act;
- Porter-Cologne Water Quality Control Act;
- City of Santa Clarita General Plan; and
- Santa Clarita Municipal Code.

Guidelines for Determining CEQA Significance

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

a) *Have substantial adverse effects, either directly or through habitat modifications, on any species identified as a candidate, sensitive or special status species in local or regional plans, policies, or regulations, or by the CDFW 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 CDFW 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.*

2.2 Literature Review

Queries of the United States Fish and Wildlife Service (USFWS) Information, Planning and Conservation System (USFWS 2023a), CDFW California Natural Diversity Database (CNDDB; CDFW 2023a), and the CNPS Online Inventory of Rare, Threatened and Endangered Plants of California (CNPS 2023a) were conducted to obtain comprehensive information regarding state and federally listed species as well as other special-status species considered to have potential to occur with the *Mint Canyon, California* USGS 7.5-minute topographic quadrangle and the surrounding eight quadrangles (*Agua Dulce, Sunland, San Fernando, Oat Mountain, Newhall, Warm Springs Mountain, Green Valley, and Sleepy Valley*). The results of these scientific database queries were compiled into a table that is presented in Appendix C.

In addition, the following resources were reviewed for information about the APE:

- Aerial photographs (Google Earth Pro 2023);
- *Mint Canyon, California* USGS 7.5-minute topographic quadrangle (USGS 2023a);
- United States Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS) Web Soil Survey (USDA NRCS 2023a);
- USFWS Critical Habitat Portal (USFWS 2023b);
- USFWS National Wetland Inventory (NWI; USFWS 2023c); and
- USGS National Hydrography Dataset (NHD; USGS 2023b).

2.3 Field Reconnaissance Survey

A field reconnaissance survey was conducted within the APE to document the existing conditions and to evaluate the potential for presence of regulated biological resources in the APE, including special-status plant and wildlife species, sensitive plant communities, potential jurisdictional waters of the U.S./state and wetlands, and habitat for federally and state protected nesting birds.

The field reconnaissance survey was conducted by Rincon Biologist Kyle Gern on August 1, 2023, from 0800 to 1530. Weather conditions during the survey included clear skies with temperatures ranging from 72 degrees Fahrenheit (°F) to 93°F and winds ranging from approximately one to five miles per hour. The entire APE, with the exception of the proposed staging area, was surveyed on foot, and all biological resources encountered in the APE were recorded. The proposed staging area was surveyed by Mr. Gern on October 16, 2023, from 0900 to 1100, with clear skies, temperatures ranging from 65°F to 75°F, and winds ranging from one to two miles per hour.

Representative photographs of the APE were taken (Appendix D), and an inventory of all plant and wildlife species observed was compiled (Appendix E). Natural and semi-natural vegetation community classification was based using *A Manual of California Vegetation, Second Edition* (MCV2; Sawyer et al. 2009), which establishes systematic classifications and definitions of vegetation communities. Updates to the MCV2 provided in the online database (CNPS 2023b) were taken into consideration. Each vegetation mapping unit was analyzed for characteristics to define the applicable vegetation community, such as dominant or co-dominant plant species and community membership rules. Additionally, land covers were characterized in areas that appeared to be altered by anthropogenic activities and were dominated by non-native or ornamental vegetation (e.g., developed, disturbed).

2.4 Jurisdictional Delineation

Information in the report related to jurisdictional waters is based on a formal jurisdictional delineation conducted by Mr. Gern on August 4 and October 16, 2023. The delineation mapped and recorded the extent of potential waters of the U.S., CDFW-jurisdictional streambeds, and/or waters of the state. Current federal and state policies, methods, and guidelines were used to identify and delineate potential jurisdictional areas (described in Appendix B). Data collection in the APE was focused on areas containing a potential waterway, and Sample Points (SPs) were chosen at locations that were best representation of the conditions within the APE. The Ordinary High Water Mark (OHWM) and Wetland Determination Data Forms are included in Appendix F. Current federal and state policies, methods and guidelines were used to identify and delineate potential jurisdictional areas and are described in detail below.

Non-Wetland Waters of the United States

The lateral limits of USACE jurisdiction (i.e., width) for non-wetland waters were determined by the presence of physical characteristics indicative of the OHWM. The OHWM was identified in accordance with the applicable Code of Federal Regulations (CFR) sections (33 CFR 328.3 and 33 CFR 328.4) and Regulatory Guidance Letter 05-05 (USACE 2005), as well as in reference to various relevant technical publications, including, but not limited to: *Review of Ordinary High Water Mark Indicators for Delineating Arid Streams in the Southwestern United States* (USACE 2004), *Distribution of Ordinary High Water Mark (OHWM) Indicators and Their Reliability in Identifying the Limits of "Waters of the United States" in Arid Southwestern Channels* (USACE 2006), and *A Field Guide to*

Identification of the Ordinary High Water Mark (OHWM) in the Arid West Region of the United States (USACE 2008b), *Updated Datasheet for the Identification of the Ordinary High Water Mark (OHWM) in the Arid West Region of the Western United States* (USACE 2010), and *Joint Memorandum to the Field Between the U.S. Department of the Army, Corps of Engineers and the U.S. Environmental Protection Agency Concerning Exempt Construction or Maintenance of Irrigation Ditches and Exempt Maintenance of Drainage Ditches Under Section 404 of the Clean Water Act* (USACE and USEPA 2020). The regulations were also reviewed in the determination of non-jurisdictional features including artificially irrigated areas and roadway ditches excavated in uplands.

Rincon evaluated sources of water, potential connections and distances to Traditional Navigable Waters (TNWs), streams that are perennial or intermittent in nature and other factors that affect whether waters qualify as "waters of the U.S." under current USACE regulations (33 CFR 328.3), including, but not limited to, the recent *Sackett v. USEPA* court ruling. A more detailed regulatory definition of USACE jurisdiction can be found in Appendix B.

Wetland Waters of the United States

Potential wetland features were evaluated for presence of wetland indicators; specifically, hydrophytic vegetation, hydric soils, and wetland hydrology, according to routine delineation procedures within the *Wetlands Delineation Manual* (USACE 1987) and *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region* (USACE 2008a). The 2020 USACE *Arid West Regional Wetland Plant List* was originally used to determine the wetland status of the examined vegetation by the following indicator status categories: Upland (UPL), Facultative Upland (FACU), Facultative (FAC), Facultative Wetland (FACW), and Obligate Wetland (OBL; USACE 2020). Representative sample points were sited in aeras most likely to exhibit wetland characteristics, i.e., a prevalence of hydrophytic vegetation and suitable landform, and examined in the field for potential wetland indicators. Sample points were not conducted in areas with an obvious prevalence of upland vegetation or in areas where the landform would not support wetland features, i.e., concrete channels and sloped areas. A more detailed regulatory definition of USACE jurisdiction can be found in Appendix B.

Waters of the State

The limits of "waters of the state," as defined under the Porter-Cologne Water Quality Control Act, are any surface water or groundwater, including saline waters, within the boundaries of the state. In those areas where an OHWM was present, the OHWM was determined to represent the limits of waters of the state based on current interpretation of jurisdiction by the Los Angeles RWQCB. In those areas where an OHWM was not present, but surface water was present, i.e., roadside ditches that are hydrologically connected to tributaries and TNWs, the limits of waters of the state were determined to be bounded by the top of slope or top of "bank."

Potential state wetland features were evaluated pursuant to the State Water Resources Control Board's (SWRCB) *State Wetland Definition and Procedures for Discharges of Dredged or Fill Material to Waters of the State* (SWRCB 2019). Potential state wetlands were evaluated following the SWRCB's definition, which relies on the same three parameters as the USACE definition (hydrophytic vegetation, wetland hydrology, and hydric soils) but allows for naturally unvegetated areas meeting the other two parameters to be considered wetlands. A more detailed regulatory definition of RWQCB jurisdiction can be found in Appendix B.

CDFW Streambeds

The extent of potential streambeds, streambanks, lakes and riparian habitat subject to CDFW jurisdiction under Sections 1600 *et seq*. of the California Fish and Game Code was delineated by reviewing the topography and morphology of potentially jurisdictional features to determine the outer limit of riparian vegetation, where present, or the tops of banks for stream features. A more detailed regulatory definition of CDFW jurisdiction can be found in Appendix B.

3 Existing Conditions

This section summarizes the existing conditions of the APE and results of biological resource field database inquiries and field surveys. Brief discussions regarding the general physical characteristics within the APE, the watershed and drainages, soils, vegetation and land cover types, and general wildlife species, are presented below. Representative photographs of the APE are provided in Appendix D, and complete lists of all plant and wildlife species observed within the APE are presented in Appendix E.

3.1 Physical Characteristics

The APE is situated in a region that is characterized by a Mediterranean climate with warm, dry summers and cool, wet winters. Average high temperatures range from 77 to 89°F and average low temperatures range from 61 to 68°F. The average annual precipitation in the region is 15.56 inches with the majority falling in February (Western Regional Climate Center 2023).

The topography of the APE is generally level. Elevation ranges between approximately 1,500 and 1,580 feet above mean sea level (amsl). In the northern portion of the APE north of the SCR, the terrain is generally flat. The southern portion of the APE slopes downward from north to south toward the SCR channel.

Watershed and Drainages

The APE is located within the SCR watershed (Hydrologic Unit Code [HUC]-8 Number [No.] 18070102; USGS 2023a). The SCR originates in the northern slopes of the San Gabriel Mountains in Los Angeles County, traverses Ventura County, and eventually flows into the Pacific Ocean between the cities of San Buenaventura (Ventura) and Oxnard. Significant tributaries within the watershed include Piru, Sespe, Santa Paula, Hopper, Pole, and Castaic Creeks; San Francisquito and Bouquet Canyon; and South Fork SCR. The hydrology of the SCR is highly variable, and flows vary seasonally.

Specifically, the APE is located within the Headwaters SCR Watershed (HUC-10 No. 1807010201), and the Sand Canyon – SCR subwatershed (HUC-12 No. 180701020107). The Headwaters SCR Watershed encompasses a total area of approximately 152,907 acres. Historical records and current observations indicate that the Headwaters SCR watershed generally produces an intermittent flow regime, with flows increasing during the winter months (November through March), and declining throughout the summer months (USFWS 2023c). The SCR flows from northeast to southwest in the southern portion of the APE. The NWI and NHD identify the SCR as an intermittent riverine system in the APE, which coincides with Rincon's field observations (Figure 3a-Figure 3b). The SCR flows in a southwesterly direction through the cities of Santa Clarita, Fillmore, Santa Paula, and Ventura and eventually connects to the Pacific Ocean, which is a Traditional Navigable Water (TNW). Immediately south of the central portion of the APE is the confluence between Sand Canyon Creek and the SCR. The NWI identifies Sand Canyon Creek as an intermittent drainage (USFWS 2023c), and the NHD identifies Sand Canyon Creek as an ephemeral drainage (USGS 2023b).

Figure 3a NWI and NHD Resources – West

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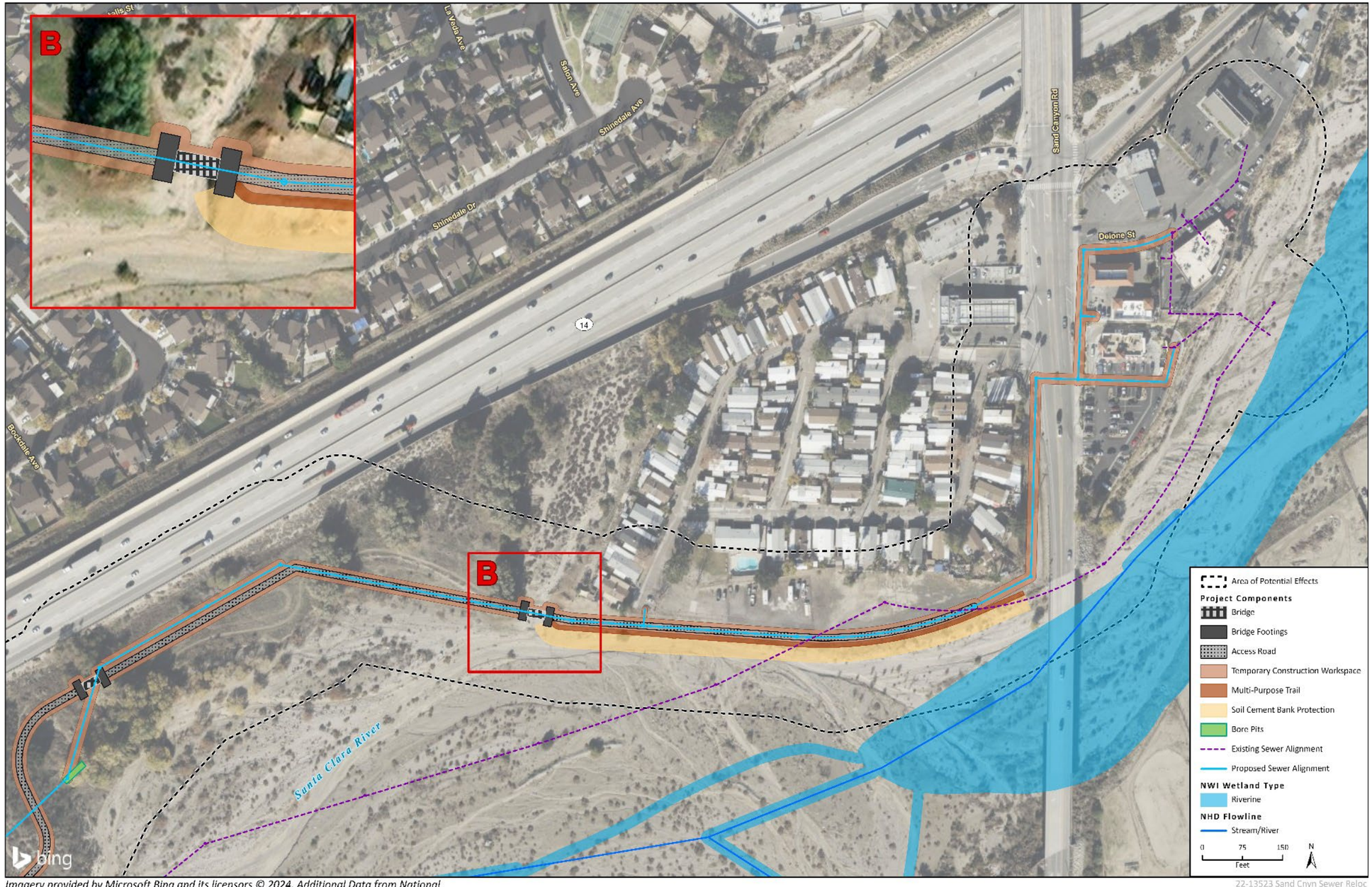
Additional Data from National Hydrology Dataset and National Wetland Inventory, 2024.

22-13523 Sand Cnyn Sewer Reloc
Fig 3A NHD NWI

Figure 3b NWI and NHD Resources – East



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22-13523 Sand Cnyn Sewer Reloc
Fig 3B NHD NWI

One intermittent tributary (Intermittent Drainage 1) is not mapped by the NWI or NHD. Intermittent Drainage 1 flows in a southerly direction underneath SR-14 and converges with the SCR along its northern bank. Intermittent Drainage 1 is culverted underneath SR-14 via an eight-foot-wide and eight-foot-tall concrete box culvert. In addition, one ephemeral drainage feature (Ephemeral Drainage 1) that is not mapped by the NWI or NHD also flows into the SCR along the northern bank. This feature is also culverted underneath SR-14 outside the APE to the north.

The mapping presented in the NHD and NWI provides useful context but is not a completely accurate depiction of current existing conditions or the extent of jurisdictional waters in the APE.

Soils

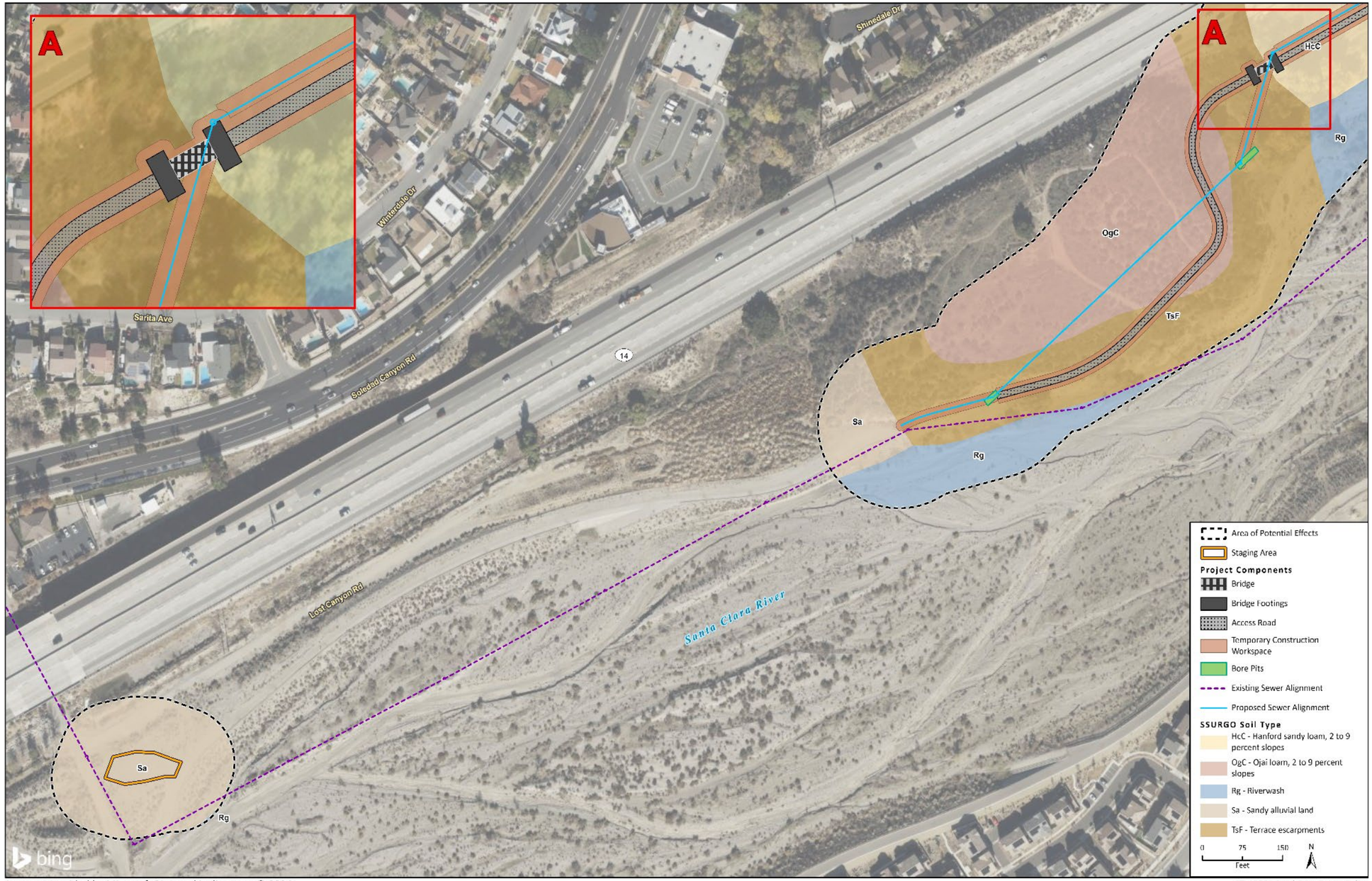
According to the NRCS Web Soil Survey, seven soil map units are mapped within the APE (USDA NRCS 2023a; Figure 4a-Figure 4b). Three soil map units are included on the National Hydric Soils List (USDA NRCS 2023b), as indicated below in Table 1.

Table 1 Soils in the APE

Soil Map Units	Hydric Soil[1]?
Cortina sandy loam, 2 to 9 percent slopes	No
Hanford sandy loam, 2 to 9 percent slopes	No
Ojai loam, 2 to 9 percent slopes	Yes
Riverwash	Yes
Saugus loam, 30 to 50 percent slopes, eroded	No
Sandy alluvial land	Yes
Terrace escarpments	No

[1]Soils listed on the National Hydric Soils List (USDA, NRCS 2023b).

Figure 4a USDA NRCS Soil Survey Mapping – West



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Additional data from SSURGO, 2024.

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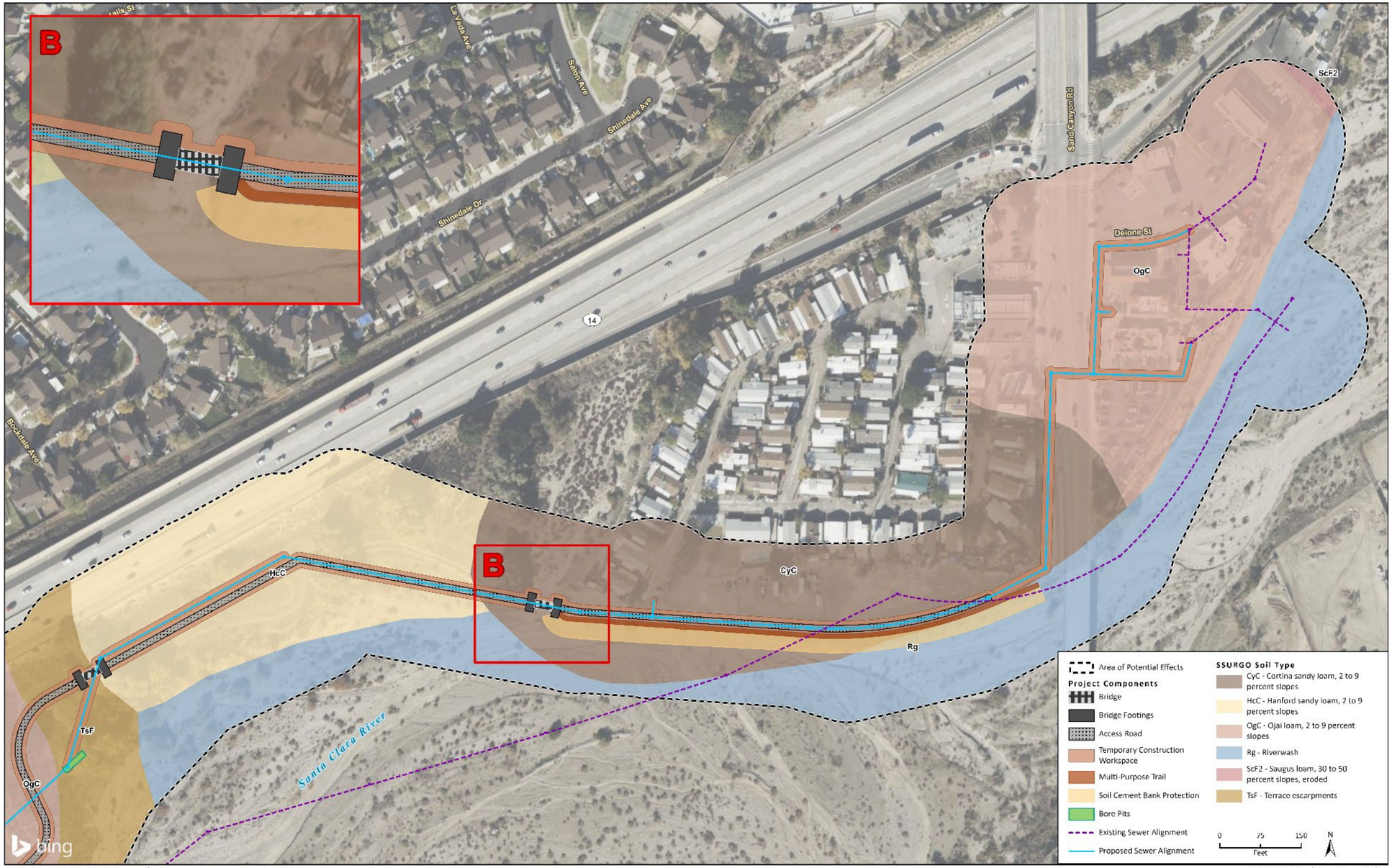
Fig 4A Soils

Figure 4b USDA NRCS Soil Survey Mapping – East



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Additional data from SSURGO, 2024.

3.2 Vegetation and Other Land Cover

Seventeen vegetation communities and three land cover types were identified within the APE as described below and depicted in Figure 5a-Figure 5b. A list of plant species encountered during the field reconnaissance survey is provided in Appendix E.

3.2.1 Tree-Dominated Communities

Fremont Cottonwood Forest and Woodland

Fremont cottonwood forest and woodland (*Populus fremontii* Forest and Woodland Alliance) is characterized by areas dominated by Fremont cottonwood (*Populus fremontii* ssp. *fremontii*) in the tree canopy with willows (*Salix* spp.) and other riparian trees such as western sycamore (*Platanus racemosa*) present as well. Fremont cottonwood accounts for approximately 10 to 80 percent absolute cover and greater than 50 percent relative cover in the tree layer. The tree canopy ranges from continuous to open, the shrub layer intermittent to open, and the herbaceous layer is variable (Sawyer et al. 2009). This alliance can be found on floodplains, along low-gradient rivers and perennial or seasonally intermittent streams, near springs, in canyons, on alluvial fans, and in valleys with a dependable subsurface water supply that varies considerably during the year. Fremont cottonwood forest and woodland is ranked G4S3 and is classified as a sensitive natural community by the CDFW (CDFW 2023b).

The Fremont cottonwood forest and woodland vegetation community is present along the northern bank of the SCR adjacent to the active channel within the APE (Figure 5a-Figure 5b). This vegetation community is also associated with the active channel of Intermittent Drainage 1 in the central portion of the APE. Within the APE, Fremont cottonwood is dominant in the dense tree layer, with western sycamore, red willow (*Salix laevigata*), velvet ash (*Fraxinus velutina*), common fig (*Ficus carica*), coast live oak (*Quercus agrifolia*), and athel tamarisk (*Tamarix aphylla*) present as subdominant in the tree layer (Appendix D, Photographs 7, 10-11, 26-27, 31-32). The tree layer accounts for approximately 40 to 70 percent absolute cover. The shrub layer is dominated by mulefat (*Baccharis salicifolia*) and sandbar willow (*Salix exigua*), with scale broom (*Lepidospartum squamatum*), castor bean (*Ricinus communis*), and rubber rabbitbrush (*Ericameria nauseosa*) present as subdominant species. Giant reed (*Arundo donax*) is dominant in the herbaceous layer, with cattails (*Typha* spp.), tall flatsedge (*Cyperus eragrostis*), red brome (*Bromus rubens*), slender wild oats (*Avena barbata*), and summer mustard (*Hirschfeldia incana*) present as subdominant species.

Tamarisk Thickets

Tamarisk thickets (*Tamarix* spp. Shrubland Alliance) are characterized by tamarisk (*Tamarix* spp.) dominant in the shrub or low tree layer. Most tamarisk species are provided a rating of high by the California Invasive Plant Council (Cal-IPC 2023), indicating these species have severe ecological impacts on physical processes, plant and animal communities, and vegetation structure. Emergent native shrubs or trees may be present at low cover, including Fremont cottonwood or willows (*Salix* spp.). Tamarisk has at least three percent absolute cover or 60 percent relative cover in the shrub or low tree layer. This alliance can be found between 246 and 2,625 feet amsl (Sawyer et al. 2009). This vegetation community is ranked Global Not Applicable/State Not Applicable (GNA/SNA) due to the dominance of non-native species and is not classified as sensitive (CDFW 2023b).

Tamarisk thickets occur above and along the northern bank of the SCR in the central portion of the APE (Appendix D, Photograph 30). Athel tamarisk is overwhelmingly dominant in the dense shrub and tree layer, with tree tobacco (*Nicotiana glauca*) and blue elderberry (*Sambucus mexicana*) present as subdominant species. The herbaceous layer is largely dominated by exotic annual grasses and forbs such as ripgut brome (*Bromus diandrus*), red brome, and slender wild oats.

3.2.2 Shrub-Dominated Communities

Big Sagebrush Scrub

Big sagebrush scrub (*Artemisia tridentata* Shrubland Alliance) is typically found within plains, alluvial fans, bajadas, pediments, lower slopes, valley bottoms, hills, ridges, seasonal and perennial stream channels, and dry washes between 984 and 9,840 feet amsl. Big sagebrush (*Artemisia tridentata* ssp. *tridentata*) constitutes at least two percent absolute cover in the shrub layer, with no other single species with greater cover. This vegetation community is ranked G5S5 and is not classified as sensitive (CDFW 2023b).

Big sagebrush scrub occurs in the western portion of the APE to the northwest of the proposed staging area. Big sagebrush is dominant in the open shrub layer, with rubber rabbitbrush present as subdominant. Red brome and summer mustard occur in the herbaceous layer. The tree layer is absent.

Brittle Bush Scrub

Brittle bush scrub (*Encelia farinosa* Shrubland Alliance) is typically found on alluvial fans, bajadas, colluvium, rocky hillsides, and slopes of small washes and rills. Soils are well drained, rocky, and may be covered by desert pavement. This alliance is generally found between 246 and 4,594 feet amsl. Brittle bush scrub is characterized by an open to intermittent shrub canopy and a seasonal herbaceous layer. Brittle bush (*Encelia farinosa*) has over one percent absolute cover and 30 percent relative cover in the shrub layer (Sawyer et al. 2009). This vegetation community is ranked G5S4 and is not classified as sensitive (CDFW 2023b).

Brittle brush scrub occurs in the western portion of the APE immediately adjacent to Lost Canyon Road, as well as in the central portion of the APE immediately south of SR-14 (Appendix D, Photograph 24). Brittle bush is dominant in the open shrub layer, with rubber rabbitbrush and California buckwheat (*Eriogonum fasciculatum*) present as subdominant. Rattail fescue (*Festuca myuros*) is dominant in the herbaceous layer, with slender wild oats, red brome, and redstem filaree (*Erodium cicutarium*) present as subdominant. The tree layer is absent.

California Buckwheat Scrub

California buckwheat scrub (*Eriogonum fasciculatum* Shrubland Alliance) is characterized by dominant or codominant California buckwheat in cismontane stands. California buckwheat scrub is found in upland slopes, intermittently flooded arroyos, channels and washes, and rarely flooded low-gradient deposits. Elevations range from sea level to 3,937 feet amsl. Soils are typically course, well drained, and moderately acidic to slightly saline. California buckwheat contributes to at least 50 percent relative cover in the shrub layer (Sawyer et al. 2009). This community is ranked G5S5 and is not classified as sensitive (CDFW 2023b).

Figure 5a Vegetation Communities and Land Cover Types – West

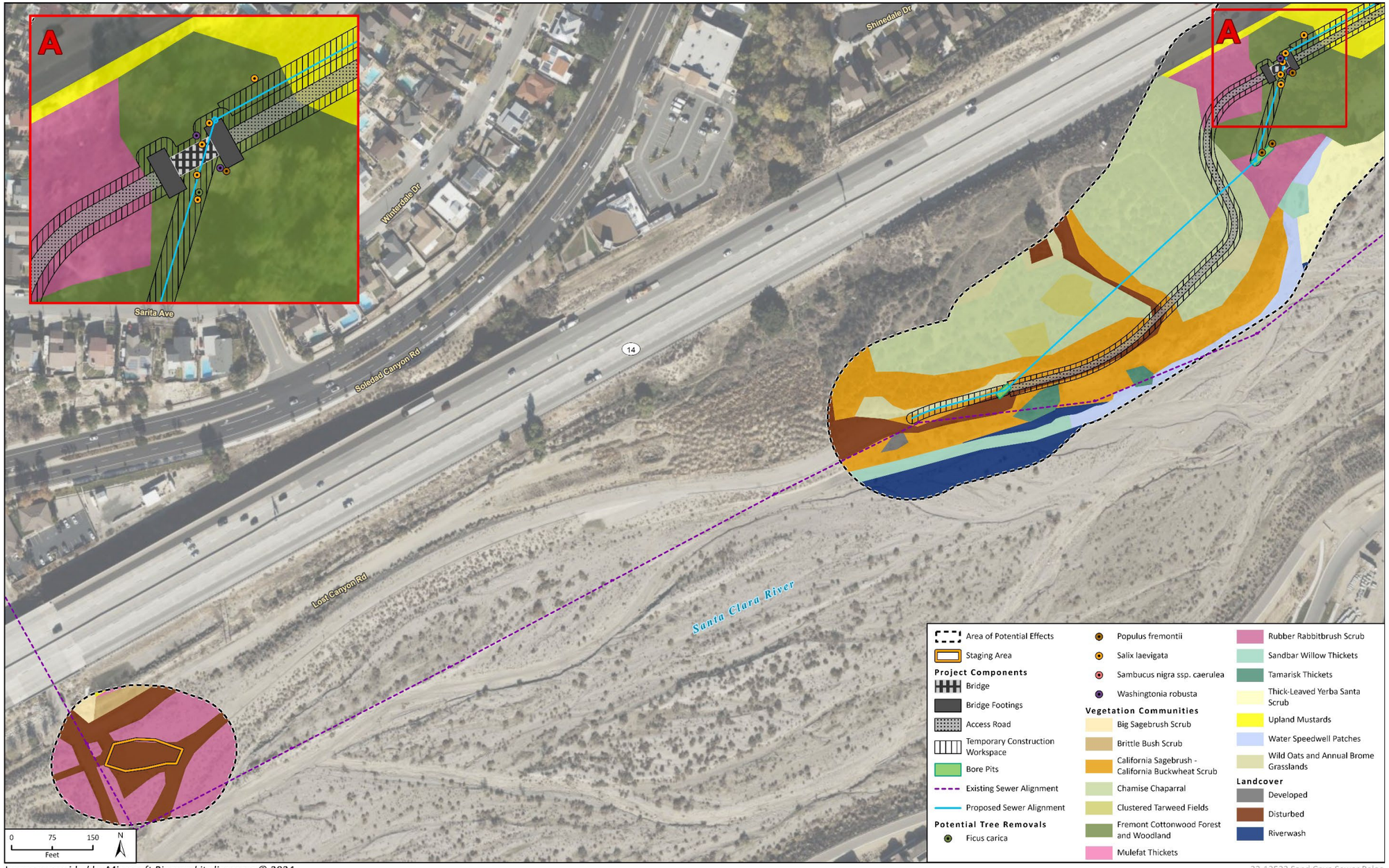

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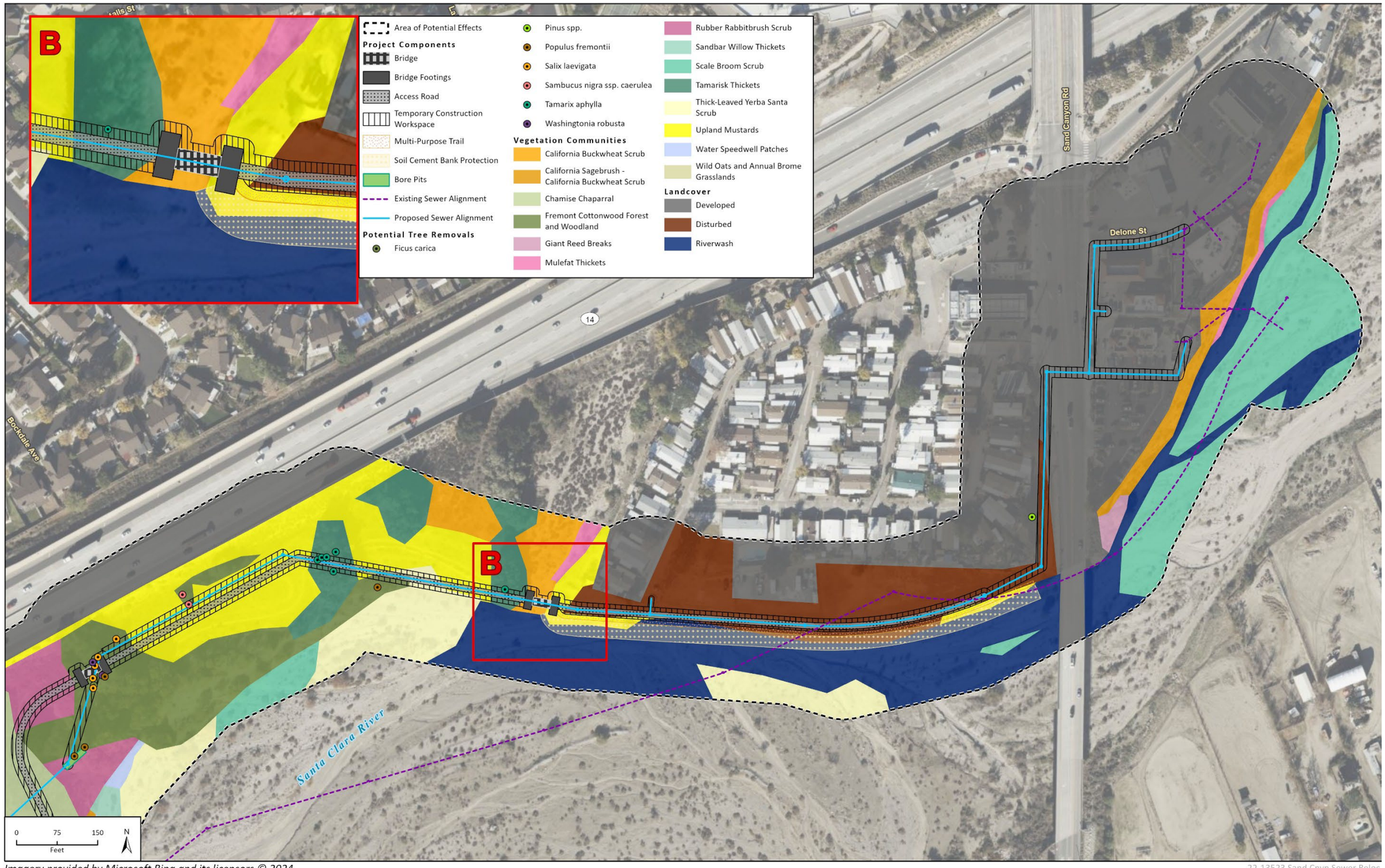
Fig 5A Vegetation Communities & Land Cover Type

Figure 5b Vegetation Communities and Land Cover Types – East



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22-13523 Sand Cnyn Sewer Reloc
Fig 5B Vegetation Communities & Land Cover Type

California buckwheat scrub occurs above and along the northern bank of the SCR in the central portion of the APE (Appendix D, Photograph 17). California buckwheat is dominant in the open to continuous shrub layer, with Palmer's goldenbush (*Ericameria palmeri*) and chaparral yucca (*Hesperoyucca whipplei*) present as subdominant species in the shrub layer. The herbaceous layer is largely dominated by exotic annual grasses and forbs such as ripgut brome, red brome, and slender wild oats, but also includes native species such as Menzies' fiddleneck (*Amsinckia menziesii*) and common sandaster (*Corethrogyne filaginifolia*). The tree layer is absent.

California Sagebrush – California Buckwheat Scrub

California sagebrush – California buckwheat scrub (*Artemisia californica – Eriogonum fasciculatum* Shrubland Association) is typically found along steep upland slopes that are rarely flooded, and low-gradient deposits along streams, between sea level and 3,940 feet amsl (Sawyer et al. 2009). Soils are typically alluvial or colluvial derived. California sagebrush (*Artemisia californica*) and California buckwheat collectively contribute between 30 and 60 percent relative cover in the shrub layer. This vegetation community is ranked G4S4 and is not classified as sensitive (CDFW 2023b).

California sagebrush – California buckwheat scrub occurs above the northern bank of the SCR in the northern portion of the APE (Appendix D, Photograph 6). California sagebrush and California buckwheat are codominant in the shrub layer, with chamise (*Adenostoma fasciculatum*), thick-leaved yerba santa (*Eriodictyon crassifolium*), Palmer's goldenbush, chaparral yucca, and big sagebrush present as subdominant species in the shrub layer. The herbaceous layer is largely dominated by exotic annual grasses and forbs such as ripgut brome, red brome, and slender wild oats, but also includes native species such as clustered tarweed (*Deinandra fasciculata*), Menzies' fiddleneck, common sandaster, and Turkish rugging (*Chorizanthe staticoides*). The tree layer is absent.

Chamise Chaparral

Chamise chaparral (*Adenostoma fasciculatum* Shrubland Alliance) is widespread on shallow soils over colluvium and many kinds of bedrock between 32 and 5,900 feet amsl. Chamise contributes to at least 50 percent relative cover in the shrub layer, and the shrub canopy ranges from intermittent to continuous (Sawyer et al. 2009). This vegetation community is ranked G5S5 and is not considered sensitive (CDFW 2023b).

Chamise chaparral occurs in the northwestern portion of the APE along a terrace above the banks of the SCR (Appendix D, Photograph 8). Chamise is dominant in the open to intermittent shrub layer, with California buckwheat and California sagebrush present as subdominant. Slender wild oats (*Avena barbata*) are dominant in the herbaceous layer, with red brome, Turkish rugging, clustered tarweed, and common sandaster present as subdominant. A few scattered California junipers (*Juniperus californica*) occur in the tree layer.

Mulefat Thickets

Mulefat thickets (*Baccharis salicifolia* Shrubland Alliance) are typically found in canyon bottoms, floodplains, irrigation ditches, lake margins, and stream channels at elevations between sea level and 4,100 feet amsl. Soils are mixed alluvium (Sawyer et al. 2009). Mulefat contributes to at least 30 percent relative cover in the shrub canopy. This vegetation alliance is ranked G4S4 and is not classified as sensitive (CDFW 2023b).

The mulefat thickets vegetation community is present along the northern bank of the SCR in the northwestern portion of the APE. This vegetation community also occurs in the low flow channel of Ephemeral Drainage 1 and in the southern portion of the sediment basin in the western portion of the APE near the proposed staging area (Figure 5b). Within the APE, mulefat is dominant in the shrub layer, with brittle bush present as subdominant. The herbaceous layer includes summer mustard and red brome, and the tree layer includes scattered Fremont cottonwood saplings.

Rubber Rabbitbrush Scrub

Rubber rabbitbrush scrub (*Ericameria nauseosa* Shrubland Alliance) occurs in all topographic settings, and especially in disturbed settings. Soils are typically well drained sands and gravels. This alliance is generally found between sea level and 10,500 feet amsl. Rubber rabbitbrush scrub is characterized by an open to intermittent shrub canopy and a sparse herbaceous layer. Rubber rabbitbrush has over two percent absolute cover or more than 25 percent relative cover in the shrub layer (Sawyer et al. 2009). This vegetation community is ranked G5S5 and is not classified as sensitive (CDFW 2023b).

Rubber rabbitbrush scrub occurs adjacent to the proposed staging area and Intermittent Drainage 1 (Figure 5a-Figure 5b). Rubber rabbitbrush is dominant in the open shrub layer, with deerweed (*Acmispon glaber*), allscale saltbush (*Atriplex polycarpa*), fragrant sumac (*Rhus aromatica*), scale broom, blue elderberry, and brittle brush present as subdominant species. Red brome is dominant in the herbaceous layer, with slender wild oats present as subdominant. The tree layer is absent.

Sandbar Willow Thickets

Sandbar willow thickets (*Salix exigua* Shrubland Alliance) are typically found on temporarily flooded floodplains, depositions along rivers and streams, and at springs between sea level and 8,860 feet amsl. This community is characterized by an intermittent to continuous shrub layer and a variable herbaceous layer. Sandbar willow has at least 30 percent relative cover in the shrub layer (Sawyer et al. 2009). This vegetation community is ranked G5S4 and is not classified as sensitive (CDFW 2023b).

The sandbar willow thickets vegetation community is present within the banks of the SCR immediately downstream of the confluence with Intermittent Drainage 1 (Figure 5a-Figure 5b). Within the APE, sandbar willow is dominant in the shrub layer, with mulefat and thick-leaved yerba santa present as subdominant species. The herbaceous layer includes water speedwell (*Veronica anagallis-aquatica*), white sweetclover (*Melilotus albus*), and perennial pepperweed (*Lepidium latifolium*). The tree layer is absent.

Scale Broom Scrub

Scale broom scrub (*Lepidospartum squamatum* Shrubland Alliance) is characterized by dominant, co-dominant, or conspicuous scale broom in a shrub canopy that is open to continuous, with emergent plants in low cover and an herbaceous layer that is variable and may be grassy. Shrubs are less than 6.5 feet tall. Scale broom scrub is found in areas that are intermittently or rarely flooded, and on low-gradient alluvial deposits along streams, washes, and fans. Elevation ranges from 164 to 4,921 feet amsl (Sawyer et al. 2009). Scale broom scrub is ranked G3S3 and is identified by the CDFW as a sensitive natural community (CDFW 2023b).

The scale broom scrub vegetation community occurs in the southern portion of the APE within the floodplain of the SCR (Figure 5b). Within the APE, native species commonly associated with this vegetation community include scale broom, chaparral yucca, California buckwheat, big sagebrush,

rubber rabbitbrush, tree tobacco, annual bursage (*Ambrosia acanthicarpa*), and emergent Fremont cottonwood. Non-native species observed within the vegetation community include various grasses and forbs such as red brome, summer mustard, and rattail fescue.

Thick-leaved Yerba Santa Scrub

Thick-leaved yerba santa scrub (*Eriodictyon crassifolium* Provisional Shrubland Association) is characterized by dominant thick-leaved yerba santa in the shrub canopy with other native species present as well. Emergent trees may also be present at low cover and include interior live oak (*Quercus wislizeni*). The thick-leaved yerba santa shrub canopy is intermittent and sometimes two tiered. This alliance can be found between 2,700 and 5,675 feet amsl (Sawyer et al. 2009). This vegetation community is ranked G5S5 and is not classified as sensitive (CDFW 2023b).

Thick-leaved yerba santa scrub occurs in the southern portion of the APE within the banks of the SCR (Appendix D, Photograph 13). Thick-leaved yerba santa is dominant in the open shrub layer, with scale broom, California buckwheat, athel tamarisk, rubber rabbitbrush, and golden aster (*Heterotheca sessiliflora*) present as subdominant species. Mediterranean grass (*Schismus barbatus*) is dominant in the herbaceous layer, with summer mustard, red brome, redstem filaree, and giant reed present as subdominant species. The tree layer is absent.

3.2.3 Herbaceous Communities

Clustered Tarweed Fields

Clustered tarweed fields (*Deinandra fasciculata* Herbaceous Alliance) are typically found along clay flats and bottomlands, edges of vernal pools, shallow pools, and alkaline flats between sea level and 2,953 feet amsl. Soils are poorly drained and consist of fine-textured alluvium with periodic or intermittent inundation, and may be underlain by claypan or other impervious layers. Clustered tarweed has greater than 30 percent relative cover or is seasonally present in the herbaceous layer with a variety of other annual herbaceous plants (Sawyer et at. 2009). This alliance is ranked G2S2 and is classified as sensitive (CDFW 2023b).

Clustered tarweed fields occur in the northwestern portion of the APE along a terrace above the banks of the SCR (Appendix D, Photograph 3). This vegetation community occurs in a mosaic with the chamise chaparral vegetation community. Clustered tarweed is dominant in the dense herbaceous layer, with Turkish rugging, slender wild oats, and red brome present as subdominant species. Scattered shrubs include chamise, California sagebrush, and California buckwheat. The tree layer is absent.

Giant Reed Breaks

Giant reed breaks (*Arundo donax* Herbaceous Semi-Natural Alliance) are found within riparian areas, along low-gradient streams and ditches, as well as within semi-permanently flooded and slightly brackish marshes and impoundments, from sea level to 5,249 feet amsl (Sawyer et al. 2009). Giant reed dominates the herbaceous layer. Giant reed is provided a rating of high by the California Invasive Plant Council (Cal-IPC 2023), indicating that the species has severe ecological impacts on physical processes, plant and animal communities, and vegetation structure. Its reproductive biology and other attributes are conducive to moderate to high rates of dispersal and establishment. This vegetation community is ranked GNA/SNA and is not classified as sensitive (CDFW 2023).

Giant reed breaks occur in the northeastern portion of the APE along the northern bank of the SCR adjacent to Sand Canyon Road (Appendix D, Photograph 21). Giant reed is dominant in the dense herbaceous layer, with summer mustard present as subdominant. Other species observed include scattered scale broom, Fremont cottonwood, and red brome.

Upland Mustards

Upland mustards (*Brassica nigra* Herbaceous Semi-Natural Alliance) is typically found in fallow fields, grasslands, roadsides, levee slopes, disturbed coastal scrub, riparian areas, cleared roadsides, and waste places at elevations between sea level and 9,186 feet amsl. Black mustard, summer mustard, wild radish (*Raphanus sativus*), or other mustards occur with non-native plants at over 80 percent cover in the herbaceous layer. This vegetation community is ranked GNA/SNA due to the dominance of non-native species and is not classified as sensitive (CDFW 2023b).

Upland mustards occur throughout the APE, with summer mustard and black mustard dominant in the dense herbaceous layer (Appendix D, Photograph 17). Subdominant herbaceous species include slender wild oats, red brome, prickly lettuce (*Lactuca serriola*), tocalote (*Centaurea melitensis*), ripgut brome, and rattail fescue. Scattered shrub species include California buckwheat and athel tamarisk. The tree layer is absent.

Water Speedwell Patches

Water speedwell patches occur in the southwestern portion of the APE and are associated with the SCR where surface water was present during the field survey. This vegetation community does not align with a defined alliance in the MCV2, but is provisionally characterized as the *Veronica anagallis-aquatica* Herbaceous Semi-Natural Alliance for the purposes of this BRA, to accurately characterize the vegetation occurring in this area.

This provisional vegetation community is dominated by water speedwell, which is overwhelmingly dominant in the herbaceous layer. Water speedwell is a non-native plant species that, although not listed by the Cal-IPC as invasive, can form dense stands in riparian areas and outcompete other plant species for resources (Cal-IPC 2023). Water speedwell accounts for more than 60 percent relative cover in the herbaceous layer. Other herbaceous species encountered in this vegetation community include perennial pepperweed, annual rabbitsfoot grass (*Polypogon monspeliensis*), white sweetclover, seep monkeyflower (*Erythranthe guttata*), curly dock (*Rumex crispus*), and common knotweed (*Persicaria lapathifolia*). Emergent mulefat and Fremont cottonwood occur at low cover. This vegetation community is not provided a rarity ranking by the CDFW as it is not listed (CDFW 2023b). However, due to the predominance of non-native species (i.e., water speedwell), this vegetation community is not characterized as sensitive for the purposes of this BRA.

Wild Oats and Annual Brome Grasslands

Wild oats and annual brome grasslands (*Avena* spp. – *Bromus* spp. Herbaceous Semi-Natural Alliance) are generally found in open areas in valleys and foothills throughout coastal and interior California. It typically occurs on soils consisting of fine-textured loams or clays that are somewhat poorly drained. Non-native annual grasses and weedy annual and perennial forbs, primarily of Mediterranean origin, dominate this vegetation type, probably as a result of human disturbance. Scattered native grass and wildflower species, representing remnants of the original vegetation may also be common (Sawyer et al. 2009). This vegetation alliance is ranked GNA/SNA due to the predominance of non-native species, and is not considered sensitive (CDFW 2023b).

Wild oats and annual brome grasslands occur in the western portion of the APE along a south-facing terrace above the banks of the SCR. This vegetation community is dominated by slender wild oats in the herbaceous layer, with red brome, tocalote, ripgut brome, and rattail fescue present as subdominant species. Scattered shrub species include California buckwheat and California sagebrush. The tree layer is absent.

3.2.4 Other Land Cover Types

Developed

Developed areas consist of buildings, other infrastructure, and paved areas with little to no vegetation (e.g., paved roads and unpaved roads, buildings, and concrete rip rap). Development is present north of the SCR in the APE (Figure 5a-Figure 5b). Developed areas are also present along the northern bank of the SCR, and include existing concrete rip rap that extends from the Sand Canyon Road bridge (Appendix D, Photograph 25 and 33).

Disturbed

Ruderal (weedy) plants grow in disturbed areas as a result of recent and continual surface soil disturbance. Disturbed areas typically contain a high percentage of bare ground and are dominated by non-native species. Due to the low plant species diversity and predominance of invasive weeds in most disturbed areas, the habitat value of this vegetation type is generally low, and these areas do not conform to a defined alliance in *A Manual of California Vegetation* (Sawyer et al. 2009).

The disturbed land cover type occurs adjacent to existing development (e.g., unpaved dirt roads, residential buildings, foot trails) in the northern portion of the APE (Figure 5a-Figure 5b). Non-native species commonly observed within this land cover type include annual non-native grasses and forbs such as ripgut brome, red brome, and black mustard (*Brassica nigra*).

Riverwash

Riverwash is present within the active channel of the SCR. This land cover type consists of sand and cobble which has accumulated in the channels and low terraces in the riverbed. Little to no vegetation is present. Riverwash is a naturally dynamic landform and may shift and change position depending on flood volumes and regularity. Portions of riverwash in the APE were disturbed by off highway vehicle use (Appendix D, Photographs 19-20).

3.3 General Wildlife

A total of 12 wildlife species were observed during the field reconnaissance surveys (Appendix E). Common mammalian species observed included a California ground squirrel (*Otospermophilus beecheyi*) individual, coyote (*Canis latrans*) scat, and domesticated dog (*Canus lupus familiaris*). One reptilian species, the western fence lizard (*Sceloporus occidentalis*), was observed in the APE. Common avian species observed include common raven (*Corvus corax*), American crow (*Corvus brachyrhynchos*), and red-tailed hawk (*Buteo 27rcutti27na27*), among others. These species, with the exception of domesticated dog, would be expected to use the APE for foraging, nesting, and/or shelter.

4 Sensitive Biological and Jurisdictional Resources

Local, state, and federal agencies regulate special-status species and other sensitive biological resources and may require an assessment of their presence or potential presence to be conducted on-site prior to the approval of proposed development on a property. This section discusses sensitive biological resources observed within the APE and evaluates the potential for the APE to support additional sensitive biological resources. Assessments for the potential occurrence of special-status species are based upon known ranges, habitat preferences for the species, species occurrence records from the CNDDB, species occurrence records from other sites in the vicinity of the APE, previous reports for the project site, and the results of surveys of the APE. The potential for each special-status species to occur in the APE was evaluated according to the following criteria:

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

4.1 Special-status Species

4.1.1 Special-status Plant Species

Based on the database and literature review, 38 special-status plant species have been recorded within the vicinity (i.e., nine quadrangle radius) of the APE (Appendix C). Of these, one species has a high potential to occur, and three species have a moderate potential to occur within the APE based upon the presence of suitable habitat within the APE. The species that can be reasonably anticipated to occur were determined based on the published ranges of the species, and the type, extent, and condition of habitat available at the APE. A list of special-status plant species with potential to occur within the APE is provided in Table 2 below. Those with a moderate or high potential to occur are discussed in more detail in the following sections.

Table 2 Special-status Plant Species with Potential to Occur in the APE

Species	Low Potential	Moderate Potential	High Potential	Present
Catalina mariposa lily (*Calochortus catalinae*); CRPR 4.2	X			
Club-haired mariposa lily (*Calochortus clavatus* var. *clavatus*); CRPR 4.3	X			
Slender mariposa 29rcu (*Calochortus clavatus* var. *Gracilis*); CRPR 1B.2			X	
Plummer's mariposa lily (*Calochortus plummerae*); CRPR 4.2	X			
Peirson's morning-glory (*Calystegia peirsonii*); CRPR 4B.2	X			
San Fernando Valley spineflower (*Chorizanthe parryi* var. *29rcutti29na*); SCE; CRPR 4.2		X		
Parry's spineflower (*Chorizanthe parryi* var. *parryi*); CRPR 1B.2		X		
Slender-horned spineflower (*Dodecahema leptoceras*); FE, SCE, CRPR 1B.2		X		
Mesa horkelia (*Horkelia cuneata* var. *Puberula*); CRPR 1B.1	X			
California satintail (*Imperata brevifolia*); CRPR 2B.1	X			
Robinson's pepper-grass (*Lepidium virginicum* var. *Robinsonii*); CRPR 4.3	X			
California spineflower (*Mucronea californica*); CRPR 4.2	X			
Piute Mountains navarretia (*Navarretia setiloba*); CRPR 1B.1	X			
White rabbit-tobacco (*Pseudognaphalium leucocephalum*); CRPR 2B.2	X			

FE = Federally Endangered; FT = Federally Threatened; SE = State Endangered; SCE = State Candidate Endangered; ST = State Threatened; SV = State Vulnerable; FP= State Fully Protected; SSC = CDFW Species of Special Concern ; WL= Watch List ; CRPR = California Rare Plant Rank.

The remaining 24 special-status plant species are not expected to occur in the APE based on incompatible habitat conditions (e.g., vegetation assemblage, soils, topography, hydrology, and prior disturbances), or the absence of readily identifiable species (e.g., perennial herbs, shrubs, and/or trees) based upon the field reconnaissance survey results.

A brief description of each species with moderate or high potential to occur is provided below. Species with a low potential to occur are omitted from further discussion because there are limited habitat components meeting the species requirements and/or the majority of habitat in and adjacent to the APE is unsuitable or of very poor quality, the species was not observed during field surveys, and therefore the species is not likely to be found in the APE.

Slender Mariposa Lily

Slender mariposa lily (*Calochortus clavatus* var. *gracilis*; California Rare Plant Rank [CRPR] 1B.2) is a perennial bulb in the lily (*Liliaceae*) family. This plant has linear basal leaves approximately 10-20 centimeters (cm) long and a stem approximately 20-30 cm tall. Slender mariposa lily generally flowers between March and June. The flowers are cup-shaped and composed of three petals, each of which are between 3-4 cm in size. The petals are yellow and sparsely hairy, with variable dark red or brown lines. The fruit is a narrow capsule which contains many seeds (Jepson Flora Project 2023). Slender mariposa lily is endemic to coastal southern California and is often found in chaparral, coastal scrub, and on grassy slopes in shaded foothill canyons.

Potentially suitable habitats for slender mariposa lily include chaparral (i.e., chamise chaparral), scrub (i.e., big sagebrush scrub, brittle bush scrub, California buckwheat scrub, California sagebrush – California buckwheat scrub, rubber rabbitbrush scrub, scale broom scrub, California sagebrush scrub, scale broom scrub, and thick-leaved yerba santa scrub), and herbaceous (i.e., clustered tarweed fields, and wild oats and annual brome grasslands) communities that occur above the northern bank of the SCR along the south-facing terrace that slopes down toward the SCR. Additionally, there are multiple CNDDB records within the vicinity of the APE, the closest being approximately 0.6 mile northeast (Occurrence No. 139). Therefore, spender mariposa lily has a high potential to occur in the APE.

San Fernando Valley Spineflower

San Fernando Valley spineflower (*Chorizanthe parryi* var*. 30rcutti30na*; State Candidate Endangered [SCE], CRPR 1B.1) is an annual herb in the buckwheat (*Polygonaceae*) family that blooms between April and July. This species is generally found in washes and on hills or mesas, and grows in a variety of substrates, including sandy soils and loamy or silty clay loam soils. This basal rosette plant has linear basal leaves approximately 0.5-4 cm long. The flowers are tube-shaped and composed of three petals, each of which are between 2-3 millimeters (mm) in size. The petals are green to white. The fruit is a single-seeded achene (Jepson Flora Project 2023).

Potentially suitable chaparral (i.e., chamise chaparral), scrub (i.e., big sagebrush scrub, brittle bush scrub, California buckwheat scrub, California sagebrush – California buckwheat scrub, rubber rabbitbrush scrub, scale broom scrub, California sagebrush scrub, scale broom scrub, and thick-leaved yerba santa scrub), and grassland (i.e., wild oats and annual brome grasslands) habitats occur along the upper terrace to the north of the SCR in the northwestern portion of the APE. However, there are no CNDDB records within a 5-mile radius of the APE. Therefore, San Fernando Valley spineflower has a moderate potential to occur in the APE.

Parry's Spineflower

Parry's spineflower (*Chorizanthe parryi var. parryi*; CRPR 1B.2) is an annual herb in the buckwheat family that blooms between April and June. This species is generally found in openings in chaparral, coastal scrub, and grassland habitats, and typically grows in sandy soils. This basal rosette plant has linear basal leaves approximately 0.5-4 cm long. The flowers are tube-shaped and composed of three petals, each of which are between 2-3 millimeters (mm) in size. The petals are green to white. The fruit is a single-seeded achene (Jepson Flora Project 2023).

Potentially suitable chaparral (i.e., chamise chaparral), scrub (i.e., big sagebrush scrub, brittle bush scrub, California buckwheat scrub, California sagebrush – California buckwheat scrub, rubber rabbitbrush scrub, scale broom scrub, California sagebrush scrub, scale broom scrub, and thick-leaved yerba santa scrub), and grassland (i.e., wild oats and annual brome grasslands) habitats occur along the upper terrace to the north of the SCR in the northwestern portion of the APE. However, there are no CNDDB records within a 5-mile radius of the APE. Therefore, Parry's spineflower has a moderate potential to occur in the APE.

Slender-horned Spineflower

Slender-horned spineflower (*Dodecahema leptoceras*; Federally Endangered [FE], SCE, CRPR 1B.1) is an annual herb in the buckwheat family that blooms between April and June. Slender-horned spineflower commonly occurs in alluvial fans, floodplains, stream terraces, washes, and associated benches, from 700-2,500 feet amsl. It grows in riverbed alluvium high in silt and low in nutrients and

organic matter; in silt-filled, shallow depressions on relatively flat surfaces surrounded by scattered, river-rounded, cobble-sized rocks. The species is generally found in open areas among alluvial fan scrub, often associated with other spineflower species, and in low density of exotic grasses and other introduced weedy species (Allen 1996).

Potentially suitable habitat for slender-horned spineflower occurs in the APE, including coastal scrub (i.e., California buckwheat scrub, California sagebrush – California buckwheat scrub, rubber rabbitbrush scrub, scale broom scrub, California sagebrush scrub, scale broom scrub, and thick-leaved yerba santa scrub) within the banks of the SCR, particularly within the lower terraces above the low-flow channel of the river. Additionally, there are multiple CNDDB records near the APE, the closest recent occurrence (i.e., less than 30 years old) being approximately 3.5 miles northeast (Occurrence No. 279). However, reconnaissance field surveys performed within the APE in April 2013 did not detect any individuals (Dudek 2013). Therefore, this species has a moderate potential to occur in the APE.

4.1.2 Special-status Wildlife Species

Based on the database and literature review, 31 special-status wildlife species have been recorded or have the potential to occur within the vicinity (i.e., nine quadrangle radius) of the APE (Appendix C). Of these, 24 species have potential to occur within the APE based upon the presence of suitable habitat and history of occurrence in the vicinity. Four (4) species have a high potential to occur, 8 species have a moderate potential to occur, and 12 species have a low potential to occur within the APE. A list of special-status wildlife species with potential to occur within the APE is provided in Table 3 below.

Table 3 Special-status Wildlife Species with Potential to Occur in the APE

Species	Low Potential	Moderate Potential	High Potential	Present
Crotch bumble bee (*Bombus crotchii*); SCE		X		
Santa Ana sucker (*Catostomus santaanae*); FT		X		
Unarmored threespine stickleback (*Gasterosteus aculeatus williamsoni*); FE, SE, FP		X		
Arroyo chub (*Gila 31rcutti*); SSC		X		
Arroyo toad (*Anaxyrus californicus*); FE, SSC		X		
Western spadefoot (*Spea hammondii*); SSC		X		
California legless lizard (*Anniella* spp.); SSC			X	
California glossy snake (*Arizona elegans occidentalis*); SSC	X			
Coastal whiptail (*Aspidoscelis tigris stejnegeri*); SSC			X	
Coast horned lizard (*Phrynosoma blainvillii*); SSC		X		
Two-striped gartersnake (*Thamnophis hammondii*); SSC	X			
Cooper's hawk (*Accipiter cooperii*); WL		X		
Southern California rufous-crowned sparrow (*Aimophila ruficeps canescens*); WL	X			
Bell's sage sparrow (*Artemisiospiza belli belli*); WL	X			
Burrowing owl (*Athene cunicularia*); SSC	X			
Western yellow-billed cuckoo (*Coccyzus americanus occidentalis*); FE, SE	X			

Species	Low Potential	Moderate Potential	High Potential	Present
Southwestern willow flycatcher (*Empidonax traillii extimus*); FE, SE	X			
California horned lark (*Eremophila alpestris actia*); WL			X	
Prairie falcon (*Falco mexicanus*); WL	X			
Loggerhead shrike (*Lanius ludovicianus*); SSC	X			
Coastal California gnatcatcher (*Polioptila californica californica*); FT, SSC	X			
Least Bell's vireo (*Vireo bellii pusillus*); FE, SE	X			
Western mastiff bat (*Eumops perotis californicus*); SSC	X			
San Diego black-tailed jackrabbit (*Lepus californicus bennettii*); SSC			X	

FE = Federally Endangered; FT = Federally Threatened; SE = State Endangered; SCE = State Candidate Endangered; ST = State Threatened; SV = State Vulnerable; FP= State Fully Protected; SSC = CDFW Species of Special Concern ; WL= Watch List

A brief description of each species with moderate or high potential to occur is provided below. Species with a low potential to occur are omitted from further discussion because there are limited habitat components meeting the species requirements and/or the majority of habitat in and adjacent to the APE is unsuitable or of very poor quality, the species was not observed during field surveys, and therefore the species is not likely to be found in the APE.

The remaining seven special-status wildlife species that have been recorded or have the potential to occur within the vicinity of the APE are not expected to occur because the APE does not support their required habitat components and/or is not within the known range of the species.

Fish

Arroyo Chub

The arroyo chub (*Gila orcutti*) is a CDFW Species of Special Concern (SSC) native to coastal drainages of Los Angeles, Orange, Riverside, and San Diego counties in California. Considered true omnivores, arroyo chub eat algae, insects, and small crustaceans (Moyle 2015). Spawning generally occurs in June and July, but the eggs of females ripen in small batches, allowing spawning to occur anywhere from February through August (Tres 1992). Typically, arroyo chub are found in slow-moving sections of cool to warm (50°F – 78.8°F) streams dominated by sand and silt substrates.

Potentially suitable aquatic habitat occurs in the low-flow channel of the SCR, including sandy substrate and presence of algae. One CNDDB record (Occurrence No. 44) from 1999 is located in the SCR approximately three miles downstream (west) of the APE. However, because there is no permanent water flow in the stretch of the SCR within the APE, this species would only occupy the SCR after a large storm event, and therefore has a moderate potential to occur in the APE.

Santa Ana Sucker

The Santa Ana sucker (*Catostomus santaanae*) is a federally threatened fish species that historically occupied upper watershed areas of the San Gabriel and San Bernardino Mountains down to the Pacific Ocean. At present, the Santa Ana sucker is found in three disjunct populations that occupy portions of the San Gabriel, Los Angeles, and Santa Ana River basins in southern California. Santa Ana suckers rely on perennial flows with suitable water quality and substrate to support breeding, feeding, and sheltering. Over different life history stages, suckers depend on a variety of coarse

substrate types, such as gravel, cobble, or mixtures of gravel or cobble with sand, and a variety of riverine features, such as shallow riffles and deeper runs and pools (USFWS 2023d).

Potentially suitable aquatic habitat occurs in the low-flow channel of the SCR, including presence of aquatic vegetation (e.g., watercress) and slow-moving water. Additionally, one CNDDB record (Occurrence No. 13) from 1993 is located in the SCR approximately 3.5 miles upstream (east) of the APE (CDFW 2023a). However, because there is no permanent water flow in the stretch of the SCR within the APE, this species would only occupy the SCR after a large storm event, and therefore has a moderate potential to occur in the APE.

Unarmored Threespine Stickleback

Unarmored threespine stickleback (*Gasterosteus aculeatus williamsoni*; UTS) is a state and federally listed endangered species and a state fully protected species. UTS are scaleless, freshwater fish that grow up to five centimeters (two inches) long and primarily feed on bottom dwelling insects, crustaceans, and snails. UTS have a very limited distribution, with the southern California population represented in only three drainages; Upper SCR (extremely limited), Bouquet Creek (extremely limited) and Soledad Canyon Creek (possibly extirpated).

Potentially suitable aquatic habitat occurs in the low-flow channel of the SCR, including presence of aquatic vegetation (e.g., watercress) and slow-moving water. Additionally, two CNDDB records (Occurrence No. 4 and 10) are located in the SCR approximately 3.5 miles upstream (Occurrence No. 4) and three miles downstream (Occurrence No. 10) of the APE. However, because there is no permanent water flow in the stretch of the SCR within the APE, this species would only occupy the SCR after a large storm event, and therefore has a moderate potential to occur in the APE.

Amphibians and Reptiles

Arroyo Toad

Arroyo toad (*Anaxyrus californicus*) is a federally endangered species and SSC endemic to California and northern Baja California. This species ranges mostly west of the desert in coastal areas from the upper Salinas River system in Monterey County to northwestern coastal Baja California. Arroyo toad occurs in washes, arroyos, sandy riverbanks, and riparian areas with willows, sycamores (*Platanus* spp.), oaks (*Quercus* spp.), and cottonwoods (*Populus* spp.). Arroyo toads require exposed sandy streambanks with stable terraces for burrowing with scattered vegetation for shelter as well as areas of quiet water or pools free of predatory fishes with sandy or gravel bottoms without silt for breeding (Zeiner et al. 1988).

One CNDDB record of arroyo toad (Occurrence No. 48) has been documented within five miles of the APE and is located in the SCR channel approximately four miles upstream (east) of the APE (CDFW 2023a). The APE contains coastal scrub and riparian habitat for burrowing/dispersal along the sandy banks of the SCR, which is generally associated with the Fremont cottonwood forest and woodland, sandbar willow thickets, mulefat thickets, scale broom scrub, and thick-leaved yerba santa scrub vegetation communities, as well as the riverwash land cover type. In addition, suitable breeding habitat for this species may be present within the active channel of the SCR when surface water is present. Therefore, this species has a moderate potential to occur within the APE.

Western Spadefoot

Western spadefoot (*Anaxyrus californicus*) is an SSC and is also proposed for listing as threatened under the FESA. This species ranges throughout the Central Valley and adjacent foothills, and through the Coast Ranges and coastal plain from Point Conception south to the Mexican border. Elevations of occurrence extend from near sea level to 4,460 feet amsl in the southern Sierra foothills. It relies on temporary rain pools in a variety of vegetation types for its reproductive habitat. It spends most of the year in burrows up to 36 inches underground. Individuals have been reported to use mammal burrows. Surface movement by adults is primarily associated with rains or during nights of high humidity and they rarely stray far from their natal pools. Ponds must lack predators and persist for at least three weeks for successful reproduction. Recently metamorphosed juveniles seek refuge in drying mud cracks, under boards and other surface objects in the immediate vicinities of breeding ponds for up to several days after transformation.

This species was previously documented approximately 200 feet south of the APE on the southern bank of the SCR during focused surveys performed for the Vista Canyon Specific Plan Environmental Impact Report (EIR; State Clearinghouse [SCH] No. 2007071039; City of Santa Clarita 2010). This documented occurrence includes a single dispersing adult. Additionally, there are four CNDDB records (Occurrence No.'s 342-344, 1062) within one mile of the APE (CDFW 2023a). One of these occurrences from 2008 (Occurrence No. 342) included observations of tadpoles and egg clusters. Vernal pools are generally absent from the APE, but potentially suitable grassland habitat occurs to the north of the northe'n bank of the SCR in the APE, and western spadefoot has a moderate potential to utilize this habitat for foraging. The APE does not provide suitable breeding habitat for western spadefoot, but suitable breeding habitat may occur outside of the APE near locations of previously documented occurrences. Therefore, this species has a moderate potential to occur within the APE.

California Legless Lizard

California legless lizard (*Anniella* spp.) is an SSC found in the Coast Ranges from Contra Costa County to the Mexican border. California legless lizard occurs in a variety of habitats including sparsely vegetated areas of coastal dunes, valley-foothill grasslands, chaparral, and coastal scrub that contain sandy or loose organic soils with leaf litter and moist soils for burrowing. Areas disturbed by agriculture or other human uses are typically not suitable habitat for the species (Zeiner et al. 1988).

Numerous CNDDB records of the species have been documented within five miles of the APE, including one record from 2015 (Occurrence No. 67) that overlaps the APE (CDFW 2023a). Potentially suitable open scrub (big sagebrush scrub, brittle bush scrub, California buckwheat scrub, California sagebrush – California buckwheat scrub, rubber rabbitbrush scrub, scale broom scrub, California sagebrush scrub, scale broom scrub, and thick-leaved yerba santa scrub) and grassland habitat (i.e., wild oats and annual brome grasslands) occurs in and adjacent to the SCR to support this species. In addition, loose, moist soil occurs adjacent to the active channel of the SCR and may provide suitable foraging and/or breeding habitat for this species. Therefore, California legless lizard has a high potential to occur within the APE.

Coastal Whiptail

Coastal whiptail (*Aspidoscelis tigris stejnegeri*) is an SSC that is found in deserts and semi-arid areas with sparse vegetation within Ventura, Los Angeles, Riverside and San Diego counties. The species is commonly found in a variety of habitats including valley-foothill hardwood, valley-foothill

hardwood-conifer, valley-foothill riparian, mixed conifer, pine-juniper, chamise-redshank chaparral, mixed chaparral, desert scrub, desert wash, alkali scrub, and annual grasslands (Zeiner et al. 1988).

Several occurrences have been documented within five miles of the APE, the closest being approximately 0.2 mile southwest (CDFW 2023a). Potentially suitable open scrub (i.e., big sagebrush scrub, brittle bush scrub, California buckwheat scrub, California sagebrush – California buckwheat scrub, rubber rabbitbrush scrub, scale broom scrub, California sagebrush scrub, scale broom scrub, and thick-leaved yerba santa scrub) and grassland habitat (i.e., wild oats and annual brome grasslands) occurs in the APE to support this species. While this species was not documented during surveys performed for the Vista Canyon Specific Plan EIR, which overlaps the western portion of the APE (City of Santa Clarita 2010), the APE provides suitable open scrub and grassland habitat as well as sparsely-vegetated sandy soils. Therefore, this species has a high potential to occur in the APE.

Coast Horned Lizard

Coast horned lizard (*Phrynosoma blainvillii*) is an SSC that can be found in grasslands, coniferous forests, woodlands, and chaparral habitats containing open areas and patches of loose soil. There are multiple records of the species within the regional vicinity of the APE, the closest being approximately 3.5 miles east in Bee Canyon Wash (CDFW 2023a). Additionally, this species was observed within the Vista Canyon Specific Plan area in 2006, which overlaps the western portion of the APE (City of Santa Clarita 2010). Suitable open scrub (I.e., big sagebrush scrub, brittle bush scrub, California buckwheat scrub, California sagebrush – California buckwheat scrub, rubber rabbitbrush scrub, scale broom scrub, California sagebrush scrub, scale broom scrub, and thick-leaved yerba santa scrub) and grassland habitat (i.e., wild oats and annual brome grasslands) occurs in the APE to support this species. and grassland habitats with loose soils in and adjacent to the SCR are present within the APE. Therefore, coast horned lizard has a moderate potential to occur within the APE.

Birds

Cooper's Hawk

Cooper's hawk (*Accipiter cooperii*) is a CDFW Watch List (WL) species that typically occurs in woodland habitat. This species forages and nests in riparian growths of deciduous trees or live oak trees, as in canyon bottoms on river floodplains. While no CNDDB records are documented within five miles of the APE, this species was observed within the Vista Canyon Specific Plan area in 2009, which overlaps the western portion of the APE (City of Santa Clarita 2010). Potentially suitable nesting habitat occurs in the Fremont cottonwood forest and woodland vegetation community. However, this vegetation community is isolated, of relatively small size, and is constrained to the north by SR-14. Therefore, this species has a moderate potential to forage and/or nest in the APE.

California Horned Lark

California horned lark (*Eremophila alpestris actia*) is a CDFW WL species that typically occurs in the coastal regions of California from Sonoma County to San Diego County. This species mostly eats insects, snails, and spiders during the breeding season (generally February 1 through August 31) and adds grass and forb seeds and other plant matter to its diet during other seasons. The California horned lark walks along the ground, searching for food. Grasses, shrubs, forbs, rocks, litter, clods of soil, and other surface irregularities provide cover. This species builds grass-lined cup-shaped nests

in depressions on the ground in the open and is frequently found in grasslands and other open habitats with low, sparse vegetation (Zeiner et al. 1988).

No CNDDB records are documented within five miles of the APE; however, foraging individuals were observed within the Vista Canyon Specific Plan area in 2009, which overlaps the western portion of the APE (City of Santa Clarita 2010). Nesting was not documented during these surveys. Potentially suitable nesting and foraging habitat occurs in the scrub (i.e., big sagebrush scrub, brittle bush scrub, California buckwheat scrub, California sagebrush – California buckwheat scrub, rubber rabbitbrush scrub, scale broom scrub, California sagebrush scrub, scale broom scrub, and thick-leaved yerba santa scrub) and grassland (i.e., wild oats and annual brome grasslands) vegetation communities in the APE. Therefore, this species has a high potential to occur in the APE.

Mammals

San Diego Black-Tailed Jackrabbit

San Diego black-tailed jackrabbit (*Lepus californicus bennettii*) is an SSC that inhabits a wide range of habitats including desert shrublands, sagebrush, chaparral, oak woodland with an herb mosaic component. This species occurs from coastal southern California to Baja California. The species requires a mix of grasses, forbs, and shrubs for foraging and prefers predominantly open areas without dense understory (Howard 1995).

The closest CNDDB record of this species is approximately 300 feet southwest of the APE (Occurrence No. 106; CDFW 2023a). In addition, this species was observed during surveys performed for the Vista Canyon Specific Plan EIR in 2008 (City of Santa Clarita 2010). Potentially suitable habitat occurs in the scrub (i.e., big sagebrush scrub, brittle bush scrub, California buckwheat scrub, California sagebrush – California buckwheat scrub, rubber rabbitbrush scrub, scale broom scrub, California sagebrush scrub, scale broom scrub, and thick-leaved yerba santa scrub) and grassland (i.e., wild oats and annual brome grasslands) vegetation communities in the APE, with more open habitat occurring within the banks of the SCR. Therefore, this species has a high potential to occur in the APE.

Insects

Crotch Bumble Bee

Crotch bumble bee (*Bombus crotchii*) is an SCE species endemic to California and south into Mexico. The Crotch bumble bee inhabits grassland and scrub areas, requiring a hotter and drier habitat than other bumble bee species. This species nests underground, often in abandoned rodent dens. Forage plant genera include but are not limited to snapdragon (*Antirrhinum* spp.), phacelia (*Phacelia* spp.), clarkia (*Clarkia* spp.), tree poppy (*Dendromecon* spp.), herbaceous poppy (*Eschscholzia* spp.), and buckwheat (*Eriogonum* spp.).

One historic CNDDB record (Occurrence No. 135) overlaps the APE, and one recent CNDDB record (Occurrence No. 326) from 2019 is located approximately 3.3 miles south of the APE (CDFW 2023a). The APE contains potentially suitable foraging habitat in the scrub (i.e., big sagebrush scrub, brittle bush scrub, California buckwheat scrub, California sagebrush – California buckwheat scrub, rubber rabbitbrush scrub, scale broom scrub, California sagebrush scrub, scale broom scrub, and thick-leaved yerba santa scrub) and grassland (i.e., wild oats and annual brome grasslands) habitats. Additionally, forage food genera for the Crotch bumble bee including California buckwheat and longstem buckwheat (*Eriogonum elongatum*) commonly occur throughout the scrub habitats,

particularly along the upland slopes to the north of the SCR. Therefore, this species has a moderate potential to forage within the APE. Crotch bumble bee has a low potential to nest in the APE, as limited rodent dens were observed in the APE, and a large portion of the APE has been previously disturbed. Moreover, only one single California ground squirrel was observed in the APE, and it was found on an ornamental tree in the developed land cover type.

4.1.3 Other Protected Species

Nesting Birds

The APE contains suitable habitat to support regulated nesting birds and raptors protected under CFGC Sections 3503, 3503.5, and 3513, and the MBTA (16 United States Code Sections 703 to 712). Potential nesting habitat for birds and raptors was observed throughout the APE, with the most suitable locations in the Fremont cottonwood forest and woodland, tamarisk thickets, mulefat thickets, and sandbar willow thickets vegetation communities, and moderately-suitable nesting habitat occurring in the scrub (i.e., big sagebrush scrub, brittle bush scrub, California buckwheat scrub, California sagebrush – California buckwheat scrub, rubber rabbitbrush scrub, scale broom scrub, California sagebrush scrub, scale broom scrub, and thick-leaved yerba santa scrub) and chaparral (i.e., chamise chaparral) vegetation communities. No inactive or potentially active nests were observed within the APE during the field reconnaissance surveys.

4.2 Sensitive Plant Communities and Critical Habitats

Sensitive Natural Communities

The CDFW *California Sensitive Natural Communities List* identifies sensitive natural communities throughout California, based in part on global and state rarity ranks (CDFW 2023b). Natural communities having a rank of 1 to 3 are generally considered sensitive, though some communities with other ranks may also be considered sensitive. CDFW-designated sensitive vegetation communities found within the APE include clustered tarweed fields (ranked G2S2), Fremont cottonwood forest and woodland (ranked G4S3), and scale broom scrub (ranked G3S3; CDFW 2023b). Fremont cottonwood forest and woodland and scale broom scrub are located in the riparian corridor of the SCR and Intermittent Drainage 1 in the central and southern portions of the APE, and clustered tarweed fields are located in the northern portion of the APE along Mitchell Hill which occurs on an upland terrace to the north of the SCR (Figure 5a).

Designated Critical Habitat

No USFWS-designated critical habitat occurs within the APE. The nearest designated critical habitat is for coastal California gnatcatcher approximately 1.6 miles southwest of the APE in the foothills of the San Gabriel Mountains, spreading navarretia (*Navarretia fossalis*) approximately 2.6 miles north near the Cruzan Mesa, and arroyo toad approximately 2.9 miles east of the APE within the SCR riparian corridor (USFWS 2023b). No other USFWS-designated critical habitat exists within five miles of the APE.

4.3 Jurisdictional Waters and Wetlands

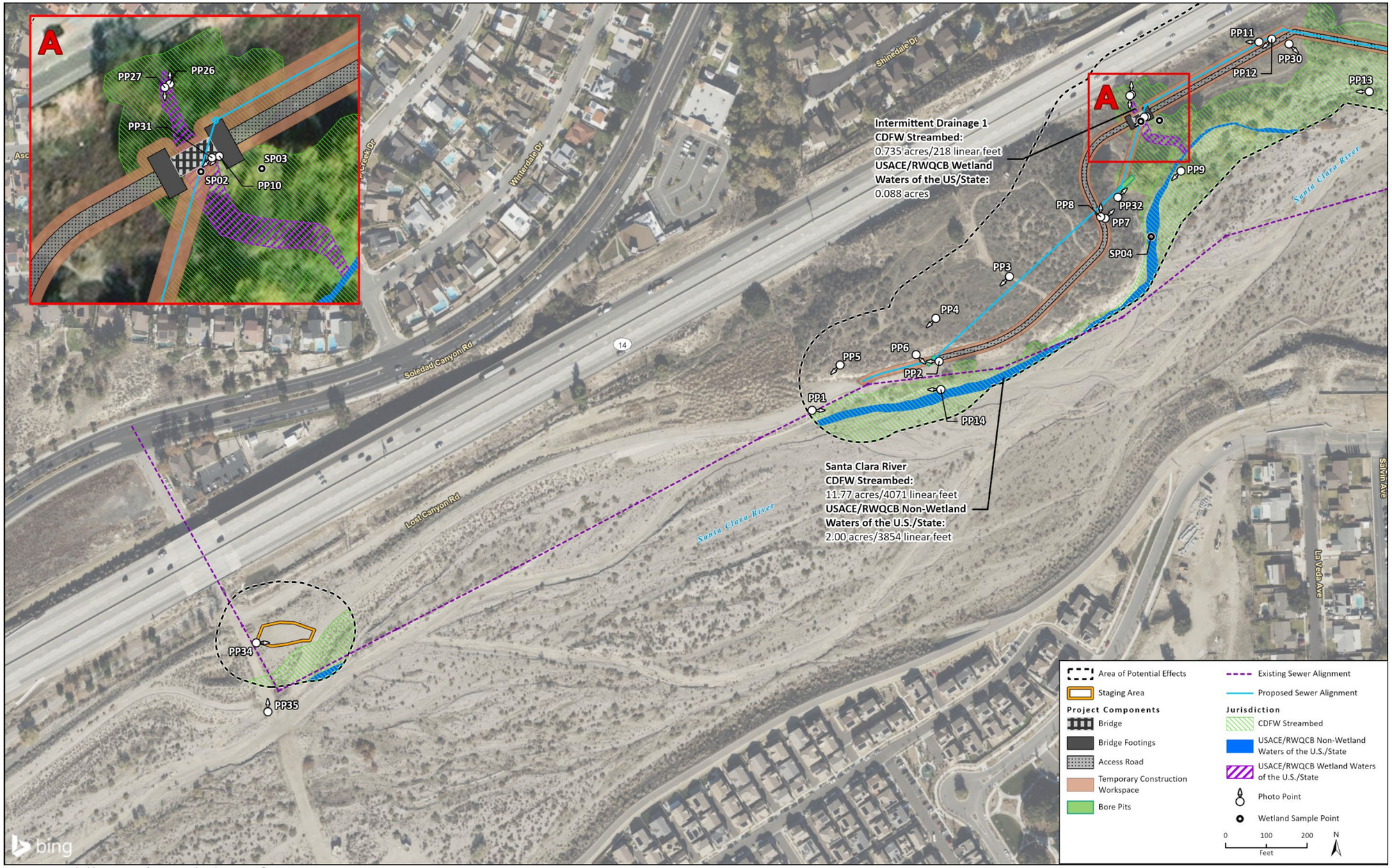
The results of the research and field visit determined the SCR and Intermittent Drainage 1 are potentially subject to USACE, RWQCB, and CDFW jurisdictions. Ephemeral Drainage 1 is also

potentially subject to RWQCB and CDFW jurisdictions (Table 4). A total of 2.00 acres (3,854 linear feet) of non-wetland waters of the U.S. and 0.088 acre of wetland waters of the U.S. occur within the APE (Figure 6). A total of 2.06 acres (4,063 linear feet) of non-wetland waters of the state and 0.088 acre of wetland waters of the state occur within the APE. A total of 12.86 acres (4,463 linear feet) of CDFW streambed and associated riparian habitat occur within the APE. A map illustrating potentially jurisdictional aquatic resources within the APE is presented in Figure 6a-Figure 6b. A description of each jurisdictional feature occurring within the APE is provided below. Site photographs are provided in Appendix D.

Table 4 Summary of Potentially Jurisdictional Areas within the APE

	USACE Waters of the U.S.		RWQCB Waters of the State		CDFW Jurisdiction
Feature	Non-wetland Waters of the U.S. (acres [linear feet])	Wetland Waters of the U.S. (acres)	Non-wetland Waters of the State (acres [linear feet])	Wetland Waters of the State (acres)	CDFW Streambed (acres [linear feet])
Santa Clara River	2.00 (3,854)	0	2.00 (3,854)	0	11.77 (4,071)
Intermittent Drainage 1	–	0.09	–	0.09	0.74 (218)
Ephemeral Drainage 1	–	–	0.06 (209)	–	0.36 (174)
Total	**2.00 (3,854)**	**0.09**	**2.06 (4,063)**	**0.09**	**12.86 (4,463)**

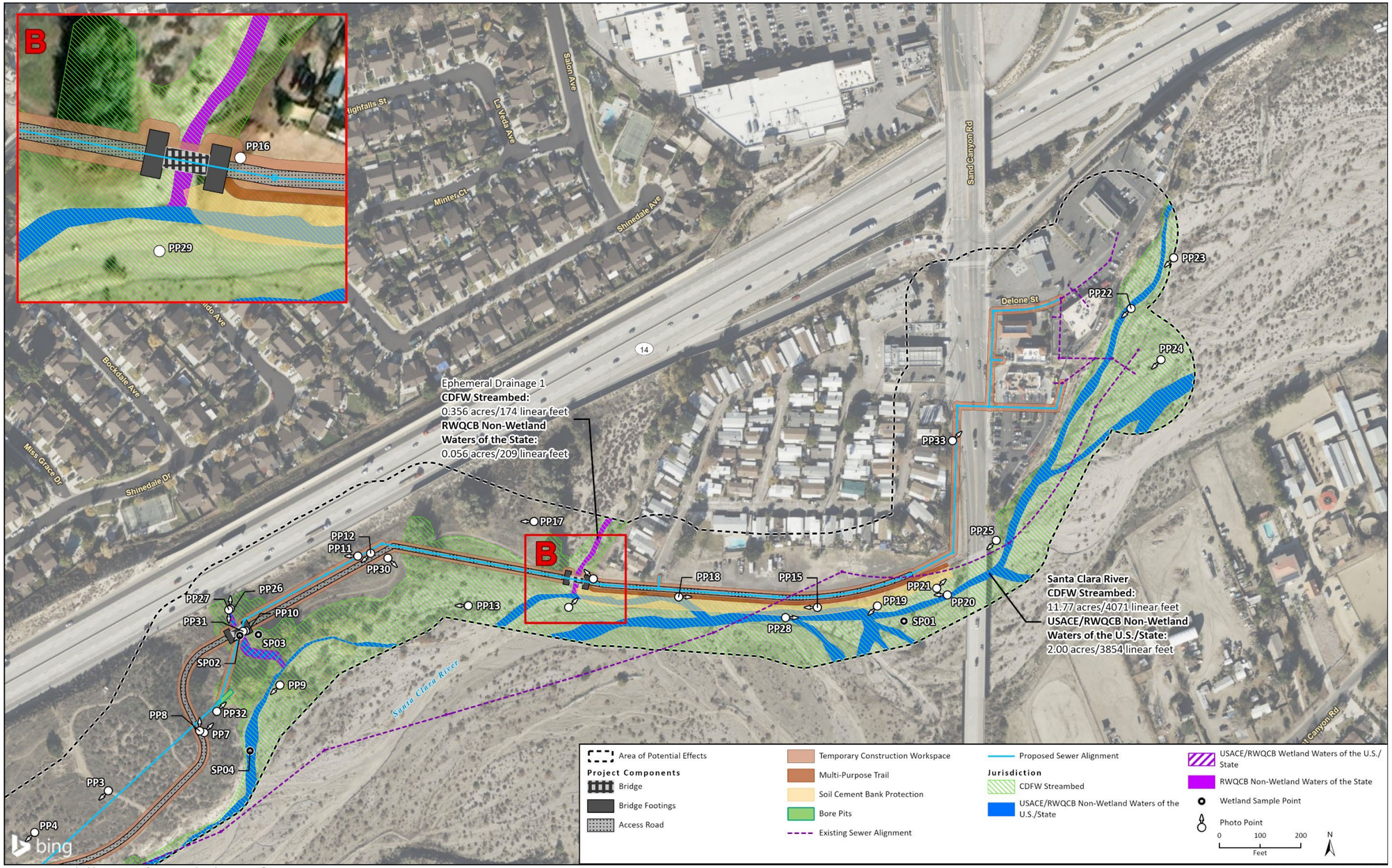
Figure 6a Potentially Jurisdictional Resources – West



Imagery provided by Microsoft Bing and its licensors © 2024.

22-13523 Sand Cnyn Sewer Reloc
Fig 6A Jurisdictional Delineation No Impacts

Figure 6b Potentially Jurisdictional Resources – East



Imagery provided by Microsoft Bing and its licensors © 2024.

22-13523 Sand Cnyn Sewer Reloc
Fig 6B Jurisdictional Delineation No Impacts

Santa Clara River

The SCR flows from east to west in the southern portion of the APE (Figure 6a-Figure 6b). The SCR is an intermittent system; the riverbed surface is dry for most of the year, except during and following storm events. The riverbed is wide and characterized by a braided active channel, and contains historical secondary channels that are interspersed among the active channel. Within the APE, the SCR receives inputs from a variety of drainages, including Sand Canyon Creek to the south of the APE, and Intermittent Drainage 1 and Ephemeral Drainage 1 in the northern portion of the APE. During the field surveys, flowing water was present within the active channel of the SCR in the western portion of the APE near the confluence with Intermittent Drainage 1 and moving westward toward the proposed staging area (Appendix D, Photographs 1, 6, and 14).

The northern top of bank of the SCR extends from the central portion of the APE southward for approximately 160 feet to the southern boundary of the APE. The southern bank of the SCR occurs outside and to the south of the APE. The OHWM of the SCR ranges between 10 and 46 feet wide in the APE, with the widest point of the OHWM occurring in the northeastern portion of the APE and the narrowest point occurring in the central portion of the APE. The OHWM of the SCR is defined by a change in sediment, a change in vegetation composition, a clearly defined bed and bank, and a break in the associated bank slope. Due to the intermittent flow regime of the SCR, surface water observed during the field surveys, and direct connectivity to a TNW (Pacific Ocean), this feature is determined to be a Relatively Permanent Water (RPW) that flows at least seasonally (i.e., three months out of the year). SP01 and SP04 were collected immediately adjacent to the OHWM of the SCR in the eastern and central portions of the APE, respectively (Figure 6a-Figure 6b). At SP01 and SP04, indicators of hydrophytic vegetation and wetland hydrology were observed, but hydric soils were not observed (Appendix F). Therefore, it was determined that wetlands were not present in the SCR within the APE.

Based on the field surveys, the SCR is potentially subject to USACE, RWQCB, and CDFW jurisdiction. The SCR constitutes non-wetland waters potentially subject to the jurisdiction of USACE per Section 404 of the CWA and was delineated to the width of the OHWM of the SCR. The SCR also potentially constitutes a CDFW streambed under the jurisdiction of the CDFW per Section 1600 et seq. of the CFGC. The limits of CDFW jurisdiction extend to the top of bank or outer edge of riparian vegetation associated with the river, whichever is greater. The SCR also constitutes non-wetland waters potentially subject to the jurisdiction of the Los Angeles RWQCB per Section 401 of the CWA. The limits of RWQCB jurisdiction were determined to be coterminous with USACE jurisdiction.

Intermittent Drainage 1

Intermittent Drainage 1 flows from north to south in the central portion of the APE (Figure 6a-Figure 6b). Intermittent Drainage 1 originates in the APE from an eight-foot tall, eight-foot wide concrete box culvert outlet immediately south of SR-14, which conveys surface water runoff from the residential neighborhood to the north (Appendix D, Photograph 26). This drainage has an intermittent flow regime and contains surface water for a majority of the year, as evidenced by the presence of slow-flowing water during the field surveys. Intermittent Drainage 1 is characterized by a single active channel with slow-moving water, with establishment of dense riparian vegetation (including herbs, shrubs, and trees) within and surrounding the active channel. Vegetation surrounding Intermittent Drainage 1 is categorized as the Fremont cottonwood forest and woodland vegetation community.

Within the APE, the top of bank of Intermittent Drainage 1 is approximately 80 feet wide and 8 feet deep, and the OHWM is approximately 20 feet wide and 3 feet deep. The OHWM of Intermittent Drainage 1 is defined by a change in vegetation species, a well-defined bed and bank, and a break in bank slope. Due to the intermittent flow regime of Intermittent Drainage 1, flowing water present during the field surveys, and direct connectivity to a TNW (Pacific Ocean) via the SCR, this feature is assumed to be an RPW that flows at least seasonally (i.e., three months out of the year). SP02 was taken in silty sediment within the OHWM of Intermittent Drainage 1 in an area dominated by cattails (*Typha* spp.; OBL), with an overstory of Fremont cottonwood (FACW), red willow (FACW), and Mexican fan palm (*Washingtonia robusta*; FACW). Indicators of hydrophytic vegetation and wetland hydrology were observed (Attachment 3). Although indicators of hydric soils were not observed at SP02, this area is dominated by cattails, an obligate wetland plant species. Furthermore, the concrete box culvert outlet associated with Intermittent Drainage 1 contained six feet of sediment accumulation, indicating that large volumes of sediment are frequently deposited within the bed of the drainage. The large amount of sediment accumulation on a regular basis appears to have obscured hydric soil indicators that may be present deeper in the soil profile. As such, it was determined that problematic hydric soils and therefore wetlands were present at SP02. SP03 was collected approximately 45 feet east of SP02, above the OHWM of Intermittent Drainage 1 but underneath the canopy of Fremont cottonwood trees associated with the drainage feature. No wetland indicators (hydrophytic vegetation, hydric soils, wetland hydrology) were observed at SP03. Therefore, it was determined that a wetland was not present at SP03, and the boundaries of wetlands in Intermittent Drainage 1 were defined to the extent of the OHWM.

Based on the field survey, Intermittent Drainage 1 is likely subject to USACE, RWQCB, and CDFW jurisdiction. Intermittent Drainage 1 contains wetland waters potentially subject to the jurisdiction of the USACE and Los Angeles RWQCB per Sections 404 and 401 of the CWA, respectively, and was delineated to the extent of the OHWM of the drainage feature. Intermittent Drainage 1 potentially constitutes a CDFW streambed under the jurisdiction of the CDFW per Section 1600 et seq. of the CFGC. The limits of CDFW jurisdiction extend to the riparian vegetation beyond the top of bank of the drainage.

Ephemeral Drainage 1

Ephemeral Drainage 1 flows from north to south in the central portion of the APE, immediately west of a mobile home park (Figure 6b). Ephemeral Drainage 1 is a relatively small streambed that collects flows from the hillsides and residential/commercial development to the north of SR-14 outside the APE. The bed of Ephemeral Drainage 1 is mostly unvegetated, but contains some upland shrub species such as rubber rabbitbrush (UPL) and California buckwheat (UPL), and limited establishment of mulefat (FAC). No standing or flowing water was observed in Ephemeral Drainage 1 during the field surveys (Appendix D, Photographs 16 and 29).

The top of bank of Ephemeral Drainage 1 is approximately 50 feet wide and 10 feet deep, and the OHWM is approximately 12 feet wide and one foot deep. The eastern bank of Ephemeral Drainage 1 is constrained by existing residential development. The OHWM of Ephemeral Drainage 1 is defined by a change in sediment, a change in vegetation composition, a clearly defined bed and bank, and a break in the associated bank slope. Due to the ephemeral flow regime of Ephemeral Drainage 1, lack of surface water observed during the field surveys, and relatively small size of the watershed contributing flows to the drainage system, this feature is determined to be a non-RPW that does not flow at least seasonally (i.e., three months out of the year). As Ephemeral Drainage 1 did not exhibit any wetland characteristics (e.g., predominance of hydrophytic vegetation, multiple indicators of

wetland hydrology), wetland sample points were not collected in the drainage feature and wetlands were determined to be absent.

Based on the field surveys, Ephemeral Drainage 1 is potentially subject to RWQCB and CDFW jurisdiction. Ephemeral Drainage 1 constitutes non-wetland waters potentially subject to the jurisdiction of the Los Angeles RWQCB per Section 401 of the CWA. The limits of Los Angeles RWQCB jurisdiction were delineated to the OHWM. Ephemeral Drainage 1 also potentially constitutes a CDFW streambed under the jurisdiction of the CDFW per Section 1600 et seq. of the CFGC. The limits of CDFW jurisdiction extend to the top of bank associated with the drainage, as there is no riparian vegetation extending beyond the top of bank. As Ephemeral Drainage 1 is an ephemeral, non-RPW, it is not anticipated to be subject to USACE jurisdiction per Section 404 of the CWA.

4.4 Wildlife Movement

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

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

At the regional/landscape-level scale, the APE is mapped as a relatively less permeable Essential Connectivity Area in the California Essential Habitat Connectivity Project: A Strategy for Conserving a Connected California (Spencer et al. 2010). The APE occurs along the southern fringe of an Essential Connectivity Area that connects portions of the San Gabriel Mountains to the north and south of the APE through the City. At the local level, the SCR channel in the southern portion of the APE provides a source of water during the winter months and contains a pathway and vegetative cover for migrating wildlife. Therefore, the SCR channel likely acts as a significant east-west movement corridor for large animals such as mule deer and coyote. Additionally, smaller, more mobile species (e.g., birds) may use the SCR channel to connect habitats to the north and south of the APE.

4.5 Resources Protected By Local Policies and Ordinances

City of Santa Clarita General Plan

Natural resources within City limits are regulated according to the City's General Plan, which includes policies regarding conservation of biological resources and ecosystems as well as protection of sensitive habitat (including wildlife corridors) and endangered species. The following objectives and policies related to biological resources are relevant for the proposed project based on its location and/or proposed activities (City of Santa Clarita 2011a):

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

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

up from roots seeking oxygen), and mitigate tree-sidewalk conflicts, in order to maintain a healthy mature urban forest.

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

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

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

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

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

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

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

Vista Canyon Specific Plan

The northwestern portion of the APE, including areas to the north of the SCR and to the west of Ephemeral Drainage 1, are within the planning area of the City's Vista Canyon Specific Plan. The Vista Canyon Specific Plan includes objectives regarding conservation of biological resources and ecosystems as well as protection of sensitive habitat (including the SCR) and endangered species. The following objectives related to biological resources are relevant for the proposed project based on its location and/or proposed activities (City of Santa Clarita 2011b):

Resource Conservation Objective 2.2.3:

1. Restore and minimize impacts to important biotic resources.
2. Maintain the use of the Santa Clara River as a major east/west open space corridor.
3. Establish a Santa Clara River Corridor and adopt measures to maintain, enhance, and protect important river habitat values and functions.

4. Provide native revegetation of river and setback areas when temporarily disturbed due to development activities.
5. Minimize impacts to the Santa Clara River and its resources.
6. Minimize impacts to oak trees and incorporate, where possible, oak trees into public spaces.

City of Santa Clarita Oak Tree Preservation Ordinance

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

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

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

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

During the reconnaissance field surveys, one coast live oak tree was documented in the APE to the northeast of the easternmost bore pit location. This tree, including its protected zone, does not occur within any proposed work area.

City of Santa Clarita Parkway Trees Ordinance

Native trees are protected under the City's Parkway Trees Ordinance (Santa Clarita Municipal Code Section 13.76). Pursuant to this ordinance, a tree permit must be obtained prior to damaging or removing any public trees within parkways or public areas.

Most of the APE occurs within private property where the City's Parkway Tree Ordinance does not apply. A small component of the APE along an unpaved access road in the western portion of the APE occurs within public property; however, no trees protected by the City's Parkway Tree Ordinance occur in this area. Public property also occurs along and immediately adjacent to Sand Canyon Road in the eastern portion of the APE, and two non-native ornamental pine (*Pinus* spp.), occur in this area.

Significant Ecological Areas

The City's General Plan and Municipal Code (Santa Clarita Municipal Code Section 17.38.080) includes treatment of the Significant Ecological Areas (SEAs) Overlay Zone as among the habitat types within the City. SEAs are defined as "ecologically important land and water systems that are valuable as plant or animal communities, often important to the preservation of threatened and endangered species, and conversation of biological diversity in the County" (City of Santa Clarita 2011a). Santa Clarita Municipal Code Section 17.38.080 requires a conformance review for development within the SEA Overlay Zone. The SCR corridor is identified as an SEA, specifically the "Santa Clara River" SEA, which extends throughout the river channel. This SEA overlaps the majority of the APE to the south of SR-14 and existing development adjacent to Sand Canyon Road, and overlaps most of the project footprint, excluding portions of the project footprint occurring in developed areas near Sand Canyon Road. While the project would not be subject to the City's building and zoning ordinances (Santa Clarita Municipal Code Titles 17 and 18) pursuant Government Code Section 53091, SCV Water would voluntarily comply with the City's code through the implementation of measures to reduce impacts (refer to AMMs BIO-1 through BIO-11) such that the project would be compliant with the City's code.

4.6 Habitat Conservation Plans

The APE is not covered by any Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan area.

5 Impact Analysis and Mitigation Measures

5.1 Special-status Species

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

1) *Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by CDFW or USFWS.*

5.1.1 Special-status Plant Species

As discussed in Section 4.1, *Special-status Species*, the CNDDB and CNPS query results include 38 special-status plant species within a nine-quadrangle search of the APE. Of these, three species have moderate potential to occur (San Fernando Valley spineflower, Parry's spineflower, and slender-horned spineflower), and one has high potential to occur (slender mariposa lily). These species have potential to occur in the chaparral (i.e., chamise chaparral), coastal scrub (i.e., big sagebrush scrub, brittle bush scrub, California buckwheat scrub, California sagebrush – California buckwheat scrub, rubber rabbitbrush scrub, scale broom scrub, California sagebrush scrub, scale broom scrub, and thick-leaved yerba santa scrub), and/or annual grassland/herbaceous habitat (i.e., wild oats and annual brome grasslands and clustered tarweed fields) within the APE. Ground disturbance from project construction would occur within some of these vegetation communities, as shown in Table 5. Ground disturbance could directly result in the damage or removal of special-status plants if present in the APE. Should special-status plant species be encountered within the work limits of the APE, direct impacts could occur through injury or mortality to individuals by heavy equipment during construction. Indirect impacts could result from habitat modifications, such as by the introduction of invasive plants disseminated from construction equipment, contamination of soils, and habitat degradation due to accidental fuel spills during construction.

San Fernando Valley spineflower, Parry's spineflower, slender-horned spineflower, and slender mariposa lily were not observed within the APE during reconnaissance surveys, but they have a moderate to high potential to occur. Given the open cut trenching construction method proposed to install the majority of the new sewer alignment, as well as access road development and soil cement bank protection proposed, individuals of these species, if present, could be removed, damaged, or disturbed by the project. Impacts to these species would be potentially significant, but mitigable through implementation of BMPs, a worker education program, pre-project botanical surveys, avoidance measures, and compensatory mitigation requirements (if applicable) as prescribed under avoidance and minimization measures (AMM) BIO-1 through BIO-5.

Table 5 Impacts to Vegetation Communities and Land Covers in the APE[1]

Vegetation Community or Land Cover Type	Temporary Project Impact (Acres)	Permanent Project Impact (Acres)	CDFW Sensitive Natural Community (Yes/No)
California buckwheat scrub	0.03	0.02	No
California sagebrush – California buckwheat scrub	0.14	0.05	No
Chamise chaparral	0.13	0.10	No
Developed	0.42	0	No
Disturbed	0.52	0.43	No
Fremont cottonwood forest and woodland	0.18	0.07	Yes
Riverwash	<0.01	0.47	No
Rubber rabbitbrush scrub	0.08	0.04	No
Tamarisk thickets	0.06	0.04	No
Thick-leaved yerba santa scrub	0.03	0.02	No
Upland mustards	0.31	0.29	No
Wild oats and annual brome grasslands	0.04	0	No
Total	**1.94**	**1.53**	**N/A**

[1] Vegetation community ranks are from CDFW (2023b).

5.1.2 Special-status Wildlife Species

Based on the database and literature review, 31 special-status wildlife species are known or have the potential to occur within the vicinity of the APE. Of the 31 wildlife species evaluated, 12 special-status wildlife species have low potential to occur, 8 have moderate potential to occur, 4 have high potential to occur in the APE, and 7 have no potential to occur. No special-status wildlife species were observed within the APE during the field survey. California legless lizard, coastal whiptail, California horned lark, and San Diego black-tailed jackrabbit have a high potential to occur in the APE. Crotch bumble bee (foraging), Santa Ana sucker, unarmored threespine stickleback, arroyo chub, arroyo toad, western spadefoot, coast horned lizard, and Cooper's hawk have a moderate potential to occur in the APE. With implementation of the AMMs described further below, potential direct and indirect impacts to special-status wildlife species would be reduced to a less-than-significant level.

Special-status Reptiles, Mammals, and Insects

Most of the special-status wildlife species that have the potential to occur within the project footprint are capable of escaping harm during project construction, while others are potentially vulnerable to direct impacts, including injury and mortality. Special-status species that could be directly impacted include potentially occurring land-dwelling animals, such as the California legless lizard, coastal whiptail, coast horned lizard, and San Diego black-tailed jackrabbit.

As Crotch bumble bee is a flying insect species, it would be capable of escaping harm during project construction while foraging. In addition, Crotch bumble does not have a moderate or high potential to nest in the APE because limited rodent dens were observed in the APE, and a large portion of the APE has been previously disturbed. Therefore, direct impacts to this species are not expected to occur as a result of the project.

The project's use of open cut trenching to install the majority of the existing line along and above the northern bank of the SCR, as well as excavations associated with jack-and-bore pits, access road development (including two bridges across Intermittent Drainage 1 and Ephemeral Drainage 1), multi-purpose trail development, and SCR soil cement bank protection has the potential to directly impact California legless lizard, coastal whiptail, coast horned lizard, and San Diego black-tailed jackrabbit. Open trench excavation would consist of excavating the soil to approximately 6 to 11 feet deep, installing a new pipe or a section of new pipe, and then backfilling the trench. Development of the access road would require vegetation clearing, grading the roadway, paving the road, installing bridge footings, and placing pre-cast bridges over Intermittent Drainage 1 and Ephemeral Drainage 1. Installation of soil cement bank protection along the northern bank of the SCR would require excavation, grading, and laying of soil cement to the desired grade. These project components have the potential to impact the aforementioned special-status species. Direct impacts could occur via direct strikes to individuals by construction equipment, or entrapment of special-status species in excavation trenches. In addition, indirect impacts could occur through vibrations and dust, which could alter behavioral patterns of land-dwelling special-status wildlife species and cause them to become exposed to predators. Implementation of AMM BIO-1 would require the sloping or fencing of trenches to prevent wildlife entrapment, and implementation of AMMs BIO-6 and BIO-7 would require pre-construction surveys for special-status wildlife species and construction monitoring. Additionally, potential impacts to federally- and state-listed wildlife species, if present, would require incidental take authorizations from the USFWS and CDFW.

Special-status Fish and Amphibian Species

There are documented occurrences of unarmored threespine stickleback, Santa Ana sucker, and arroyo chub within a nine-quadrangle search area of the APE. These species have the potential to occur in the low-flow channel of the SCR. Installation of soil cement bank protection and the multi-purpose trail along the northern bank of the SCR is expected to occur within the low-flow channel of the SCR. Direct impacts to unarmored threespine stickleback, Santa Ana sucker, and arroyo chub could occur via direct strikes to individuals by construction equipment. In addition, indirect impacts to these species could occur if project construction occurs when surface and/or standing water is present within the SCR, and construction spoils or stormwater runoff is deposited into the SCR. This could result in effects such as increased turbidity, altered pH, and/or decreased dissolved oxygen levels, which could harm special-status fish species. Implementation of AMM BIO-1 would require implementation of standard BMPs that would avoid or minimize construction leaks or spills, and implementation of AMM BIO-8 would restrict the construction window to when surface water is absent, which would avoid impacts to unarmored threespine stickleback, Santa Ana sucker, and arroyo chub. Direct impacts to arroyo toad and western spadefoot could occur during project construction within suitable aquatic habitat (i.e., SCR channel) and upland habitat (i.e., scrub and grassland habitat) through direct strikes to individuals, should they occur. In addition, indirect impacts could occur through vibrations, noise, lighting, and dust, which could alter behavioral patterns of these individuals and lead to mortality. Implementation of AMM BIO-1 would require standard construction BMPs, and AMMs BIO-6 and BIO-7 would require implementation of pre-construction surveys for western spadefoot and arroyo toad, as well as construction monitoring. With implementation of AMM BIO-1, and BIO-6 through BIO-8, impacts to western spadefoot and arroyo toad would be reduced to less-than-significant levels.

Special-status and Nesting Birds

The nests of most native birds and raptors are state and federally protected. It is likely birds use the APE for nesting (generally from early February through late August) given the mix of native and non-native vegetation, as well as the number of bird species and individuals observed during the survey. Implementation of the proposed project could result in direct or indirect impacts to nesting birds, through the direct removal or trimming of shrubs and trees which provide suitable nesting habitat. Project-related noise, vibration, and increased lights can lead to the disturbance of nesting birds which may have a negative impact on the animals. Although temporary, such disturbance can lead to the abandonment of a bird nest.

The project has potential to result in direct and indirect impacts to nesting birds, including CDFW SSC (i.e., Cooper's hawk and California horned lark), and species protected under the MBTA and CFGC 3503, if they are nesting within the APE and/or immediate vicinity during construction activities. Construction would occur within scrub (California sagebrush – California buckwheat scrub, chamise chaparral, rubber rabbitbrush scrub, thick-leaved yerba santa scrub) and woodland (Fremont cottonwood forest and woodland and tamarisk thickets) vegetation communities that have the potential to support nesting birds and raptors, including Cooper's hawk. Direct impacts from construction activities include ground disturbance and removal of vegetation, which could potentially contain birds' nests. Indirect impacts include construction noise, lighting, and fugitive dust. These impacts could lead to individual mortality or harassment that might reduce nesting success. Therefore, AMM BIO-9 would require a pre-construction nesting bird survey and protective buffers if nesting birds are found. In addition, AMM BIO-6 and BIO-7 would identify and protect any special-status bird species (i.e., Cooper's hawk and California horned lark) within the APE prior to and during initial ground disturbance, which would further reduce potential direct and indirect impacts associated with the project.

5.1.3 Recommended Avoidance, Minimization, and Mitigation Measures

Implementation of AMMs BIO-1 through BIO-9 would reduce impacts to special-status species to less-than-significant levels.

BIO-1 General Best Management Practices

General requirements which should be followed by construction personnel are listed below.

- The contractor should clearly delineate the construction limits and prohibit any construction-related traffic outside those boundaries.
- Project-related vehicles should observe a 10-mile per hour speed limit within the unpaved limits of construction.
- All open trenches or excavations should be fenced and/or sloped to prevent entrapment of wildlife species.
- All food-related trash items such as wrappers, cans, bottles, and food scraps generated during proposed project construction should be disposed of in closed containers only and removed daily from the project site.
- Project-related vehicles and equipment should be inspected for weeds prior to entering the project site.
- Project-related materials (e.g., straw wattles) should be sourced from weed-free materials.

- No deliberate feeding of wildlife should be allowed.
- No pets should be allowed on the project site.
- No firearms should be allowed on the project site.
- If vehicle or equipment maintenance is necessary, it should be performed in the designated staging areas.
- If construction lighting is used, it should be shielded and directed downward to minimize the potential for glare or spillover onto adjacent properties and to reduce impacts on local wildlife.
- During construction, heavy equipment should be operated in accordance with standard BMPs. All equipment used on-site should be properly maintained to avoid leaks of oil, fuel, or residues. Provisions should be in place to remediate any accidental spills.
- While encounters with special-status species are not anticipated, any worker who inadvertently injures or kills a special-status species or finds one dead, injured, or entrapped should immediately report the incident to the construction foreman or biological monitor. The construction foreman or biological monitor should immediately notify SCV Water. SCV Water should follow up with written notification to USFWS and/or CDFW within five working days of the incident. All observations of special-status species should be recorded on CNDDB field sheets and sent to CDFW by SCV Water or the biological monitor.

BIO-2 Worker Environmental Awareness Program

A lead biological monitor should conduct a pre-project environmental education program for all personnel working at the site, which should be focused on conditions and protocols necessary to avoid and minimize potential impacts to biological resources. Prior to initiation of construction activities (including staging and mobilization), all personnel associated with project construction should attend a Worker Environmental Awareness Program (WEAP) training, conducted by a qualified biologist, to aid workers in recognizing special-status biological resources potentially occurring in the project area. This training should include information about the special-status species with potential to occur in the project area. The specifics of this program should include identification of special-status species and habitats, a description of the regulatory status and general ecological characteristics of special-status resources, and review of the limits of construction and measures required to avoid and minimize impacts to biological resources within the work area. A fact sheet conveying this information should be prepared for distribution to all contractors, their employees, and other personnel involved with construction of the project. All employees working at the project site should sign a form provided by the trainer documenting they have attended the WEAP and understand the information presented to them. The crew foreman should be responsible for ensuring crew members adhere to the guidelines and restrictions designed to avoid impacts to special-status species.

BIO-3 Special-status Plant Surveys

To avoid impacts to special-status plants, surveys for special-status plants should be completed prior to any vegetation removal, grubbing, or other construction activity within the project site. The surveys should be floristic in nature, seasonally timed to coincide with the blooming period of the target species (slender mariposa lily, San Fernando Valley spineflower, Parry's spineflower, and slender-horned spineflower), and be conducted by a qualified biologist.

Special-status plant species identified on-site should be mapped onto a site-specific aerial photograph and topographic map. Surveys should be conducted in accordance with the most

current protocols established by the CDFW and USFWS. A report of the survey results should be submitted to SCV Water for review and approval.

BIO-4 Special-status Plant Avoidance Measures

If special-status plants are detected during special-status plant surveys, avoidance of the special-status plants should occur where feasible and vegetation clearing within 50 feet of any identified rare plant should be conducted by hand, if practicable. Any rare plant occurrence should have bright orange protective fencing installed at least 50 feet beyond its extent, or another distance as approved by a qualified biologist, to protect it from harm.

If avoidance is not feasible, SCV Water should offset the proposed loss of individual plants at a minimum 1:1 ratio by on-site restoration (salvage, replanting, and propagation) detailed in AMM BIO-5. The open scrub and grassland habitats in the APE would be a suitable location for on-site restoration. Compensation for impacts to these species may also be accomplished by preservation of on-site populations or off-site populations in the vicinity of the site at a 1:1 ratio if present.

BIO-5 Special-status Plant Mitigation and Monitoring Plan

If special-status plants are detected and would be impacted by project construction, a Special-status Plant Mitigation and Monitoring Plan that provides for the replacement of the species impacted by the project should be developed by a qualified restoration specialist. The Special-status Plant Mitigation and Monitoring Plan would be prepared for both on-site and off-site mitigation.

The Special-status Plant Mitigation and Monitoring Plan should specify the following:

- A summary of impacts;
- The location of the mitigation site;
- Methods for harvesting seeds or salvaging and transplanting individuals to be impacted;
- Measures for propagating plants or transferring living plants from the salvage site to the mitigation site;
- Site preparation procedures for the mitigation site;
- A schedule and action plan to maintain and monitor the mitigation area;
- Criteria and performance standards by which to measure the success of the mitigation, including replacement of impacted plants at a minimum 1:1 ratio;
- Measures to exclude unauthorized entry into the mitigation areas; and
- Contingency measures such as replanting or weeding if mitigation efforts are not successful.

The performance standards for the Special-Status Plant Mitigation and Monitoring Plan should be at a minimum the following:

- Within five years after introducing the plants to the mitigation site, the number of established, reproductive plants should equal the number lost to project construction, and
- Restoration will be considered successful after the success criteria have been met for a period of at least 2 years without any maintenance or remediation activities other than invasive species control.

The Special-status Plant Mitigation and Monitoring Plan should be prepared prior to development of the project and implemented during project construction and should continue thereafter for a five-

year period. It can also be combined with the Habitat Revegetation, Restoration, and Monitoring Program described under AMM BIO-10, below.

Annual reports discussing the implementation, monitoring, and management of the Special-status Plant Mitigation and Monitoring Plan should be submitted to SCV Water. Five years after the start of the mitigation project, a final report should be submitted, which should at a minimum discuss the implementation, monitoring, and management of the Special-status Plant Mitigation and Monitoring Plan over the five-year period and indicate whether the Special-status Plant Mitigation and Monitoring Plan has been successful based on established performance standards. Should the success criteria be met before Year Five, the mitigation effort can be deemed complete.

BIO-6 Pre-activity Survey

Prior to commencement of ground or vegetation disturbing activities at the project site, a qualified biologist should conduct two surveys for special-status wildlife species. The first survey should be conducted no more than fourteen (14) days prior to commencement of project activities and the second survey should be conducted no more than three (3) days prior to the commencement of project activities. The survey should incorporate methods to detect the special-status wildlife species that could potentially occur at the site. In addition, prior to commencement of project activities, a qualified biologist should be retained to conduct focused surveys according to the USFWS Survey Protocol for the Arroyo Toad (USFWS 1999).

If special-status species are observed within the project site during pre-activity surveys, a qualified biologist should draft a “Species Protection Plan” prior to the initiation of construction. At a minimum, the plan should include avoidance and minimization measures for each observed species. These measures may include, but are not limited to:

- Species-specific Worker Environmental Awareness Program materials;
- Relocation methods including planned relocation areas for the protection of special-status species; and/or
- Reporting requirements.

To the extent feasible, special-status species should be avoided. If avoidance is not feasible, the species should be captured and transferred to an appropriate habitat and location on-site where it would not be harmed by project activities. The biologist should hold the requisite permits for the capture and handling of the species, if applicable. Prior to commencement of the proposed activity, the methods and results of the surveys and, if a special-status species is found, the measures to be employed to avoid impacts to the species should be presented in a letter report to SCV Water.

BIO-7 Qualified Biological Monitor

A qualified biological monitor familiar with special-status species with potential to occur in the project site should be present during initial ground disturbance or vegetation removal activities. The biological monitor should have the authority to temporarily stop work if one or more special-status amphibian, reptile, or mammals are observed; the monitor should then relocate these individuals to suitable undisturbed habitat, outside the areas directly and indirectly affected by ground disturbance activities. The biologist should hold the requisite incidental take permits or authorizations for the capture and handling of the species, if applicable.

The monitor should recommend measures to ensure compliance with all avoidance and minimization measures, applicable permit conditions, and any conditions required by SCV Water. When the biological monitor is present on site, they should be responsible for:

- Ensuring procedures for verifying compliance with environmental mitigation are followed;
- Lines of communication and reporting methods;
- Daily and weekly reporting of compliance;
- Construction crew WEAP training;
- Authority to stop work; and
- Action to be taken in the event of non-compliance.

BIO-8 Dry Season Construction

To eliminate the potential for impacts to the unarmored threespine stickleback, Santa Ana sucker, arroyo chub, arroyo toad, and western spadefoot and to minimize impacts to wildlife movement corridors, construction associated with soil cement bank protection and multi-purpose trail development along the northern bank of the SCR should be restricted to the dry season. This period generally occurs from May 1 to September 15; however, construction can occur outside this window provided no flowing or ponded water associated with the SCR is present within 50 feet of any work area. In addition, surface elevations within Ephemeral Drainage 1 and Intermittent Drainage 1 should be returned to preconstruction conditions prior to the end of the dry season.

BIO-9 Nesting Birds

Project-related activities should occur outside of the bird breeding season (generally February 1 to August 31) to the extent practicable. If construction must occur within the bird breeding season, then no more than seven days prior to initiation of ground disturbance and/or vegetation removal, a nesting bird pre-construction survey should be conducted by a qualified biologist within the disturbance footprint plus a 100-foot buffer (300-feet for raptors), where feasible. If the proposed project is phased or construction activities stop for more than one week, a subsequent pre-construction nesting bird survey should be required prior to each phase of construction during the nesting season.

Pre-construction nesting bird surveys should be conducted during the time of day when birds are active and should factor in sufficient time to perform this survey adequately and completely. A report of the nesting bird survey results, if applicable, should be submitted to SCV Water for review and approval prior to ground and/or vegetation disturbance activities.

If nests are found, their locations should be flagged. An appropriate avoidance buffer ranging in size from 25 to 50 feet for passerines and up to 300 feet for raptors, depending upon the species and the proposed work activity, should be determined and demarcated by a qualified biologist with bright orange construction fencing or other suitable flagging. Active nests should be monitored at a minimum of once per week until it has been determined the nest is no longer being used by either the young or adults. No ground or vegetation disturbance should occur within this buffer until the qualified biologist confirms the breeding/nesting is completed and all the young have fledged. If project activities must occur within the buffer, they should be conducted at the discretion of the qualified biologist. The nesting bird buffer zones may also be extended at the discretion of the qualified biologist based on field observations of nesting bird behavior. If no nesting birds are observed during pre-construction surveys, no further actions would be necessary.

5.2 Sensitive Plant Communities

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

b) Have a substantial adverse impact on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by CDFW or USFWS.

As shown in Figure 5a-Figure 5b, three CDFW-designated sensitive plant communities occur in the APE: clustered tarweed fields (ranked G2S2), Fremont cottonwood forest and woodland (ranked G4S3), and scale broom scrub (ranked G3S3; CDFW 2023b). Temporary and permanent impacts to sensitive plant communities would be limited to the Fremont cottonwood forest and woodland community (Table 6). Direct impacts to Fremont cottonwood forest and woodland include vegetation removal within the project footprint in order to install the sewer pipeline and access road. Implementation of AMM BIO-10 and BIO-11 will compensate for direct impacts to sensitive plant communities, as well as riparian habitat associated with the SCR, Intermittent Drainage 1, and Ephemeral Drainage 1. Indirect impacts could also occur through introduction of invasive plant species to the APE, which could negatively impact sensitive plant communities. Implementation of AMM BIO-1 includes the use of weed-free construction materials (e.g., straw wattles) and inspecting construction-related vehicles and equipment for weeds prior to entering the project site. This would reduce the potential for indirect impacts to sensitive plant communities. Impacts to sensitive plant communities would be less than significant with mitigation incorporated.

Table 6 Impacts to Sensitive Plant Communities in the APE[1]

Vegetation Community or Land Cover Type	Temporary Project Impact (Acres)	Permanent Project Impact (Acres)	Habitat Type	CDFW Sensitive Natural Community (Yes/No)
Fremont cottonwood forest and woodland	0.18	0.07	Riparian	Yes

[1] Vegetation community ranks are from CDFW (2023b).

5.2.1 Recommended Avoidance, Minimization, and Mitigation Measures

Implementation of AMMs BIO-10 and BIO-11 would reduce impacts to sensitive plant communities to less-than-significant levels.

BIO-10 Habitat Revegetation, Restoration, and Monitoring Program

Impacts to sensitive plant communities should be avoided to the greatest extent feasible. If avoidance is not feasible, mitigation for unavoidable impacts to sensitive plant communities can be accomplished either through on-site restoration, off-site restoration, or purchase of credits through an approved Mitigation Bank. Compensatory mitigation for unavoidable impacts to sensitive plant communities should be accomplished at a ratio of 1:1. If on-site or off-site restoration occurs, a Habitat Revegetation, Restoration, and Monitoring Program should be prepared and submitted for approval to SCV Water prior to initiating impacts. At minimum, the Habitat Revegetation, Restoration, and Monitoring Program should include the following:

- A description of the purpose and goals of the restoration
- Identification of success criteria and performance standards

- Methods of site preparation
- Irrigation plan and schedule
- BMPs
- Maintenance and monitoring program
- Adaptive management strategies
- Key stakeholders and responsible parties
- Funding
- Contingencies

BIO-11 Jurisdictional Habitat Best Management Practices

The following best management practices for construction within jurisdictional habitat should be followed by construction personnel:

- Materials should be stored on impervious surfaces or plastic ground covers to prevent any spills or leakage and should be at least 50 feet from drainage features. Construction materials and spoils should be protected from stormwater runoff using temporary perimeter sediment barriers such as berms, silt fences, fiber rolls, covers, sand/gravel bags, and straw bale barriers, as appropriate.
- All vehicles and equipment should be in good working condition and free of leaks. The contractor should prevent oil, petroleum products, or any other pollutants from contaminating the soil or entering a watercourse (dry or otherwise). When vehicles or equipment are stationary, mats or drip pans should be placed below vehicles to contain fluid leaks.
- All re-fueling, cleaning, and maintenance of equipment will occur at least 50 feet from potentially jurisdictional waters.
- Adequate spill prevention and response equipment should be maintained on-site and readily available to implement to ensure minimal impacts to the aquatic and marine environments.
- Compensatory mitigation for permanent impacts to the Santa Clara River and the two unnamed drainages (Ephemeral Drainage 1 and Intermittent Drainage 1) can be accomplished either through purchase of credits through an approved Mitigation Bank or through SCV Water sponsored mitigation (e.g., on-site restoration). Compensatory mitigation should be determined and approved by CDFW, USACE and RWQCB prior to impacting state- or federally-regulated waters. If on-site restoration would occur, it would be accomplished through implementation of a Habitat Revegetation, Restoration, and Monitoring Program as contained in AMM BIO-10.

5.3 Jurisdictional Waters and Wetlands

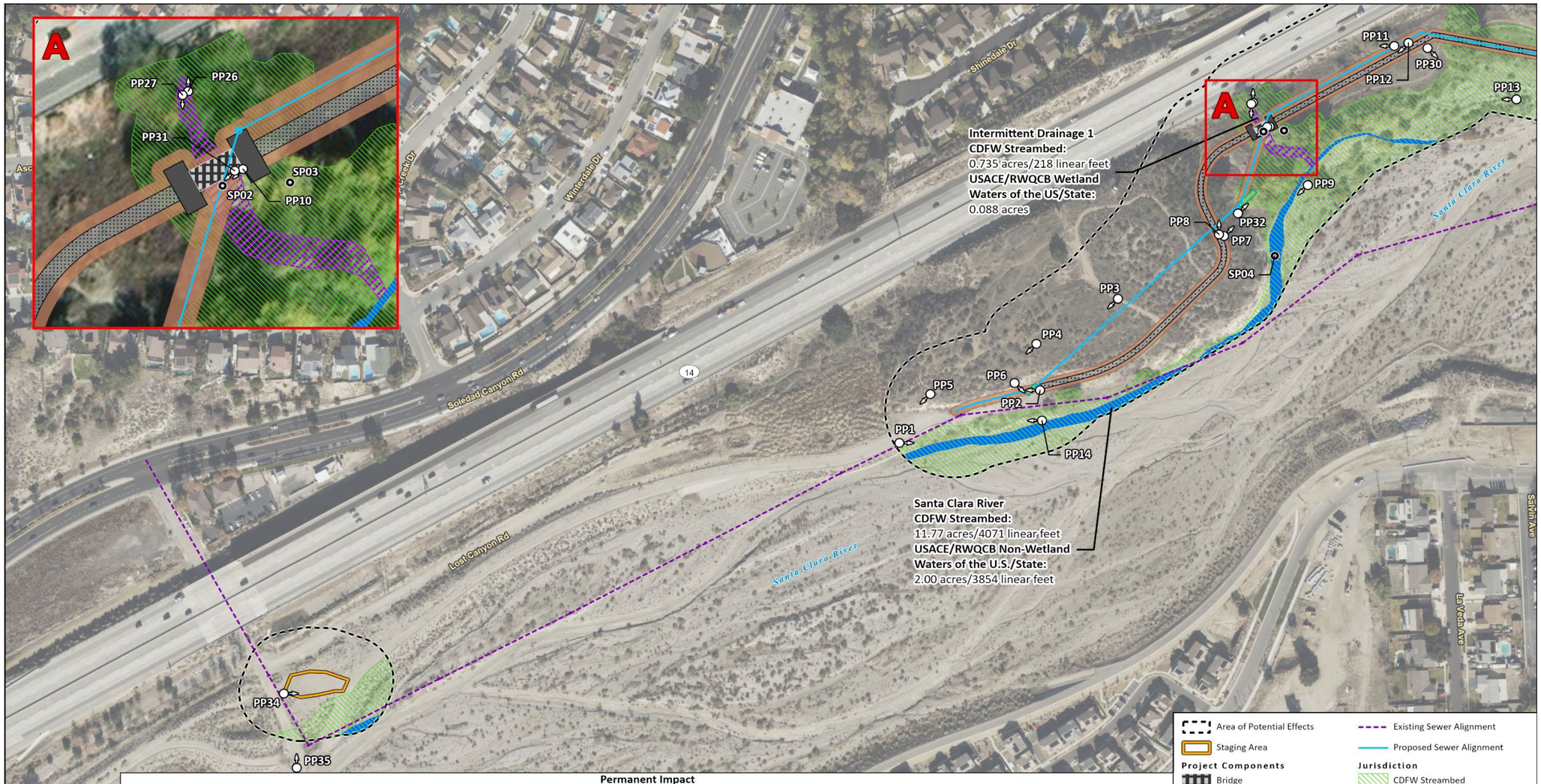
The proposed project would have a significant effect on biological resources if it would:

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

The SCR and two unnamed drainages (Ephemeral Drainage 1 and Intermittent Drainage 1) within the APE are potentially subject to the jurisdiction of USACE, RWQCB, and/or CDFW. Project construction would involve the installation of a new sewer line along the northern bank of the SCR and would include soil cement bank protection for the proposed sewer line where the SCR bank is

unstable and subject to scouring (Appendix D, Photographs 15 and 28). The project also includes the development of an access road across Intermittent Drainage 1 and Ephemeral Drainage 1. Two pre-cast arch design bridges and bridge footings would be installed where the access road crosses these drainage features. Permanent and temporary impacts to potentially jurisdictional features are shown in Figure 7a-Figure 7b, as well as in Table 7 and Table 8 below.

Figure 7a Potentially Jurisdictional Resources Impacts - West



Permanent Impact				
Feature	**CDFW Streambed**	**USACE/RWQCB Non-Wetland Waters of the U.S./State**	**RWQCB Non-Wetland Waters of the State**	**USACE/RWQCB Wetland Waters of the U.S./State**
Santa Clara River	0.713 acres/1974 linear feet	0.162 acres/625 linear feet	-	-
Ephemeral Drainage 1	0.027 acres/352 linear feet	-	0.0005 acres/9 linear feet	-
Intermittent Drainage 1	0.047 acres/114 linear feet	-	-	-
Temporary Impact				
Feature	**CDFW Streambed**	**USACE/RWQCB Non-Wetland Waters of the U.S./State**	**RWQCB Non-Wetland Waters of the State**	**USACE/RWQCB Wetland Waters of the U.S./State**
Santa Clara River	0.167 acres/949 linear feet	-	-	-
Ephemeral Drainage 1	0.044 acres/201 linear feet	-	0.007 acres/ 22 linear feet	-
Intermittent Drainage 1	0.143 acres/474 linear feet	-	-	0.021 acres

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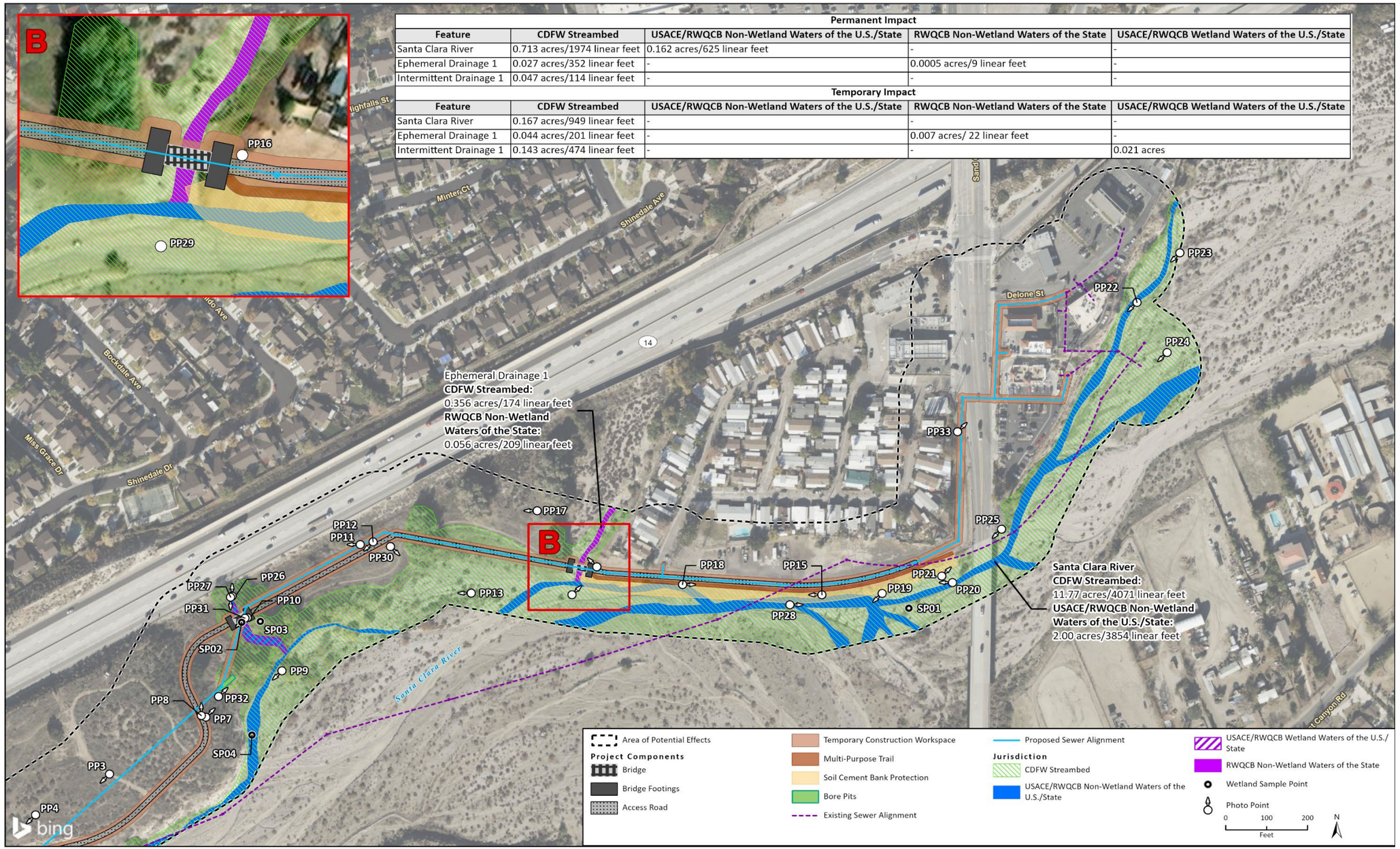
22-13523 Sand Cnyn Sewer Reloc
Fig 6A Jurisdictional Delineation

Figure 7b Potentially Jurisdictional Resources Impacts - East

Permanent Impact				
Feature	**CDFW Streambed**	**USACE/RWQCB Non-Wetland Waters of the U.S./State**	**RWQCB Non-Wetland Waters of the State**	**USACE/RWQCB Wetland Waters of the U.S./State**
Santa Clara River	0.713 acres/1974 linear feet	0.162 acres/625 linear feet	-	-
Ephemeral Drainage 1	0.027 acres/352 linear feet	-	0.0005 acres/9 linear feet	-
Intermittent Drainage 1	0.047 acres/114 linear feet	-	-	-
Temporary Impact				
Feature	**CDFW Streambed**	**USACE/RWQCB Non-Wetland Waters of the U.S./State**	**RWQCB Non-Wetland Waters of the State**	**USACE/RWQCB Wetland Waters of the U.S./State**
Santa Clara River	0.167 acres/949 linear feet	-	-	-
Ephemeral Drainage 1	0.044 acres/201 linear feet	-	0.007 acres/ 22 linear feet	-
Intermittent Drainage 1	0.143 acres/474 linear feet	-	-	0.021 acres



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22-13523 Sand Cnyn Sewer Reloc
Fig 6B Jurisdictional Delineation

Table 7 Permanent Impacts to Potentially Jurisdictional Areas

	USACE Jurisdiction		RWQCB Jurisdiction		CDFW Jurisdiction
Feature	Non-Wetland Waters of the U.S. (acres/ linear feet)	Wetland Waters of the U.S. (acres)	Non-Wetland Waters of the State (acres/ linear feet)	Wetland Waters of the State (acres)	Streambed and Associated Riparian Habitat (acres/ linear feet)
Santa Clara River	0.16/625	0	0.16/625	0	0.71/1,974
Intermittent Drainage 1	0/0	0	0/0	0	0.05/114
Ephemeral Drainage 1	0/0	0	<0.01/9	0	0.03/352
Total	0.16/625	**0**	0.16/634	**0**	**0.79/2,440**

Table 8 Temporary Impacts to Potentially Jurisdictional Areas

	USACE Jurisdiction		RWQCB Jurisdiction		CDFW Jurisdiction
Feature	Non-Wetland Waters of the U.S. (acres/ linear feet)	Wetland Waters of the U.S. (acres)	Non-Wetland Waters of the State (acres/ linear feet)	Wetland Waters of the State (acres)	Streambed and Associated Riparian Habitat (acres/ linear feet)
Santa Clara River	0/0	0	0/0	0	0.167/949
Intermittent Drainage 1	0/0	0.021	0/0	0.021	0.143/474
Ephemeral Drainage 1	0/0	0	<0.01/22	0	0.044/201
Total	**0/0**	**0.021**	**0.007/22**	**0.021**	**0.354/1,624**

Prior to ground disturbance activities that could impact these features, SCV Water should consult with the appropriate regulatory agencies (USACE, Los Angeles RWQCB, and/or CDFW) anticipated to assert jurisdiction over the features. The project is anticipated to require a Lake and Streambed Alteration Agreement from the CDFW, a Water Quality Certification under Clean Water Act Section 401 from the Los Angeles RWQCB, and verification from the USACE under Nationwide Permit 58. Based on such consultation, any required permits must be obtained prior to disturbance of jurisdictional resources. With implementation of AMM BIO-10 and AMM BIO-11 and adherence to agency permits and existing regulations, potential direct and indirect impacts to jurisdictional waters and wetlands would be reduced to a less-than-significant level.

5.4 Wildlife Movement

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

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

Wildlife movement corridors can be both large- and small-scale. At the regional/landscape-level scale, the APE is included as a relatively less permeable Essential Connectivity Area in the California

Essential Habitat Connectivity Project: A Strategy for Conserving a Connected California (Spencer et al. 2010). Habitat corridors are present within the APE, notably including the SCR. The SCR has headwaters in the San Gabriel Mountains and flows westward approximately 84 miles to the Oxnard Plain, where it discharges into the Pacific Ocean. This is the largest river system in southern California that remains in a relatively natural state, and it connects highly diverse habitat types.

The SCR provides a valuable movement and migration corridor for many types of wildlife, including terrestrial, semi-aquatic, and aquatic species. Construction activities would not occur within the bed of the SCR, as project components only occur along the northern bank (i.e., soil cement bank protection) or above the northern bank (i.e., sewer line installation, access road development). Additionally, construction activities would be short-term and would only occur during the daytime. Project construction would not result in a decrease in the function of the corridor for wildlife movement, as the optimal path for wildlife movement (i.e., SCR) would remain intact during implementation of the project. Migrating wildlife would have the ability traverse around the work area (i.e., to the south) during construction and continue migrating through the SCR channel. In addition, implementation of BMPs in accordance with AMM BIO-1, including measures to prevent wildlife entrapment (e.g., sloping trenches) and shielding/directing light downward, would reduce potentially significant impacts to wildlife movement to a less-than-significant level.

Moreover, with implementation of AMM BIO-8, construction along the northern bank of the SCR bed will only occur when the river is dry (i.e., no flowing water). Therefore, impacts to resident or migratory fish would be less than significant.

Project operation would not increase activities that could impact wildlife movement beyond existing conditions. The project would be located below ground and would not 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. Impacts would be less than significant.

5.5 Local Policies and Ordinances

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

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

City of Santa Clarita General Plan and Vista Canyon Specific Plan

The objectives and policies of the City of Santa Clarita General Plan and Vista Canyon Specific Plan focus on conservation of existing natural areas; restoration of damaged natural vegetation; protection of wetlands, oak trees, and other indigenous woodlands and endangered or threatened species and habitat; and protection of biological resources in SEAs and significant wildlife corridors. With implementation of AMMs BIO-1 through BIO-11, impacts to biological resources would be less than significant and the project would not conflict with policies protecting biological resources in the City of Santa Clarita General Plan and Vista Canyon Specific Plan. Impacts would therefore be less than significant with mitigation incorporated.

City of Santa Clarita Oak Tree Preservation Ordinance and Parkway Trees Ordinance

One coast live oak tree was documented in the APE to the northeast of the easternmost bore pit location. This tree, including its protected zone, does not occur within any proposed work area, and will not be impacted by the project. Additionally, the majority of the APE occurs within private property where the City's Parkway Trees Ordinance does not apply. A small component of the APE along an unpaved access road in the western portion of the APE occurs within public property, and no trees protected by the City's Parkway Trees Ordinance occur in this area. As such, the project would not conflict with the City's Oak Tree Preservation Ordinance and Parkway Trees Ordinance, and no further actions are recommended.

Significant Ecological Areas

Project construction would potentially affect the Santa Clara River SEA and its biological resources due to construction activity in the APE. While the project would not be subject to the City's building and zoning ordinances (Santa Clarita Municipal Code Titles 17 and 18) pursuant Government Code Section 53091, SCV Water would voluntarily comply with the City's code through the implementation of measures to reduce impacts (refer to AMMs BIO-1 through BIO-11) such that the project would be compliant with the City's code.

5.6 Habitat Conservation Plans

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

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

The APE is not located within any Habitat Conservation Plans, Natural Community Conservation Plans, or other approved local, regional, or state habitat conservation plan area. Therefore, no impact would occur, and no mitigation measures are recommended.

6 Limitations, Assumptions, and Use Reliance

This Biological Resources Assessment has been performed in accordance with professionally accepted biological investigation practices conducted at this time and in this geographic area. The biological investigation is limited by the scope of work performed. Reconnaissance biological surveys for certain taxa may have been conducted as part of this assessment but were not performed during a particular blooming period, nesting period, or particular portion of the season when positive identification would be expected if present, and therefore, cannot be considered definitive. The biological surveys are limited also by the environmental conditions present at the time of the surveys. In addition, general biological (or protocol) surveys do not guarantee the organisms are not present and will not be discovered in the future within the site. In particular, mobile wildlife species could occupy the site on a transient basis or re-establish populations in the future. Our field studies were based on current industry practices, which change over time and may not be applicable in the future. No other guarantees or warranties, expressed or implied, are provided. The findings and opinions conveyed in this report are based on findings derived from site reconnaissance, jurisdictional areas, review of CNDDB RareFind5, and specified historical and literature sources. Standard data sources relied upon during the completion of this report, such as the CNDDB, may vary with regard to accuracy and completeness. In particular, the CNDDB is compiled from research and observations reported to CDFW that may or may not have been the result of comprehensive or site-specific field surveys. Although Rincon believes the data sources are reasonably reliable, Rincon cannot and does not guarantee the authenticity or reliability of the data sources it has used. Additionally, pursuant to our contract, the data sources reviewed included only those that are practically reviewable without the need for extraordinary research and analysis.

7 References

Allen, Edith B. 1996. Characterizing the habitat of slender-horned spineflower (*Dodecahema leptoceras*). Ecological analysis prepared for California Department of Fish and Game. Contract No. FG-4632-R5.

Brady and Vyverberg. 2013. Methods to Describe and Delineate Episodic Stream Processes on Arid Landscapes for Permitting Utility-scale Solar Power Plants. February 2014.

California Department of Fish and Wildlife (CDFW). 1994. A Field Guide to Lake and Streambed Alteration Agreements Section 1600-1607 California Fish and Game Code. January 1994.

_____. 2023a. California Natural Diversity Database (CNDDB), Rarefind V. Accessed December 2023.

_____. 2023b. California Sensitive Natural Communities. June 1, 2023. https://wildlife.ca.gov/Data/VegCAMP/Natural-Communities (accessed December 2023).

California Invasive Plant Council (Cal-IPC). 2023. The Cal-IPC Inventory: Southwest Jepson Region. https://websoilsurvey.sc.egov.usda.gov/App/HomePage.htm (accessed December 2023).

California Native Plant Society. 2023a. Inventory of Rare and Endangered Plants. V.7-08c-Interim 8-22-02. www.rareplants.cnps.org (accessed December 2023).

_____. 2023b. A Manual of California Vegetation, Online Edition. http://www.cnps.org/cnps/vegetation/ (accessed December 2023).

Calflora. 2023. Information on California plants for education, research and conservation, with data contributed by public and private institutions and individuals. Berkeley, California: The Calflora Database [a non-profit organization]. Available: https://www.calflora.org/ (Accessed December 2023).

City of Santa Clarita. 2010. Vista Canyon Specific Plan Environmental Impact Report – Biological Resources Section. SCH No. 2007071039. Available online at https://ceqanet.opr.ca.gov/2007071039/4 (Accessed December 2023).

_____. 2011a. Santa Clarita General Plan, Conservation and Open Space Element. https://www.codepublishing.com/CA/SantaClarita/html/SantaClaritaGP/SantaClaritaGP.html (accessed December 2023).

_____. 2011b. City of Santa Clarita Draft Vista Canyon Specific Plan. Available online at: https://filecenter.santa-clarita.com/CommDev/SpecificPlans/VistaCanyon/Table%20of%20Contents.pdf (accessed December 2023).

Dudek. 2013. Biological Constraints Survey Report for the Newhall County Water District Proposed Sewer Pipeline Relocation Project, City of Santa Clarita, California. August 26, 2013.

Google Earth Pro. 2023. Accessed December 2023.

Howard, Janet L. 1995. Lepus californicus. In: Fire Information System, U.S. Department of Agriculture, Forest Service. www.fs.fed.us/database/feis/animals/mammal/leca/all.html (accessed December 2023).

Jepson Flora Project (eds.) 2023. Jepson eFlora. Available at: https://ucjeps.berkeley.edu/eflora/. Accessed December 2023.

Moyle, P. B. 1976. Inland Fishes of California. University of California Press, Berkeley, CA, USA.

Sawyer, J. O., T. Keeler-Wolf, and J.M. Evens. 2009. A Manual of California Vegetation, Second Edition. California Native Plant Society, Sacramento, California.

Spencer, W.D., P. Beier, K. Penrod, K. Winters, C. Paulman, H. Rustigian-Romsos, J. Strittholt, M. Parisi, and A. Pettler. 2010. California Essential Habitat Connectivity Project: A Strategy for Conserving a Connected California. Prepared for California Department of Transportation, California Department of Fish and Game, and Federal Highways Administration.

Tres, J. 1992. Breeding biology of the Arroyo Chub, Gila orcutti (Pisces: Cyprinidae). Thesis, California Polytechnic State University, Pomona, USA.

United States Army Corps of Engineers (USACE). Environmental Laboratory. 1987. Technical Report Y-97-1. In: United States Army Corps of Engineers Wetlands Delineation Manual. United States Army Corps of Engineers Waterways Experiment Station. Vicksburg, MS.

_____. 2004. Review of Ordinary High-Water Mark Indicators for Delineating Arid Streams in the Southwest United States. Technical Report ERDC TR-04-1. U.S. Army Engineer Research and Development Center, Cold Regions Research and Engineering Laboratory. Hanover, New Hampshire.

_____. 2005. Regulatory Guidance Letter No. 05-05: Ordinary High-Water Mark Identification. U.S. Army Corps of Engineers. Washington, D.C.

_____. 2006. Indicators and Their Reliability in Identifying the Limits of “Waters of the United States” in Arid Southwestern Channels. Cold Regions Research and Engineering Laboratory (U.S.) and Engineer Research and Development Center (U.S.).

_____. 2008a. Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region (Version 2.0). United States Army Corps of Engineers Research and Development Center. Vicksburg, MS. September

_____. 2008b. A Field Guide to the Identification of the Ordinary High Water mark (OHWM) in the Arid West Region of the Western United States. Technical Report ERDC/CRREL TR-08-12. U.S. Army Engineer Research and Development Center, Cold Regions Research and Engineering Laboratory. Hanover, New Hampshire.

_____. 2010. Updated Datasheet for the Identification of the Ordinary High Water Mark (OHWM) in the Arid West Region of the Western United States. Technical Report ERDC/CRREL TN-10-1. U.S. Army Engineer Research and Development Center, Cold Regions Research and Engineering Laboratory. Hanover, New Hampshire.

_____. 2020. Arid West Regional Wetland Plant List. Website. Available at: https://cwbi-app.sec.usace.army.mil/nwpl_static/data/DOC/lists_2020/Regions/pdf/reg_AW_2020v1.pdf

United States Army Corps of Engineers (USACE) and United States Environmental Protection Agency (USEPA). 2020. Joint Memorandum to the Field Between the U.S. Department of the Army, Corps of Engineers and the U.S. Environmental Protection Agency Concerning Exempt Construction or Maintenance of Irrigation Ditches and Exempt Maintenance of Drainage Ditches Under Section 404 of the Clean Water Act. U.S. Army Engineer Research and Development Center, Cold Regions Research and Engineering Laboratory. Hanover, New Hampshire.

United States Department of Agricultural, Natural Resources Conservation Service (USDA NRCS). 2023a. Web Soil Survey. https://websoilsurvey.sc.egov.usda.gov/App/HomePage.htm (accessed December 2023).

_____. 2023b. Lists of Hydric Soils. National Cooperative Soil Survey, U.S. Department of Agriculture. https://www.nrcs.usda.gov/wps/portal/nrcs/main/soils/use/hydric/ (accessed December 2023).

United States Fish and Wildlife Service (USFWS). 1999. Survey Protocol for the Arroyo Toad. May 19, 1999. Available online at: https://www.fws.gov/sites/default/files/documents/survey-protocol-for-arroyo-toad.pdf (accessed December 2023).

_____. 2023a. Information for Planning and Consultation online project planning tool. https://ecos.fws.gov/ipac/ (accessed December 2023).

_____. 2023b. Critical Habitat Portal. https://ecos.fws.gov/ecp/report/table/critical-habitat.html (accessed December 2023).

_____. 2023c. National Wetland Inventory Data Mapper. https://www.fws.gov/wetlands/Data/Mapper.html (accessed December 2023).

_____. 2023d. Species Profile for the Santa Ana Sucker (Catostomus santaanae). https://www.fws.gov/species/santa-ana-sucker-catostomus-santaanae (Accessed December 2023).

United States Geological Survey (USGS). 2023a. USGS US Topo 7.5-minute map for Mint Canyon, California 2023: USGS - National Geospatial Technical Operations Center.

_____. 2023b. National Hydrography Dataset. https://viewer.nationalmap.gov/advanced-viewer/ (accessed December 2023).

Western Regional Climate Center. 2023. Climate of California. www.wrcc.dri.edu/Climate/narrative_ca.php (accessed December 2023).

Zeiner, D., W.F. Laudenslayer, Jr., and K.E. Mayer. 1988. California's Wildlife. California Statewide Wildlife Habitat Relationship System, Volumes I, II, & III. California Department of Fish and Wildlife.

8 List of Preparers

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Jurisdictional Evaluation

- Kyle Gern, Biologist

Appendix A

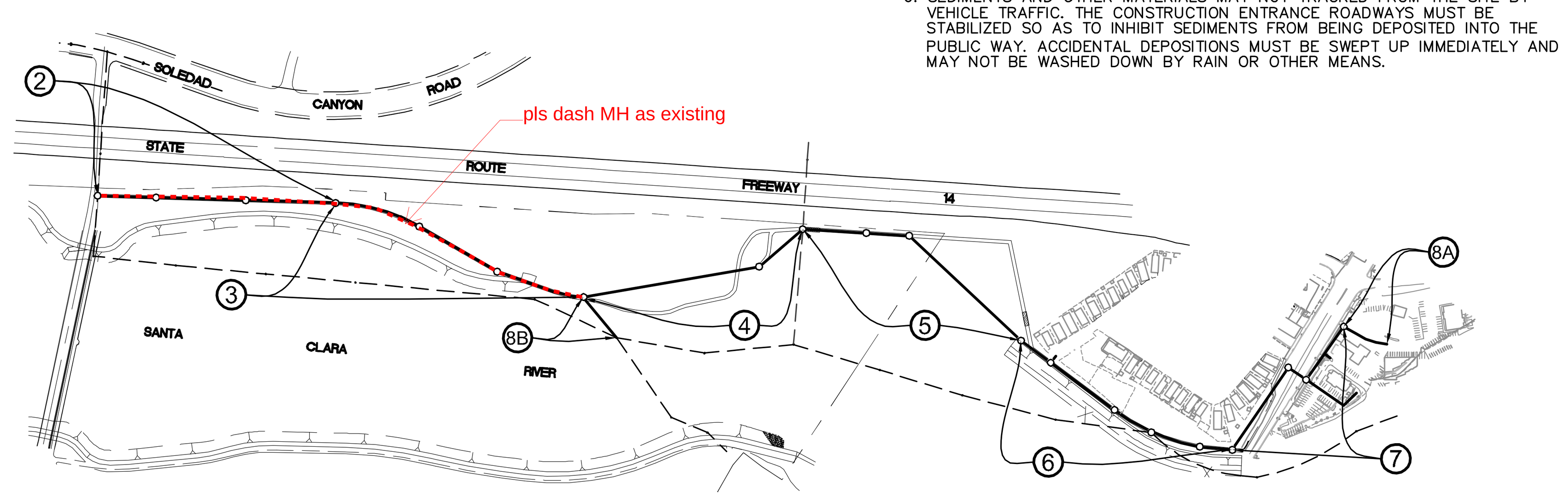
Site Plans

BENCHMARK: L 1668
DESCRIPTION: CS MON IN WELL 250MM DN @ PI 600MM EAST OF CENTERLINE
LOCATION: SAND CANYON ROAD AND 161M NORTH OF LIVE OAK SPRINGS CANYON ROAD 8.2M NORTHEAST OF POWER POLE #1155006E MKD (PI 24)
ELEVATION: 1586.011 DATUM: NAVD 88 (1995 ADJ.)

STORMWATER POLLUTION PLAN NOTES

A. NOTES

1. ERODED SEDIMENTS AND OTHER POLLUTANTS MUST BE RETAINED ON SITE AND MAY NOT BE TRANSPORTED FROM THE SITE VIA SHEETFLOW, SWALES, AREA DRAINS, NATURAL DRAINAGE COURSES OR WIND.
2. STOCKPILES OF EARTH AND OTHER CONSTRUCTION RELATED MATERIALS MUST BE PROTECTED FROM BEING TRANSPORTED FROM THE SITE BY THE FORCES OF WIND OR WATER.
3. FUELS, OILS, SOLVENTS, AND OTHER TOXIC MATERIALS MUST BE STORED IN ACCORDANCE WITH THEIR LISTING AND MAY NOT CONTAMINATE THE SOIL AND SURFACE WATERS. ALL APPROVED STORAGE CONTAINERS ARE TO BE PROTECTED FROM THE WEATHER. SPILLS MUST BE CLEANED UP IMMEDIATELY AND DISPOSED OF IN A PROPER MANNER. SPILLS MAY NOT BE WASHED INTO THE DRAINAGE SYSTEM.
4. EXCESS OR WASTE CONCRETE MAY NOT BE WASHED INTO THE PUBLIC WAY OR ANY OTHER DRAINAGE SYSTEM. PROVISIONS SHALL BE MADE TO RETAIN CONCRETE WASTES ON SITE UNTIL THEY CAN BE DISPOSED OF AS SOLID WASTE.
5. TRASH AND CONSTRUCTION RELATED SOLID WASTES MUST BE DEPOSITED INTO A COVERED RECEPTACLE TO PREVENT CONTAMINATION OF RAINWATER AND DISPERSAL BY WIND.
6. SEDIMENTS AND OTHER MATERIALS MAY NOT TRACKED FROM THE SITE BY VEHICLE TRAFFIC. THE CONSTRUCTION ENTRANCE ROADWAYS MUST BE STABILIZED SO AS TO INHIBIT SEDIMENTS FROM BEING DEPOSITED INTO THE PUBLIC WAY. ACCIDENTAL DEPOSITIONS MUST BE SWEPT UP IMMEDIATELY AND MAY NOT BE WASHED DOWN BY RAIN OR OTHER MEANS.
7. ANY SLOPES WITH DISTURBED SOILS DENUDED OF VEGETATION MUST BE STABILIZED SO AS TO INHIBIT EROSION BY WIND AND WATER.
8. THE FOLLOWING BMPs AS OUTLINED IN, BUT NOT LIMITED TO, THE "BEST MANAGEMENT PRACTICE HANDBOOK, CALIFORNIA STORMWATER QUALITY TASK FORCE, SACRAMENTO, CALIFORNIA 1993," OR THE LATEST REVISED EDITION, MAY APPLY DURING THE CONSTRUCTION OF THIS PROJECT (ADDITIONAL MEASURES MAY BE REQUIRED IF DEEMED APPROPRIATE BY COUNTY INSPECTORS):



INDEX MAP

SCALE: 1" = 500' INDEX 1334 & 1335
P.C. 06-11 TR. NO.S 69164
THOMAS GUIDE PAGE: 4551-A3 & B3 (2003)

NOTES: ○ CIRCLED NUMBERS INDICATE PAGE NUMBERS. ALL MAINLINE SANITARY SEWERS ARE WITHIN THE SANITARY SEWER EASEMENT

CITY OF SANTA CLARITA
APPROVED FOR CONSTRUCTION

ROBERT G. NEWMAN DIRECTOR OF PUBLIC WORKS ____ DATE

PLAN CHECKER ____ DATE

NO.	REVISION	REVISED BY (REGISTERED ENGINEER'S SIGNATURE)	APPROVED BY LA COUNTY SMD APPROVAL	DATE	CITY APPROVAL	DATE

BMP NOTES:

CA001 – DEWATERING OPERATIONS
CA002 – PAVING OPERATIONS
CA003 – STRUCTURE CONSTRUCTION AND PAINTING
CA010 – MATERIAL DELIVERY AND STORAGE
CA011 – MATERIAL USE
CA012 – SPILL PREVENTION CONTROL
CA020 – SOLID WASTE MANAGEMENT
CA021 – HAZARDOUS WASTE MANAGEMENT
CA022 – CONTAMINATED SOIL MANAGEMENT
CA023 – CONCRETE WASTE MANAGEMENT
CA030 – VEHICLE AND EQUIPMENT CLEANING
CA031 – VEHICLE AND EQUIPMENT FUELING
CA032 – VEHICLE AND EQUIPMENT MAINTENANCE
CA040 – EMPLOYEE/SUBCONTRACTOR TRAINING
ESC01 – SCHEDULING
ESC02 – PRESERVATION OF EXISTING VEGETATION
ESC21 – DUST CONTROLS
ESC22 – TEMPORARY STREAM CROSSING
ESC23 – CONSTRUCTION ROAD STABILIZATION
ESC24 – STABILIZED CONSTRUCTION ENTRANCE
ESC40 – OUTLET PROTECTION
ESC41 – CHECK DAMS
ESC51 – STRAW BALE BARRIER
ESC52 – SAND BAG BARRIER
ESC53 – BRUSH OR ROCK FILTER
ESC54 – STORM DRAIN INLET PROTECTION

NOTES:
"PRIOR TO ACCEPTANCE OF ANY SANITARY SEWER LINE BY THE CITY OF SANTA CLARITA AN INSPECTION OF SAID LINE BY VIDEO SHALL BE REQUIRED AT NO COST TO THE CITY. ALL NEW MAINLINE SEWERS SHALL BE VIDEO INSPECTED. THE CCTV INSPECTION SHALL BE COMPLETED BY A CERTIFIED NATIONAL ASSOCIATION OF SEWER SERVICE COMPANY (NASSCO), PIPELINE ASSESSMENT AND CERTIFICATION PROGRAM (PACP) TRAINED OPERATOR(S) USING ESTABLISHED PACP CODING AND OBSERVATIONS. THE RESULTS OF THE VIDEO INSPECTION SHALL BE RECORDED IN DVD FORMAT AND A COPY SHALL BE PROVIDED TO THE CITY AND LOS ANGELES COUNTY DEPARTMENT OF PUBLIC WORKS SEWER MAINTENANCE DIVISION, CONDITION ASSESSMENT UNIT, FOR REVIEW AND APPROVAL. ANY NOTED DEFICIENCIES SHALL BE CORRECTED, THEN FOLLOWED BY A POST CORRECTION VIDEO TO BE RESUBMITTED FOR REVIEW AND APPROVAL. THE DEVELOPER OF THE PROJECT SHALL NOTIFY THE CITY OF SANTA CLARITA IN WRITING AT LEAST 24 HOURS IN ADVANCE OF THE SCHEDULED DATE OF THE VIDEO INSPECTION.

BACKWATER VALVE REQUIRED FOR LOTS MARKED WITH BWV

COUNTY OF LOS ANGELES
DEPARTMENT OF PUBLIC WORKS
CONSOLIDATED SEWER MAINTENANCE DISTRICT
REVIEWED FOR MAINTENANCE

REVIEWED BY ____ DATE ____

NOTICE TO CONTRACTOR:
MAINTAIN SEWER FLOW AT ALL TIMES DURING CONSTRUCTION.

EASEMENT NOTE:
A MINIMUM 10' SEWER EASEMENT TO BE DEDICATED TO THE CITY OF SANTA CLARITA OVER ALL PRIVATE DRIVES PER TRACT MAP 62322

PRIVATE CONTRACT SEWER GENERAL NOTES

THE FOLLOWING GENERAL NOTES ARE TO BE INCLUDED ON PAGE 1 OF ALL PRIVATE CONTRACT SEWER PLANS:

1. A SEWER CONSTRUCTION PERMIT SHALL BE OBTAINED AND A FEE PAID FOR CONSTRUCTION INSPECTION AND RECORD PLANS TO THE CITY OF SANTA CLARITA, 23920 VALENCIA BLVD. SUITE 300, AT LEAST 72 HOURS PRIOR TO STARTING WORK UNDER THIS PERMIT. COPIES OF ALL OTHER REQUIRED PERMITS, SUCH AS ROAD EXCAVATION, CALTRANS, ECT. MUST BE FILED WITH THE PERMIT APPLICATIONS.
2. THE CONTRACTOR SHALL NOTIFY THE PUBLIC WORKS INSPECTOR BY TELEPHONE AT (661) 255-4942 AT LEAST 24 HOURS BEFORE START OF WORK.
3. THE CONTRACTOR SHALL NOTIFY UNDERGROUND SERVICE ALERT (USA) AT (800) 227-2600 AT LEAST 14 DAYS PRIOR TO START OF WORK.
4. PRIOR TO ISSUANCE OF THE REQUIRED SEWER CONSTRUCITON PERMIT, THE CONTRACTOR SHALL OBTAIN AND FILE WITH THE CITY OF SANTA CLARITA, COPIES OF A PERMIT TO EXCAVATE IN CITY STREETS AND A PERMIT FOR EXCAVATION AND TRENCHES FROM THE STATE OF CALIFORNIA DIVISION OF INDUSTRIAL SAFETY, AND A CERTIFICATE OF WORKER'S COMPENSATION INSURANCE WITH THE CITY OF SANTA CLARITA NAMED AS THE CERTIFICATE HOLDER TO BE NOTIFIED 30 DAYS PRIOR TO CANCELLATION OF POLICY.
5. IF WORK IS DONE ON A STATE HIGHWAY, A PERMIT MUST BE OBTAINED FROM THE STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION, 120 SOUTH SPRING STREET, LOS ANGELES, CALIFORNIA.
6. APPROVAL OF THIS PLAN BY THE CITY OF SANTA CLARITA DOES NOT CONSTITUTE A REPRESENTATION AS TO ACCURACY OF THE LOCATION OF OR THE EXISTENCE OR NON-EXISTENCE OF ANY UNDERGROUND UTILITY PIPE OR STRUCTURE WITHIN THE LIMITS OF THIS PROJECT. THIS NOTE APPLIES TO ALL PAGES.
7. THE EXISTENCE AND LOCATION OF ANY UNDERGROUND UTILITY PIPES OR STRUCTURES SHOWN ON THESE PLANS ARE OBTAINED BY A SEARCH OF THE AVAILABLE RECORDS.
8. ALL WORK SHALL BE IN ACCORDANCE WITH THE LATEST APPROVED EDITION OF THE "STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION", INCLUDING SUPPLEMENTS AND THE LATEST "SPECIAL PROVISIONS FOR THE CONSTRUCTION OF SANITARY SEWER" AND SHALL BE PROSECUTED ONLY IN THE PRESENCE OF THE CITY OF SANTA CLARITA.
9. THE CONTRACTOR'S ATTENTION IS DIRECTED TO SECTION 7-10.4.1 OF THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTIO IN REGARD TO SAFETY ORDERS AND SHALL CONFORM TO THE "MINIMUM PUBLIC SAFETY REQUIREMENT FOR OPEN EXCAVATION" AS SHOWN ON LOS ANGELES DEPARTMENT OF PUBLIC WORKS' STANDARD PLAN 6008-0.
10. ELEVATIONS ARE IN FEET ABOVE U.S.C. & G.S. SEA LEVEL DATUM OF 1929.
11. NO REVISIONS SHALL BE MADE IN THESE PLANS WITHOUT THE APPROVAL OF THE CITY ENGINEER.
12. NO REPRESENTATIVE OF THE CITY OF SANTA CLARITA WILL SURVEY OR LAY OUT ANY PORTION OF THE WORK.
13. GRADES TO WHICH THIS IMPROVEMENT IS TO BE CONSTRUCTED ARE SHOWN ON PLANS AND PROFILES. GRADE POINTS FOR TOP OF CURBS, CENTERLINE OF STREETS, OR CENTERLINE OF ALLEYS, ARE SHOWN BY CIRCLES ON PROFILES AT ALL POINTS BETWEEN SAID DESIGNED POINTS. THE GRADE SHALL BE ESTABLISHED SO AS TO CONFORM TO A STRAIGHT LINE DRAWN BETWEEN SAID DESIGN POINTS.
14. THE PRIVATE ENGINEER SHALL FURNISH THE CITY OF SANTA CLARITA WITH GRADE SHEETS AND STATIONING FOR ALL HOUSE LATERALS AND "Y" OR "T" BRANCHES AND SHALL PROVIDE STAKES FOR THEM AT THEIR PROPER LOCATIONS WITH STATIONING PLAINLY MARKED. ALL HOUSE LATERALS SHALL BE CONSTRUCTED IN A STRAIGHT ALIGNMENT AT RIGHT ANGLES FROM THE MAIN LINE SEWER EXCEPT AS SHOWN ON THE PLANS. HOUSE LATERALS FROM CHIMNEYS SHALL NOT HAVE AN ANGLE OF LESS THAN 45 DEGREES WITH THE M.L. SEWER. ANY CHANGE IN ALIGNMENT SHALL BE REQUESTED IN WRITING BY THE PRIVATE ENGINEER.
15. THE PRIVATE ENGINEER SHALL FURNISH THE HOUSE LATERAL DEPTH AT THE PROPERTY LINE BELOW THE TOP OF CURB ELEVATION FOR EACH HOUSE LATERAL ON THE GRADE SHEET.

COUNTY SANITATION DISTRICTS (CSD) NOTES:

1. NO CONNECTION FOR THE DISPOSAL OF INDUSTRIAL WASTES SHALL BE MADE TO SEWERS SHOWN ON THESE DRAWINGS UNTIL A PERMIT FOR INDUSTRIAL WASTEWATER DISCHARGE HAS BEEN ISSUED BY CSD FOR SAID CONNECTION.
2. BEFORE BREAKING INTO A CSD SEWER OR MANHOLE, AND PRIOR TO FINAL ACCEPTANCE OF THE PROJECT, A CSD INSPECTOR SHALL BE NOTIFIED BY TELEPHONE AT (661) 729-5320 OR (562) 908-4288, EXT. 6318 SO THAT REQUIRED INSPECTION CAN BE MADE.

CONSTRUCTION NOTES

1. THE CONTRACTOR SHALL PROVIDE SURVEY STAKES ON THE PROPERTY LINE OR PROPERTY LINES PRODUCED AT RIGHT ANGLES TO THE SEWER LINE AT THE CENTERLINE OF EACH MANHOLE.
2. VITRIFIED CLAY PIPE JOINTS SHALL BE TYPE "D" OR "G" IN ACCORDANCE WITH "STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION" SECTION 208-2.
3. IF A POWERPOLE IS WITHIN THREE FEET OF THE SEWER, THE SEWER SHALL BE ENCASED PER LACDPW STANDARD PLAN 2023-1, CASE II, TWO FEET ON EACH SIDE FROM THE POINT OF INTERFERENCE.
4. ALL JOINTS BETWEEN CAST IRON PIPE AND VITRIFIED CLAY SHALL BE MADE WITH A RUBBER SLEEVE JOINT, TYPE "D" (WITH BUSHING IF NECESSARY) PER "STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION" SECTION 208-2.
5. HOUSE LATERALS TO BE CONSTRUCTED WITH INVERTS AT THE PROPERTY LINE 6 FEET BELOW CURB GRADE EXCEPT AS NOTED.
6. ALL WYES AND/OR HOUSE LATERALS ARE TO BE LOCATED AT LEAST 5' APART AND WHEN POSSIBLE NOT CLOSER THAN 5' TO ANY MANHOLE PER LOS ANGELES COUNTY'S STANDARD.
7. WYE OR TEE BRANCHES MAY BE USED FOR CONNECTIONS TO THE MAINLINE SEWERS EXCEPT AS NOTED.
8. IF DURING THE COURSE OF CONSTRUCTION, IT IS DETERMINED THAT THERE IS LESS THAN FOUR FEET OF COVER OVER THE TOP OF A MAINLINE OR HOUSE LATERAL V.C.P. SEWER WHICH IS NOT INDICATED ON THE PLANS, THE PIPES SHALL BE ENCASED PER LOS ANGELES COUNTY STANDARD PLAN 2023-1, CASE II, UNLESS OTHERWISE APPROVED BY THE CITY ENGINEER.
9. REFER TO THE STANDARD DRAWING 2100-0, "DESIGN REQUIREMENTS FOR SANITARY SEWERES IN THE VICINITY OF PRESSURE WATER MAINS", AND COMPLY WITH THE REQUIREMENTS.
10. ALL STRUCTURES SHALL BE EITHER BRICK SEWER MANHOLES PER LOS ANGELES COUNTY APWA 203-0, PRECAST CONCRETE SEWER MANHOLES PER APWA 200-2, OR REINFORCED PRECAST CONCRETE MANHOLE PER LACDPW STANDARD PLAN 2003-1, EXCEPT AS NOTED.
11. RESURFACE ALL TRENCHES WITHIN PAVED AREAS TO MEET THE CITY OF SANTA CLARITA, LOS ANGELES COUNTY PUBLIC WORKS OR CALIFORNIA STATE HIGHWAY REQUIREMENTS IN ACCORDANCE WITH THE PERMITS.
12. FULL COMPLIANCE WITH SECTION 306-1.3.4. OF THE "STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION" WILL BE REQUIRED FOR BACKFILL IN STREET, CERTIFICATION OF BACKFILL COMPACTION, AND SAND EQUIVALENTS BY A QUALIFIED CIVIL ENGINEER. THIS SHALL BE PROVIDED BY THE PERMITEE PRIOR TO THE ISSUANCE OF A CERTIFICATE OF PARTIAL ACCEPTANCE.
13. ALL BACKFILL AND FILLS OUTSIDE OF THE STREET RIGHT OF WAY SHALL BE COMPACTED TO 90% OF THE MAXIMUM DENSITY AS DETERMINED BY ASTM SOIL COMPACTION TEST D 1557-78 METHOD "D" UNLESS OTHERWISE SPECIFIED. THIS SHALL BE CERTIFIED BY A QUALIFIED CIVIL ENGINEER. THIS CERTIFICATION SHALL BE SUBMITTED TO THE CITY OF SANTA CLARITA PRIOR TO THE ACCEPTANCE OF THE WORK BY THE CITY.
14. MANHOLE TOPS IN UNIMPROVED RIGHT OF WAYS TO BE SIX INCHES ABOVE FINISHED GRADE.
15. SEWERS TO BE TESTED FOR LEAKAGE PER SECTION 306-1.4.4 OF THE "STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION".
16. AN APPROVED BACKWATER VALVE IS REQUIRED WHERE FINISHED FLOOR IS LOWER IN ELEVATION THAN THE TOP OF THE NEXT UPSTREAM MANHOLE.
17. DIRECT CONNECTION OF HOUSE LATERAL TO A MANHOLE IS PERMISSIBLE FOR TERMINAL MANHOLES WITH THE USE OF A 4 X 8 STUB.

PROFILE, ALIGNMENT, AND GRADE OF
SANITARY SEWERS
TO BE CONSTRUCTED IN
THE CITY OF SANTA CLARITA
SAND CANYON PC NO. XXX-XX
4 SHEETS: 8 PAGES
COUNTY OF LOS ANGELES CALIFORNIA

INDEX 1334 & 1335

SCALE: VERTICAL 1"=8'
HORIZONTAL 1"=40'

TRACT NO. 4ele PC XXX-XX ①

THE FOLLOWING LATEST REVISED STANDARD PLANS ON FILE IN THE OFFICE OF THE DEPARTMENT OF PUBLIC WORKS SHALL APPLY IN THE CONSTRUCTION OF THIS PROJECT

LEGEND	2000-0
MINIMUM PUBLIC SAFETY REQUIREMENTS	6008-1
BRICK MANHOLE	APWA 203-0
REINFORCED PRECAST CONCRETE MANHOLE	2003-2
STANDARD MANHOLE STEP	2015-1
BEDDING FOR SEWER PIPE	2021-1
CRADLING AND ENCASEMENT	2023-1
WYE OR TEE SUPPORT	2024-1
ALLOWABLE TRENCH WIDTH	2027-1
LOCKING MANHOLE FRAME AND COVER	APWA 210-2
NON-REINFORCED PRECAST CONCRETE MANHOLE	APWA 200-2
SANITARY SEWER IN THE VICINITY OF PRESSURE WATER MAINS	2100-1

SANTA CLARITA VALLEY SANITATION DISTRICT
OF LOS ANGELES COUNTY, CALIFORNIA
GRACE ROBINSON CHAN-CHIEF ENGINEER AND GENERAL MANAGER

APPROVED BY ____ OFFICE ENGINEER DATE: ____

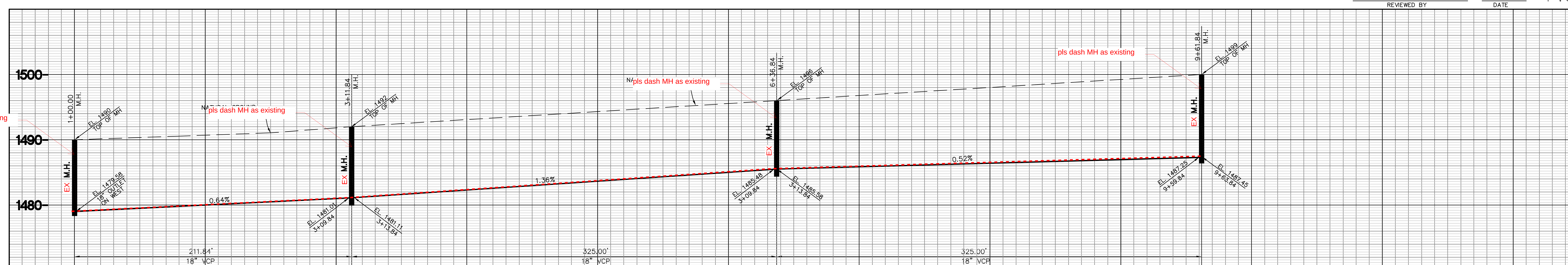
PRIVATE ENGINEERS NOTICE TO CONTRACTORS:

THE EXISTENCE AND LOCATION OF ANY UNDERGROUND UTILITY PIPES OR STRUCTURES SHOWN ON THESE PLANS IS REQUIRED BY A SEARCH OF AVAILABLE RECORDS TO THE BEST OF OUR KNOWLEDGE. THERE ARE NO EXISTING UTILITIES EXCEPT AS SHOWN ON THIS MAP. THE CONTRACTOR IS REQUIRED TO TAKE PRECAUTIONARY MEASURES TO PROTECT THE UTILITY LINES SHOWN AND ANY OTHER LINES NOT OF RECORD OR NOT SHOWN ON THIS DRAWING. PRIOR TO EXCAVATION THE CONTRACTOR SHALL CALL TOLL FREE 1-800-422-4133 TO VERIFY THE UNDERGROUND LOCATION OF GAS AND TELEPHONE LINES. THE CONTRACTOR SHALL ALSO CALL MR. RAY CUMMINGS OF GENERAL TELEPHONE COMPANY AT 1-805-948 4871 SO THAT THEY CAN MARK THE LOCATION OF UNDERGROUND TELEPHONE LINES.

PROJECT ENGINEER RCE NO 51929 3/26/14 DATE

REVIEWED BY ____ DATE ____

P.C. XX-XX PAGE 2

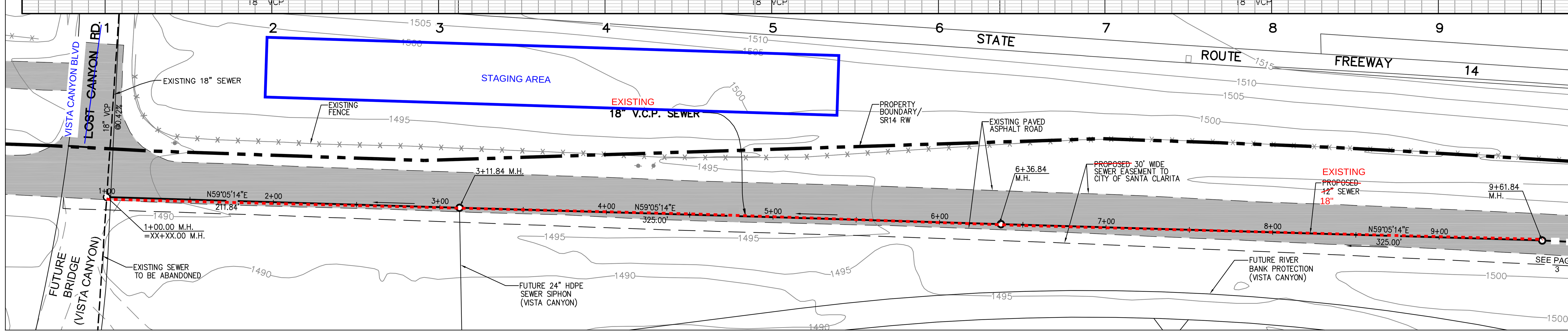


NO. L.A. Co. CHARGES FOR CONNECTIONS

SEE COUNTY SANITATION DISTRICTS FOR SPECIAL CONNECTION CHARGES

TEL (562) 908-4288 EX. 2727

DOUBLE SCALE



PLAN
SCALE: 1" = 40'
25 0 50 100

SANITARY SEWER PLANS IN
SAND CANYON PC NO. XX-XX

REGISTERED PROFESSIONAL ENGINEER CRAIG M. WHITTAKER NO. 51929 EXP 6-30-16 CIVIL STATE OF CALIFORNIA

PROJECT ENGINEER 3/26/14 DATE

CITY OF SANTA CLARITA

ALLIANCE LAND PLANNING & ENGINEERING INC.

2248 FARADAY AVE. CARLSBAD, CA 92008 TEL: (760) 431-9896 FAX: (760) 431-8802

27451 TOURNEY ROAD SUITE 140 VALENCIA, CA 91355 TEL: (661) 799-2760

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P.C. xx–xx PAGE 3

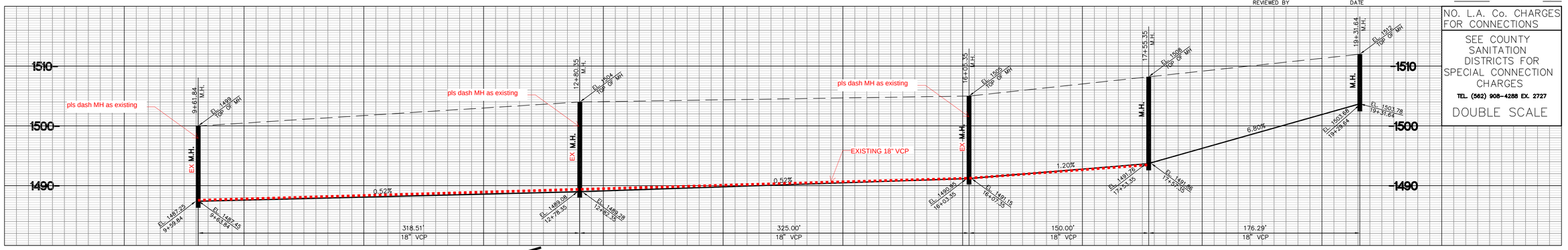
REVIEWED BY | DATE

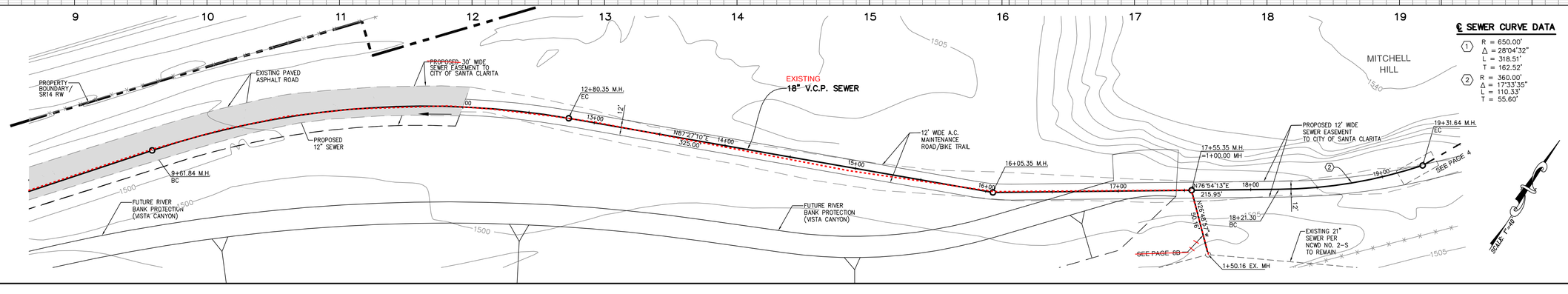
NO. L.A. Co. CHARGES FOR CONNECTIONS

SEE COUNTY SANITATION DISTRICTS FOR SPECIAL CONNECTION CHARGES

TEL. (562) 908-4288 EX. 2727

DOUBLE SCALE





℄ SEWER CURVE DATA

① R = 650.00'
Δ = 28°04'32"
L = 318.51'
T = 162.52'

② R = 360.00'
Δ = 17°33'35"
L = 110.33'
T = 55.60'

P.C. xx–xx PAGE 4

REVIEWED BY | DATE

NO. L.A. Co. CHARGES FOR CONNECTIONS

SEE COUNTY SANITATION DISTRICTS FOR SPECIAL CONNECTION CHARGES

TEL. (562) 908-4288 EX. 2727

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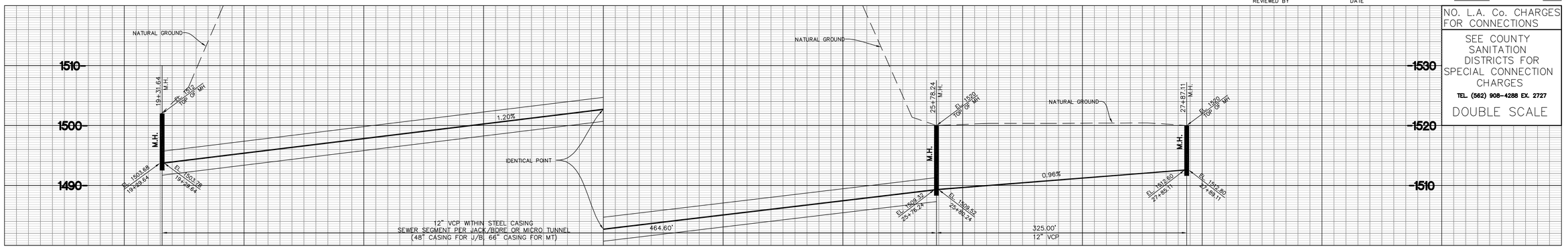

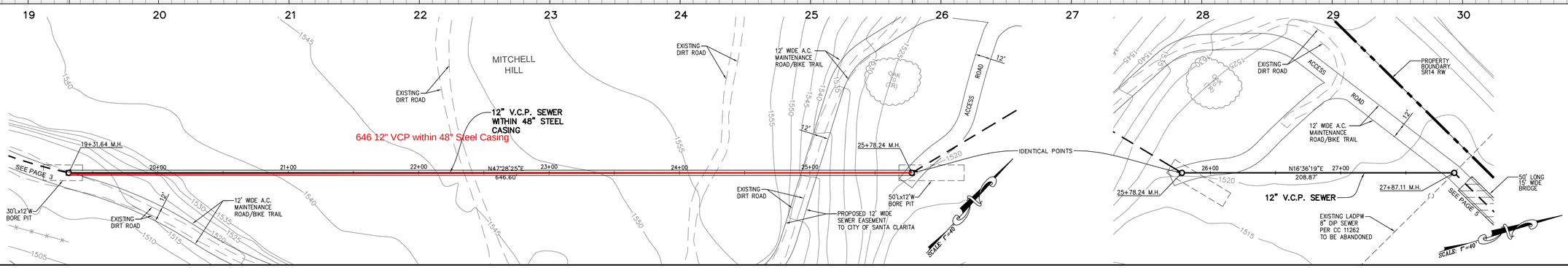

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P.C. XX–XX PAGE 5

REVIEWED BY _____ DATE _____

NO. L.A. Co. CHARGES FOR CONNECTIONS

SEE COUNTY SANITATION DISTRICTS FOR SPECIAL CONNECTION CHARGES

TEL. (562) 908-4288 EX. 2727

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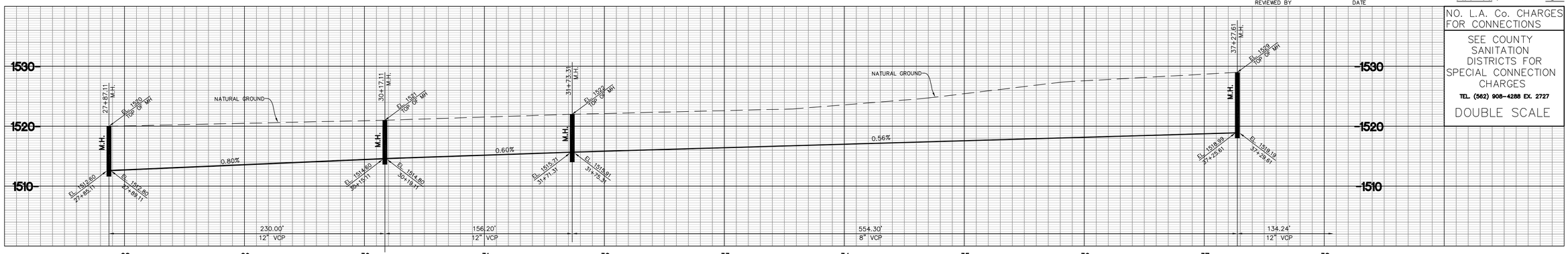
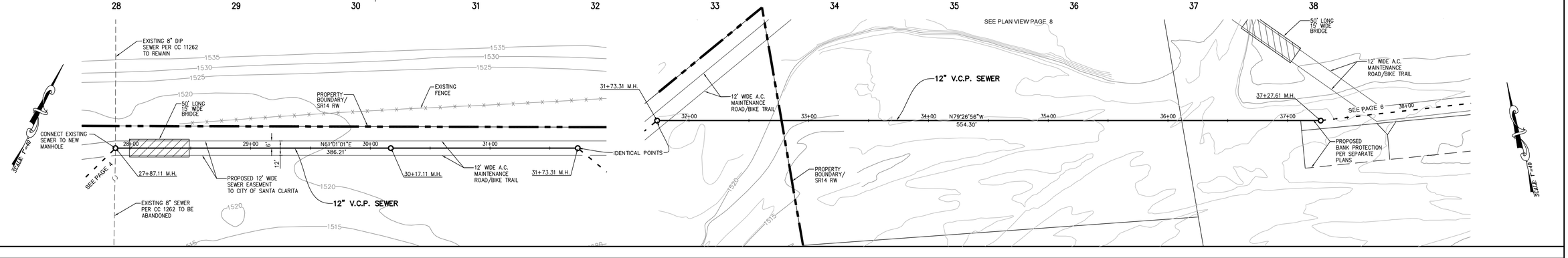




P.C. XX–XX PAGE 6

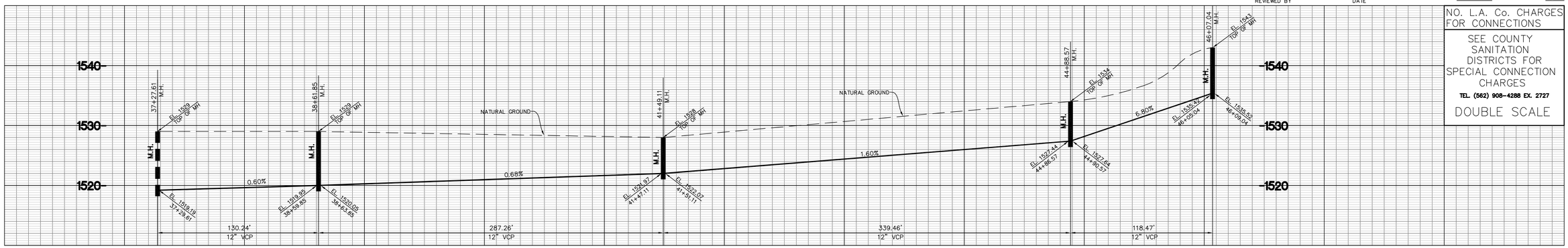
REVIEWED BY _____ DATE _____

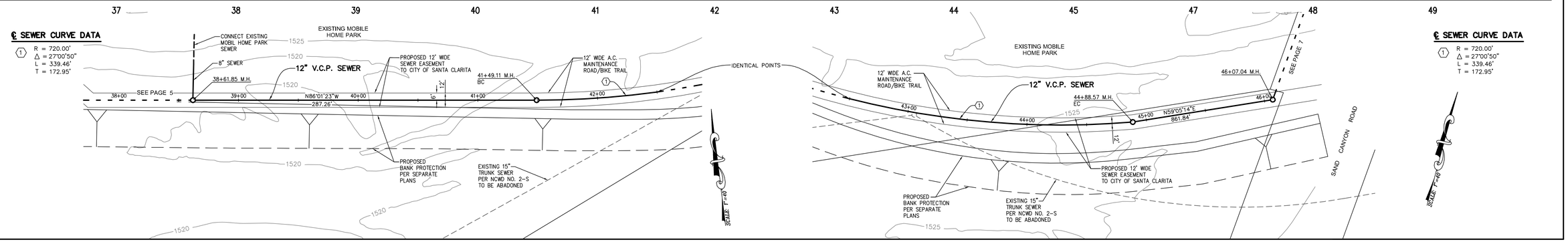
NO. L.A. Co. CHARGES FOR CONNECTIONS

SEE COUNTY SANITATION DISTRICTS FOR SPECIAL CONNECTION CHARGES

TEL. (562) 908-4288 EX. 2727

DOUBLE SCALE





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P.C. XX–XX PAGE 7

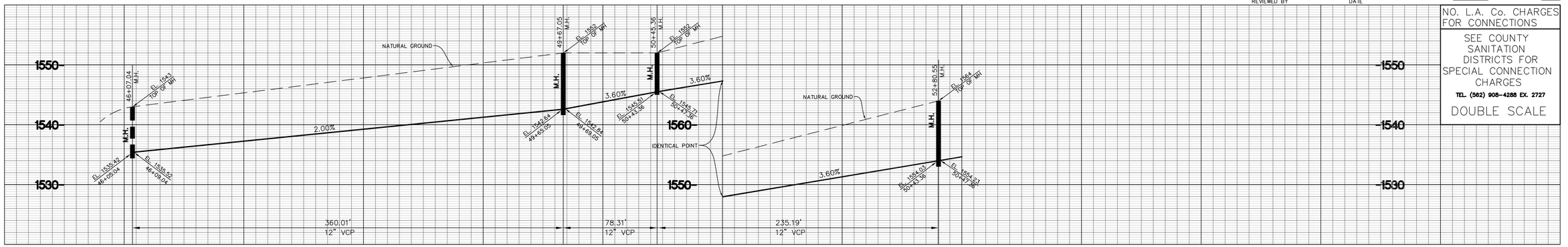
REVIEWED BY _____ DATE _____

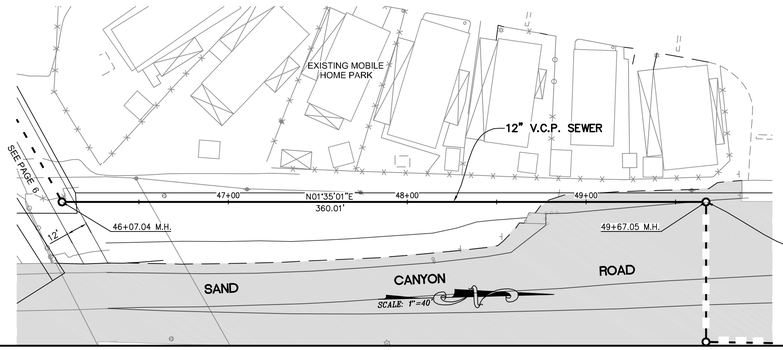
NO. L.A. Co. CHARGES FOR CONNECTIONS

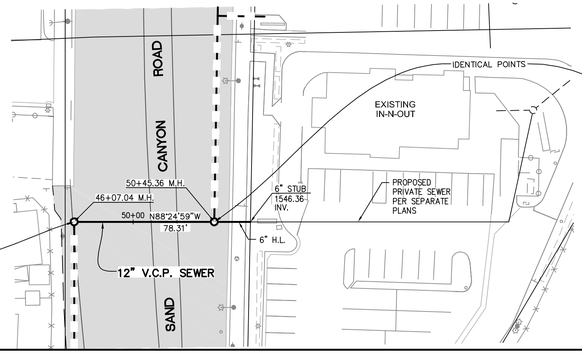
SEE COUNTY SANITATION DISTRICTS FOR SPECIAL CONNECTION CHARGES

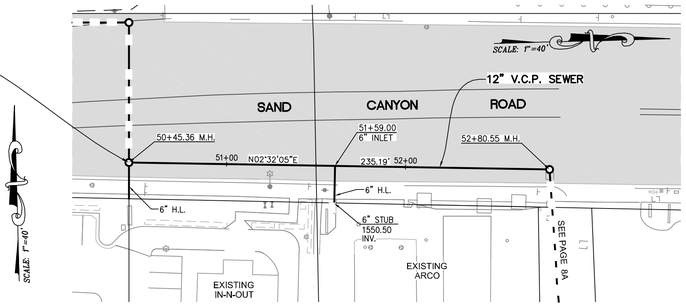
TEL. (562) 908-4288 EX. 2727

DOUBLE SCALE









P.C. XX–XX PAGE 8

REVIEWED BY _____ DATE _____

NO. L.A. Co. CHARGES FOR CONNECTIONS

SEE COUNTY SANITATION DISTRICTS FOR SPECIAL CONNECTION CHARGES

TEL. (562) 908-4288 EX. 2727

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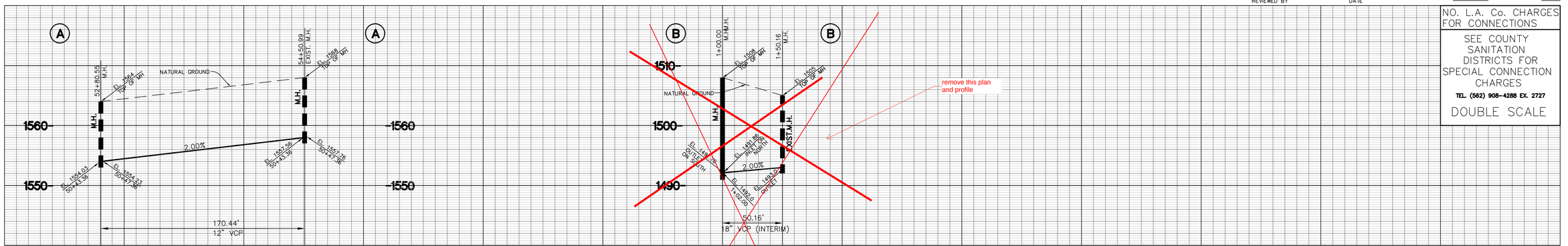

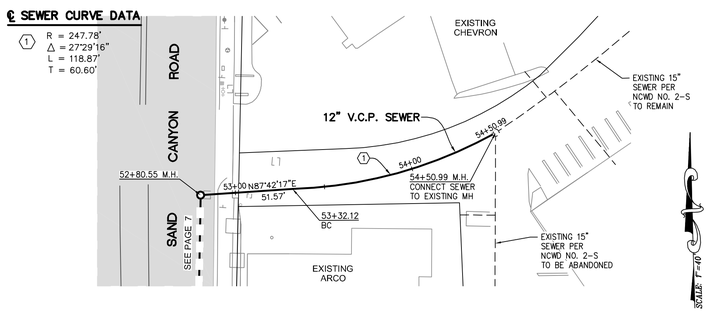

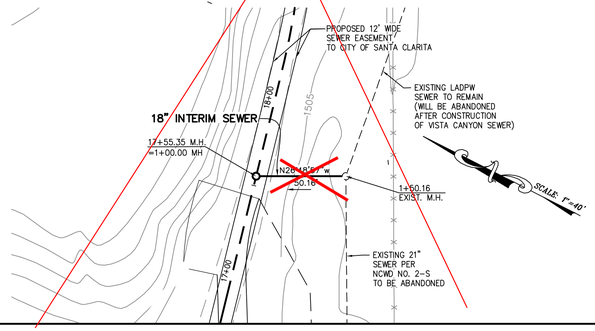

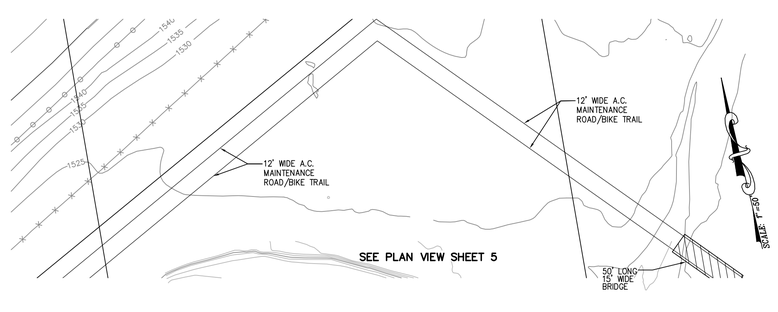

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Appendix B

Regulatory Setting

Regulatory Setting

The following is a brief summary of the regulatory context under which biological resources are managed at the federal, state, and local levels. A number of federal and state statutes provide a regulatory structure that guides the protection of biological resources. Agencies with the responsibility for protection of biological resources within the project site include:

- U.S. Army Corps of Engineers (wetlands and other waters of the United States);
- U.S. Fish and Wildlife Service (federally listed species and migratory birds);
- National Marine Fisheries Service (marine animals and anadromous fishes);
- Los Angeles Regional Water Quality Control Board (waters of the State);
- California Department Fish and Wildlife (riparian areas, streambeds, and lakes; state-listed species; nesting birds, marine resources); and
- City of Santa Clarita

United States Army Corps of Engineers

The United States Army Corps of Engineers (USACE) is responsible for administering several federal programs related to ensuring the quality and navigability of the nation's waters.

Clean Water Act Section 404

Congress enacted the Clean Water Act (CWA) "to restore and maintain the chemical, physical, and biological integrity of the Nation's waters." Section 404 of the CWA authorizes the Secretary of the Army, acting through the USACE, to issue permits regulating the discharge of dredged or fill materials into the "navigable waters at specified disposal sites."

Section 502 of the CWA further defines "navigable waters" as "waters of the United States, including the territorial seas." "Waters of the United States" are broadly defined at 33 CFR Part 328.3 to include navigable, tidal, and interstate waters and certain impoundments, tributaries, and wetlands. The agencies' most recent regulatory definition of the term was promulgated in January 2023, following failed attempts in prior years that had been frustrated by legal challenges. However, in May 2023 the U.S. Supreme Court issued its ruling in *Sackett v. Environmental Protection Agency*, which invalidated portions of the updated regulations. To address this ruling, in September 2023 the agencies issued a "conforming rule" (88 FR 61964-61969) modifying their definition of "waters of the United States" to comport with the Court's ruling. This definition is described in detail below.

Waters of the U.S.

Current USACE and USEPA regulations, reflecting of the January 2023 definition as modified by the September 2023 Conforming Rule, define "waters of the United States" as follows (33 CFR 328.3; see also 88 FR 61964-61969):

1. Waters which are:
   (i) (Currently used, or were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters which are subject to the ebb and flow of the tide;

(ii) The territorial seas; or

(iii) Interstate waters;

2. Impoundments of waters otherwise defined as waters of the United States under this definition, other than impoundments of waters identified under paragraph (a)(5) of this section;
3. Tributaries of waters identified in paragraph (a)(1) or (2) of this section that are relatively permanent, standing or continuously flowing bodies of water;
4. Wetlands adjacent to the following waters:

   (iv) Waters identified in paragraph (a)(1) of this section; or

   (v) Relatively permanent, standing or continuously flowing bodies of water identified in paragraph (a)(2) or (a)(3) of this section and with a continuous surface connection to those waters;

5. Intrastate lakes and ponds, not identified in paragraphs (a)(1) through (4) of this section that are relatively permanent, standing or continuously flowing bodies of water with a continuous surface connection to the waters identified in paragraph (a)(1) or (a)(3) of this section.

The definition specifies that the following features are not “waters of the United States” even where they otherwise meet the terms of provisions (2) through (5) above:

1. Waste treatment systems, including treatment ponds or lagoons, designed to meet the requirements of the Clean Water Act;
2. Prior converted cropland designated by the Secretary of Agriculture. The exclusion would cease upon a change of use, which means that the area is no longer available for the production of agricultural commodities. Notwithstanding the determination of an area's status as prior converted cropland by any other Federal agency, for the purposes of the Clean Water Act, the final authority regarding Clean Water Act jurisdiction remains with EPA;
3. Ditches (including roadside ditches) excavated wholly in and draining only dry land and that do not carry a relatively permanent flow of water;
4. Artificially irrigated areas that would revert to dry land if the irrigation ceased;
5. Artificial lakes or ponds created by excavating or diking dry land to collect and retain water and which are used exclusively for such purposes as stock watering, irrigation, settling basins, or rice growing;
6. Artificial reflecting or swimming pools or other small ornamental bodies of water created by excavating or diking dry land to retain water for primarily aesthetic reasons;
7. Waterfilled depressions created in dry land incidental to construction activity and pits excavated in dry land for the purpose of obtaining fill, sand, or gravel unless and until the construction or excavation operation is abandoned and the resulting body of water meets the definition of waters of the United States; and
8. Swales and erosional features (e.g., gullies, small washes) characterized by low volume, infrequent, or short duration flow.

The lateral limits of USACE jurisdiction in non-tidal waters is defined by the "ordinary high-water mark" (OHWM) unless adjacent wetlands are present. The OHWM is a line on the shore or edge of a channel established by the fluctuations of water and indicated by physical characteristics such as a clear, natural line impressed upon the bank, shelving, changes in the character of soil, destruction of vegetation, or the presence of debris (33 CFR 328.3(c)(1)). As such, waters are recognized in the

field by the presence of a defined watercourse with appropriate physical and topographic features. If wetlands occur within, or adjacent to, waters of the United States, the lateral limits of USACE jurisdiction extend beyond the OHWM to the outer edge of the wetlands (33 CFR 328.4 (c)). The upstream limit of jurisdiction in the absence of adjacent wetlands is the point beyond which the OHWM is no longer perceptible (33 CFR 328.4; see also 51 FR 41217).

Wetlands

The USACE defines wetlands as "those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions" (33 CFR 328.3(c)(1)). The USACE's delineation procedures identify wetlands in the field based on indicators of three wetland parameters: hydrophytic vegetation, hydric soils, and wetland hydrology. The following is a discussion of each of these parameters.

Hydrophytic Vegetation

Hydrophytic vegetation dominates areas where frequency and duration of inundation or soil saturation exert a controlling influence on the plant species present. Plant species are assigned wetland indicator status according to the probability of their occurrence in wetlands. More than fifty percent of the dominant plant species must have a wetland indicator status to meet the hydrophytic vegetation criterion. The USACE published the National Wetland Plant List (USACE 2020), which separates vascular plants into the following four basic categories based on plant species frequency of occurrence in wetlands:

- **Obligate Wetland (OBL).** Almost always occur in wetlands
- **Facultative Wetland (FACW).** Usually occur in wetlands, but occasionally found in non-wetlands
- **Facultative (FAC).** Occur in wetlands or non-wetlands
- **Facultative Upland (FACU).** Usually occur in non-wetlands, but may occur in wetlands
- **Obligate Upland (UPL).** Almost never occur in wetlands

The USACE considers OBL, FACW and FAC species to be indicators of wetlands. An area is considered to have hydrophytic vegetation when greater than 50 percent of the dominant species in each vegetative stratum (tree, shrub, and herb) fall within these categories. Any species not appearing on the USACE list is assumed to be an upland species, almost never occurring in wetlands. In addition, an area needs to contain at least 5 percent vegetative cover to be considered as a vegetated wetland.

Hydric Soils

Hydric soils are saturated or inundated for a sufficient duration during the growing season to develop anaerobic or reducing conditions that favor the growth and regeneration of hydrophytic vegetation. Field indicators of wetland soils include observations of ponding, inundation, saturation, dark (low chroma) soil colors, bright mottles (concentrations of oxidized minerals such as iron), gleying (indicates reducing conditions by a blue-grey color), or accumulation of organic material. Additional supporting information includes documentation of soil as hydric or reference to wet conditions in the local soils survey, both of which must be verified in the field.

Wetland Hydrology

Wetland hydrology is inundation or soil saturation with a frequency and duration long enough to cause the development of hydric soils and plant communities dominated by hydrophytic vegetation. If direct observation of wetland hydrology is not possible (as in seasonal wetlands), or records of wetland hydrology are not available (such as stream gauges), assessment of wetland hydrology is frequently supported by field indicators, such as water marks, drift lines, sediment deposits, or drainage patterns in wetlands.

Limitations on Jurisdiction based on Sackett v. USEPA Supreme Court

On May 25, 2023, the Supreme Court issued its decision on the petition from the Sacketts, a family in Idaho that was subject to a compliance order from the USEPA for backfilling their lot near Priest Lake, which the USEPA claimed contained federally regulated wetlands. The wetlands in question were adjacent to a ditch that fed a creek that ultimately drained into Priest Lake, a navigable water body. The USEPA asserted that the Sacketts had violated the law by filling the wetlands on their property without a permit. The Court's decision addressed controversy over whether, and under what conditions, the CWA reaches navigable waters' tributaries or adjacent wetlands. The Supreme Court's decision in *Sackett* provides definitive guidance to the agencies in determining the limits of their Clean Water Act authority. Major tenets of the decision have been incorporated into the agencies' current regulations through the September 2023 Conforming Rule.

The Court decided:

- "Adjacent wetlands" are WOTUS only if there is a continuous surface connection between the wetland and a navigable or relatively permanent water body, such that it is difficult to determine the boundary between the wetland and the water body. The opinion notes that "temporary interruptions to surface connection may sometimes occur because of phenomena like low tides or dry spells." The agencies addressed this element by defining the term "adjacent" to mean "having a continuous surface connection" in the Conforming Rule.
- The Significant Nexus Standard, introduced by the Court in prior decisions, is not mentioned in the Clean Water Act and should not be used. The Court determined that the standard applies ecological factors whose use in determining jurisdiction is not supported by the statute. The Conforming Rule removed significant nexus considerations from the definition.

Although jurisdiction over tributaries was not addressed by the Court, the decision stated that "…the [Clean Water Act's] use of "waters" encompasses only those relatively permanent, standing or continuously flowing bodies of water forming geographical features that are described in ordinary parlance as streams, oceans, rivers, and lakes." The Conforming Rule makes clear that only relatively permanent tributaries qualify as "waters of the United States."

Rivers and Harbors Act Section 10

Section 10 of the Rivers and Harbors Act of 1899 requires authorization from the USACE for the construction of any structure in or over any navigable water of the United States. Structures or work outside the limits defined for navigable waters of the United States require a Section 10 permit if the structure or work affects the course, location, or condition of the water body. The law applies to any dredging or disposal of dredged materials, excavation, filling, re-channelization, or any other modification of a navigable water of the United States, and applies to all structures and work. It further includes, without limitation, any wharf, dolphin, weir, boom breakwater, jetty, groin, bank

protection (e.g., riprap, revetment, bulkhead), mooring structures such as pilings, aerial or subaqueous power transmission lines, intake or outfall pipes, permanently moored floating vessel, tunnel, artificial canal, boat ramp, aids to navigation, and any other permanent, or semi-permanent obstacle or obstruction. It is important to note that Section 10 applies only to navigable waters and thus does not apply to work in non-navigable wetlands or tributaries. In some cases, Section 10 authorization is issued by the USACE concurrently with CWA Section 404 authorization, such as when certain Nationwide Permits are used.

Regional Water Quality Control Board

The State Water Resources Control Board (SWRCB) and nine Regional Water Quality Control Boards (RWQCBs) have jurisdiction over "waters of the State," which are defined as any surface water or groundwater, including saline waters, within the boundaries of the state (California Water Code Section 13050[e]). These agencies also have responsibilities for administering portions of the CWA.

Clean Water Act Section 401

Section 401 of the CWA requires an applicant requesting a federal license or permit for an activity that may result in any discharge into navigable waters (such as a Section 404 Permit) to provide state certification that the proposed activity will not violate state and federal water quality standards. In California, CWA Section 401 Water Quality Certification (Section 401 Certification) is issued by the RWQCBs and by the SWRCB for multi-region projects. The process begins when an applicant submits an application to the RWQCB and informs the USACE (or the applicable agency from which a license or permit was requested) that an application has been submitted. The USACE will then determine a "reasonable period of time" for the RWQCB to act on the application; this is typically 60 days for routine projects and longer for complex projects but may not exceed one year. When the period has elapsed, if the RWQCB has not either issued or denied the application for Section 401 Certification, the USACE may determine that Certification has been waived and issue the requested permit. If a Section 401 Certification is issued it may include binding conditions, imposed either through the Certification itself or through the requested federal license or permit.

Porter-Cologne Water Quality Control Act

The Porter-Cologne Water Quality Control Act (Porter-Cologne Act) is the principal law governing water quality regulation in California. It establishes a comprehensive program to protect water quality and the beneficial uses of water. The Porter-Cologne Act applies to surface waters, wetlands, and groundwater and to both point and nonpoint sources of pollution. Pursuant to the Porter-Cologne Act (California Water Code section 13000 et seq.), the policy of the State is as follows:

- The quality of all the waters of the State should be protected;
- All activities and factors affecting the quality of water should be regulated to attain the highest water quality within reason; and
- The State must be prepared to exercise its full power and jurisdiction to protect the quality of water in the State from degradation.

The Porter-Cologne Act established nine RWQCBs (based on watershed boundaries) and the SWRCB, which are charged with implementing its provisions and which have primary responsibility for protecting water quality in California. The SWRCB provides program guidance and oversight,

allocates funds, and reviews RWQCB decisions. In addition, the SWRCB allocates rights to the use of surface water. The RWQCBs have primary responsibility for individual permitting, inspection, and enforcement actions within each of nine hydrologic regions. The SWRCB and RWQCBs have numerous nonpoint source related responsibilities, including monitoring and assessment, planning, financial assistance, and management.

Section 13260 of the Porter-Cologne Act requires any person discharging or proposing to discharge waste that could affect the quality of waters of the State to file a Report of Waste Discharge with the appropriate RWQCB. The RWQCB may then authorize the discharge, subject to conditions, by issuing Waste Discharge Requirements (WDRs). While this requirement was historically applied primarily to outfalls and similar point source discharges, the SWRCB's *State Wetland Definition and Procedures for Discharges of Dredged or Fill Material to Waters of the State*, effective May 2020, make it clear the agency will apply the Porter-Cologne Act's requirements to discharges of dredge and fill material as well. The *Procedures* state they are to be used in issuing CWA Section 401 Certifications and WDRs and largely mirror the existing review requirements for CWA Section 404 Permits and Section 401 Certifications, incorporating most elements of the USEPA's *Section 404(b)(1) Guidelines*. Following issuance of the *Procedures*, the SWRCB produced a consolidated application form for dredge/fill discharges that can be used to obtain a CWA Section 401 Water Quality Certification, WDRs, or both.

Non-Wetland Waters of the State

The SWRCB and RWQCBs have not currently established regulations for field determinations of waters of the State except for wetlands. In many cases, the RWQCBs interpret the limits of waters of the State to be bounded by the OHWM unless isolated conditions or ephemeral waters are present. However, in the absence of statewide guidance, each RWQCB may interpret jurisdictional boundaries within their region, and the SWRCB has encouraged applicants to confirm jurisdictional limits with their RWQCB before submitting applications. As determined by the RWQCB, waters of the State may include riparian areas or other locations outside the OHWM, leading to a larger jurisdictional area over a given water body compared to the USACE.

Wetland Waters of the State

Procedures for defining wetland waters of the State pursuant to the SWRCB's *State Wetland Definition and Procedures for Discharges of Dredged or Fill Material to Waters of the State* went into effect May 28, 2020. The SWRCB defines an area as wetland if, under normal circumstances:

(i) the area has continuous or recurrent saturation of the upper substrate caused by groundwater, or shallow surface water, or both;

(ii) the duration of such saturation is sufficient to cause anaerobic conditions in the upper substrate; and

(iii) the area's vegetation is dominated by hydrophytes or the area lacks vegetation.

The SWRCB's *Implementation Guidance for the Wetland Definition and Procedures for Discharges of Dredge and Fill Material to Waters of the State* (2020) states waters of the U.S. and waters of the State should be delineated using the standard USACE delineation procedures, taking into consideration that the methods should be modified only to allow for the fact that a lack of vegetation does not preclude an area from meeting the definition of a wetland.

United States Fish and Wildlife Service

The United States Fish and Wildlife Service (USFWS) implements several laws protecting the Nation's fish and wildlife resources, including the Endangered Species Act (FESA; 16 United States Code [USC] Sections 153 et seq.), the Migratory Bird Treaty Act (MBTA; 16 USC Sections 703 through 711), and the Bald and Golden Eagle Protection Act (16 USC Section 668).

Endangered Species Act

The USFWS and National Marine Fisheries Service (NMFS) share responsibility for implementing the FESA. Generally, the USFWS implements the FESA for terrestrial and freshwater species, while the NMFS implements the FESA for marine and anadromous species. Projects that would result in "take" of any threatened or endangered animal species, or a threatened or endangered plant species if occurring on federal land, are required to obtain permits from the USFWS or NMFS through either Section 7 (interagency consultation with a federal nexus) or Section 10 (Habitat Conservation Plan) of the FESA, depending on the involvement by the federal government in funding, authorizing, or carrying out the project. The permitting process is used to determine if a project would jeopardize the continued existence of a listed species and what measures would be required to avoid jeopardizing the species. "Take" under federal definition means to harass, harm (which includes habitat modification), pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct. Proposed or candidate species do not have the full protection of the FESA; however, the USFWS and NMFS advise project applicants that they could be elevated to listed status at any time.

Migratory Bird Treaty Act

The MBTA of 1918 implements four international conservation treaties the U.S. entered into with Canada in 1916, Mexico in 1936, Japan in 1972, and Russia in 1976. It is intended to ensure the sustainability of populations of all protected migratory bird species. The law has been amended with the signing of each treaty, as well as when any of the treaties were amended, such as with Mexico in 1976 and Canada in 1995. The MBTA prohibits the take (including killing, capturing, selling, trading, and transport) of protected migratory bird species without prior authorization by the USFWS.

The list of migratory bird species protected by the law, in regulations at 50 CFR Part 10.13, is primarily based on bird families and species included in the four international treaties. A migratory bird species is included on the list if it meets one or more of the following criteria:

1. It occurs in the United States or U.S. territories as the result of natural biological or ecological processes and is currently, or was previously listed as, a species or part of a family protected by one of the four international treaties or their amendments.
2. Revised taxonomy results in it being newly split from a species that was previously on the list, and the new species occurs in the United States or U.S. territories as the result of natural biological or ecological processes.
3. New evidence exists for its natural occurrence in the United States or U.S. territories resulting from natural distributional changes and the species occurs in a protected family.

In 2004, the Migratory Bird Treaty Reform Act limited the scope of the MBTA by stating the MBTA applies only to migratory bird species that are native to the United States or U.S. territories and that a native migratory bird species is one that is present as a result of natural biological or ecological

processes. The Migratory Bird Treaty Reform Act requires the USFWS to publish a list of all nonnative, human-introduced bird species to which the MBTA does not apply, and an updated list was published in 2020. The 2020 update identifies species belonging to biological families referred to in treaties the MBTA implements but are not protected because their presence in the United States or U.S. territories is solely the result of intentional or unintentional human-assisted introductions.

Bald and Golden Eagle Protection Act

The Bald and Golden Eagle Protection Act prohibits anyone, without a permit issued by the USFWS, from "taking" bald or golden eagles, including their parts (including feathers), nests, or eggs. The Act provides criminal penalties for persons who "take, possess, sell, purchase, barter, offer to sell, purchase or barter, transport, export or import, at any time or any manner, any bald eagle … [or any golden eagle], alive or dead, or any part, nest, or egg thereof." The Act defines "take" as "pursue, shoot, shoot at, poison, wound, kill, capture, trap, collect, molest or disturb."

"Disturb" means "to agitate or bother a bald or golden eagle to a degree that causes, or is likely to cause, based on the best scientific information available, 1) injury to an eagle, 2) a decrease in its productivity, by substantially interfering with normal breeding, feeding, or sheltering behavior, or 3) nest abandonment, by substantially interfering with normal breeding, feeding, or sheltering behavior."

In addition to immediate impacts, this definition also covers impacts that result from human-induced alterations initiated around a previously used nest site during a time when eagles are not present, if, upon the eagle's return, such alterations agitate or bother an eagle to a degree that interferes with or interrupts normal breeding, feeding, or sheltering habits, and causes injury, death or nest abandonment.

California Department of Fish and Wildlife

The California Department of Fish and Wildlife (CDFW) derives its authority from the California Fish and Game Code and administers several state laws protecting fish and wildlife resources and the habitats upon which they depend.

California Endangered Species Act

The California Endangered Species Act (CESA) (California Fish and Game Code Section 2050 et. seq.) prohibits take of state listed threatened or endangered. Take under CESA is defined as "hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill" (California Fish and Game Code Section 86). This definition does not prohibit indirect harm by way of habitat modification, except where such harm is the proximate cause of death of a listed species. Where incidental take would occur during construction or other lawful activities, CESA allows the CDFW to issue an Incidental Take Permit upon finding, among other requirements, that impacts to the species have been minimized and fully mitigated. Unlike the federal ESA, CESA's protections extend to candidate species during the period (typically one year) while the California Fish and Game Commission decides whether the species warrants CESA listing.

Native Plant Protection Act

The CDFW also has authority to administer the Native Plant Protection Act (NPPA) (California Fish and Game Code Section 1900 et seq.). The NPPA requires the CDFW to establish criteria for determining if a species, subspecies, or variety of native plant is endangered or rare and prohibits the take of listed plant species. Effective in 2015, CDFW promulgated regulations (14 California Code of Regulations Section 786.9) under the authority of the NPPA, establishing that the CESA's permitting procedures would be applied to plants listed under the NPPA's "Rare." With this change, there is little practical difference for the regulated public between plants listed under CESA and those listed under the NPPA.

Fully Protected Species Laws

The CDFW enforces Sections 3511, 4700, 5050, and 5515 of the California Fish and Game Code, which prohibit take of species designated as Fully Protected. The CDFW is not allowed to issue an Incidental Take Permit for Fully Protected species; therefore, impacts to these species must be avoided. The exception is a situation in which a Natural Community Conservation Plan (NCCP) is in place that authorizes take of the Fully Protected species.

Avian Protection Laws

California Fish and Game Code Sections 3503, 3503.5, and 3513 describe unlawful take, possession, or destruction of native birds, nests, and eggs. Section 3503.5 protects all birds-of-prey and their eggs and nests against take, possession, or destruction of nests or eggs. Section 3513 makes it a state-level offense to take any bird in violation of the federal Migratory Bird Treaty Act.

Protection of Lakes and Streambeds

California Fish and Game Code Section 1602 states it is unlawful for any person to "substantially divert or obstruct the natural flow of, or substantially change or use any material from the bed, channel, or bank of, any river, stream, or lake" without first notifying CDFW of that activity. Thereafter, if CDFW determines and informs the entity that the activity will not substantially adversely affect any existing fish or wildlife resources, the entity may commence the activity. If, however, CDFW determines that the activity may substantially adversely affect an existing fish or wildlife resource, the entity may be required to obtain from CDFW a Lake/Streambed Alteration Agreement (LSAA), which will include reasonable measures necessary to protect the affected resource(s), before the entity may conduct the activity described in the notification. Upon receiving a complete Notification of Lake/Streambed Alteration, CDFW has 60 days to present the entity with a Draft LSAA. Upon review of the Draft LSAA by the applicant, any problematic terms are negotiated with CDFW and a final LSAA is executed.

The CDFW has not defined the term "stream" for the purposes of implementing its regulatory program under Section 1602, and the agency has not promulgated regulations directing how jurisdictional streambeds may be identified, or how their limits should be delineated. However, four relevant sources of information offer insight as to the appropriate limits of CDFW jurisdiction as discussed below.

- **The plain language of Section 1602 of CFGC** establishes the following general concepts:
  - References "river," "stream," and "lake"
  - References "natural flow"
  - References "bed," "bank," and "channel"
- **Applicable court decisions**, in particular *Rutherford v. State of California* (188 Cal App. 3d 1276 (1987), which interpreted Section 1602's use of "stream" to be as defined in common law. The Court indicated that a "stream" is commonly understood to:
  - Have a source and a terminus
  - Have banks and a channel
  - Convey flow at least periodically, but need not flow continuously and may at times appear outwardly dry
  - Represent the depression between the banks worn by the regular and usual flow of the water
  - Include the area between the opposing banks measured from the foot of the banks from the top of the water at its ordinary stage, including intervening sand bars
  - Include the land that is covered by the water in its ordinary low stage
  - Include lands below the OHWM
- **CDFW regulations** defining "stream" for other purposes, including sport fishing (14 California Code of Regulations Section 1.72) and streambed alterations associated with cannabis production (14 California Code of Regulations Section 722[c][21]), which indicate that a stream:
  - Flows at least periodically or intermittently
  - Flows through a bed or channel having banks
  - Supports fish or aquatic life
  - Can be dry for a period of time
  - Includes watercourses where surface or subsurface flow supports or has supported riparian vegetation
- **Guidance documents**, *including A Field Guide to Lake and Streambed Alteration Agreements* (CDFW 1994) and *Methods to Describe and Delineate Episodic Stream Processes on Arid Landscapes for Permitting Utility-Scale Solar Power Plants* (Brady and Vyverberg 2013), which suggest the following:
  - A stream may flow perennially or episodically
  - A stream is defined by the course in which water currently flows, or has flowed during the historic hydrologic course regime (approximately the last 200 years)
  - Width of a stream course can reasonably be identified by physical or biological indicators
  - A stream may have one or more channels (single thread vs. compound form)
  - Features such as braided channels, low-flow channels, active channels, banks associated with secondary channels, floodplains, islands, and stream-associated vegetation, are interconnected parts of the watercourse
  - Canals, aqueducts, irrigation ditches, and other means of water conveyance can be considered streams if they support aquatic life, riparian vegetation, or stream-dependent terrestrial wildlife

- Biologic components of a stream may include aquatic and riparian vegetation, all aquatic animals including fish, amphibians, reptiles, invertebrates, and terrestrial species which derive benefits from the stream system
- The lateral extent of a stream can be measured in different ways depending on the particular situation and the type of fish or wildlife resource at risk

The tenets listed above, among others, are applied to establish the boundaries of streambeds in various environments. The importance of each factor may be weighted based on site-specific considerations and the applicability of the indicators to the streambed at hand.

Local Jurisdiction

City of Santa Clarita General Plan

Natural resources within the City of Santa Clarita's (City) limits are regulated according to the City's General Plan (City of Santa Clarita 2011), which includes policies regarding conservation of biological resources and ecosystems as well as protection of sensitive habitat (including wildlife corridors) and endangered species. The City's General Plan includes policies relating to oak trees, protected areas, and Significant Ecological Areas, among others.

Santa Clarita Municipal Code

Natural resources within the City are also regulated by the City's Municipal Code. In particular, the City of Santa Clarita Oak Tree Preservation Ordinance (Santa Clarita Municipal Code Section 17.51.040) protects and preserves oak trees in the City; the City's Parkway Trees Ordinance (Santa Clarita Municipal Code Section 13.76) protects native trees in the City and Santa Clarita Municipal Code Section 17.38.080 protects SEAs within the City.

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Appendix C

Special-status Species Evaluation Tables

Special-status Species in the Regional Vicinity of the Project Site

Scientific Name Common Name	Status	Habitat Requirements	Potential to Occur in Project Area	Habitat Suitability/ Observations
Plants and Lichens				
Arenaria paludicola marsh sandwort	FE/SCE G1/S1 1B.1	Perennial stoloniferous herb. Marshes and swamps. Openings, sandy. Elevations: 10-560ft. (3-170m.) Blooms May-Aug.	Not Expected	Intermittent Drainage 1 provides potentially suitable aquatic habitat. However, this is a conspicuous perennial species that would have been identifiable during the field surveys, and was not observed.
Berberis nevinii Nevin's barberry	FE/SCE G1/S1 1B.1	Perennial evergreen shrub. Chaparral, cismontane woodland, coastal scrub, riparian scrub. Gravelly (sometimes), sandy (sometimes). Elevations: 230-2705ft. (70-825m.) Blooms (Feb)Mar-Jun.	Not Expected	Potentially suitable chaparral and scrub habitat occurs in the APE. However, this is a conspicuous shrub species that would have been identifiable during the field surveys, and was not observed.
Calochortus catalinae Catalina mariposa lily	None/None G3G4/S3S4 4.2	Perennial bulbiferous herb. Chaparral, cismontane woodland, coastal scrub, valley and foothill grassland. In heavy soils, open slopes, openings in brush. Elevations: 50-2295ft. (15-700m.) Blooms (Feb)Mar-Jun.	Low Potential	Potentially suitable chaparral, scrub, and grassland habitat occurs in the APE above the northern bank of the SCR. However, there are no documented CNDDB records within a five mile radius of the APE.
Calochortus clavatus var. *avius* Pleasant Valley mariposa lily	None/None G4T2/S2 1B.2	Perennial bulbiferous herb. Lower montane coniferous forest. Josephine silt loam and volcanically derived soil; often in rocky areas. Elevations: 1000-5905ft. (305-1800m.) Blooms May-Jul.	Not Expected	Lower montane coniferous forest is absent from the APE.
Calochortus clavatus var. *clavatus* club-haired mariposa lily	None/None G4T3/S3 4.3	Perennial bulbiferous herb. Chaparral, cismontane woodland, coastal scrub, valley and foothill grassland. Clay, Rocky, serpentinite (usually). Elevations: 100-4265ft. (30-1300m.) Blooms (Mar)May-Jun.	Low Potential	Potentially suitable chaparral, scrub, and grassland habitat occurs in the APE above the northern bank of the SCR. However, there are no documented CNDDB records within a five mile radius of the APE.
Calochortus clavatus var. *gracilis* slender mariposa lily	None/None G4T2T3/S2S3 1B.2	Perennial bulbiferous herb. Chaparral, coastal scrub, valley and foothill grassland. Shaded foothill canyons; often on grassy slopes within other habitat. Elevations: 1050-3280ft. (320-1000m.) Blooms Mar-Jun(Nov).	High Potential	Potentially suitable chaparral, scrub, and grassland habitat occurs in the APE above the northern bank of the SCR. Additionally, there are multiple CNDDB records within a five mile radius of the APE, the closest being approximately 0.6 mile northeast (Occurrence No. 139).
Calochortus palmeri var. *palmeri* Palmer's mariposa lily	None/None G3T2/S2 1B.2	Perennial bulbiferous herb. Chaparral, lower montane coniferous forest, meadows and seeps. Mesic. Elevations: 2330-7840ft. (710-2390m.) Blooms Apr-Jul.	Not Expected	The APE is outside the known elevation range of the species.
Calochortus plummerae Plummer's mariposa lily	None/None G4/S4 4.2	Perennial bulbiferous herb. Chaparral, cismontane woodland, coastal scrub, lower montane coniferous forest, valley and foothill grassland. Granitic, rocky. Elevations: 330-5580ft. (100-1700m.) Blooms May-Jul.	Low Potential	Granitic/rocky areas are generally absent from the APE. The closest CNDDB record (Occurrence No. 188) is approximately 3.5 miles northeast of the APE.
Calystegia peirsonii Peirson's morning-glory	None/None G4/S4 4.2	Perennial rhizomatous herb. Chaparral, chenopod scrub, cismontane woodland, coastal scrub, lower montane coniferous forest, valley and foothill grassland. Often in disturbed areas or along roadsides or in grassy, open areas. Elevations: 100-4920ft. (30-1500m.) Blooms Apr-Jun.	Low Potential	Potentially suitable chaparral, scrub, and grassland habitat occurs in the APE above the northern bank of the SCR. Additionally, disturbed areas adjacent to unpaved access roads also occur to the north of the SCR. However, the only CNDDB records (Occurrence No.'s 5 and 8) within a five mile radius of the APE are more than 30 years old, and this is a perennial species that was not observed during the field surveys.
Centromadia parryi ssp. *australis* southern tarplant	None/None G3T2/S2 1B.1	Annual herb. Marshes and swamps, valley and foothill grassland, vernal pools. Often in disturbed sites near the coast at marsh edges; also in alkaline soils sometimes with saltgrass. Sometimes on vernal pool margins. Elevations: 0-1575ft. (0-480m.) Blooms May-Nov.	Not Expected	Aquatic habitat occurs in the SCR and Intermittent Drainage 1. However, Intermittent Drainage 1 is surrounded by dense riparian vegetation that is not preferred by the species, and the SCR is a linear drainage feature with coarse and sandy soils that are not preferred by the species. Additionally, the field surveys were performed in the blooming period for this species, and it was not observed.
Cercocarpus betuloides var. *blancheae* island mountain-mahogany	None/None G5T4/S4 4.3	Perennial evergreen shrub. Chaparral, closed-cone coniferous forest. Elevations: 100-1970ft. (30-600m.) Blooms Feb-May.	Not Expected	Potentially suitable chaparral and scrub habitat occurs in the APE. However, this is a conspicuous shrub species that would have been identifiable during the field survey, and was not observed.
Chorizanthe parryi var. *fernandina* San Fernando Valley spineflower	None/SCE G2T1/S1 1B.1	Annual herb. Coastal scrub, valley and foothill grassland. Sandy soils. Elevations: 490-4005ft. (150-1220m.) Blooms Apr-Jul.	Moderate Potential	Potentially suitable habitat occurs in the chaparral, scrub, and grassland habitat along the upper terrace to the north of the SCR in the northwestern portion of the APE. However, there are no CNDDB records of this species within a five mile radius of the APE.
Chorizanthe parryi var. *parryi* Parry's spineflower	None/None G3T2/S2 1B.1	Annual herb. Chaparral, cismontane woodland, coastal scrub, valley and foothill grassland. Openings, Rocky (sometimes), sandy (sometimes). Elevations: 900-4005ft. (275-1220m.) Blooms Apr-Jun.	Moderate Potential	Potentially suitable habitat occurs in the chaparral, scrub, and grassland habitat along the upper terrace to the north of the SCR in the northwestern portion of the APE. However, there are no CNDDB records of this species within a five mile radius of the APE.
Deinandra minthornii Santa Susana tarplant	None/SCR G2/S2 1B.2	Perennial deciduous shrub. Chaparral, coastal scrub. On sandstone outcrops and crevices, in shrubland. Elevations: 920-2495ft. (280-760m.) Blooms Jul-Nov.	Not Expected	Potentially suitable chaparral and scrub habitat occurs in the APE. However, this is a conspicuous shrub species that would have been identifiable during the field surveys, and was not observed.

Scientific Name Common Name	Status	Habitat Requirements	Potential to Occur in Project Area	Habitat Suitability/ Observations
Deinandra paniculata paniculate tarplant	None/None G4/S4 4.2	Annual herb. Coastal scrub, valley and foothill grassland, vernal pools. Usually in vernally mesic sites. Sometimes in vernal pools or on mima mounds near them. Elevations: 80-3085ft. (25-940m.) Blooms (Mar)Apr-Nov.	Not Expected	Vernally mesic sites within coastal scrub and/or grassland habitat are absent from the APE.
Dodecahema leptoceras slender-horned spineflower	FE/SCE G1/S1 1B.1	Annual herb. Chaparral, cismontane woodland, coastal scrub. Flood deposited terraces and washes; associates include Encelia, Dalea, Lepidospartum, etc. Sandy soils. Elevations: 655-2495ft. (200-760m.) Blooms Apr-Jun.	Moderate Potential	Potentially suitable coastal scrub habitat occurs in the APE within the banks of the SCR, particularly within the lower terraces above the low-flow channel. Additionally, there are multiple CNDDB records within a five mile radius of the APE, the closest recent occurrence (i.e., less than 30 years old) being approximately 3.5 miles northeast (Occurrence No. 279). However, this species was not observed in the APE during field surveys performed in April 2013 (Dudek 2013).
Dudleya densiflora San Gabriel Mountains dudleya	None/None G2/S2 1B.1	Perennial herb. Chaparral, cismontane woodland, coastal scrub, lower montane coniferous forest, riparian woodland. In crevices and on decomposed granite on cliffs and canyon walls. Elevations: 800-2000ft. (244-610m.) Blooms Mar-Jul.	Not Expected	Decompressed granite on cliffs and rocky canyon walls are absent from the APE. The northern bank of the SCR includes a steep face in the eastern portion of the APE. However, soils in this area are loamy/sandy, and do not contain clusters of rocks. Additionally, this is a conspicuous perennial species that that would have been identifiable during the field surveys, and was not observed.
Harpagonella palmeri Palmer's grapplinghook	None/None G4/S3 4.2	Annual herb. Chaparral, coastal scrub, valley and foothill grassland. Clay soils; open grassy areas within shrubland. Elevations: 65-3135ft. (20-955m.) Blooms Mar-May.	Not Expected	Potentially suitable habitat occurs in the chaparral, scrub, and grassland habitat along the upper terrace to the north of the SCR in the northwestern portion of the APE. However, the only CNDDB record (Occurrence No. 60) of this species within a five mile radius of the APE is a non-specific, undated record, and clay soils are absent from the APE.
Hordeum intercedens vernal barley	None/None G3G4/S3S4 3.2	Annual herb. Coastal dunes, coastal scrub, valley and foothill grassland, vernal pools. Vernal pools, dry, saline streambeds, alkaline flats. 5-. Elevations: 15-3280ft. (5-1000m.) Blooms Mar-Jun.	Not Expected	Vernal pools, dry saline streambeds, and alkaline flats are absent from the APE.
Horkelia cuneata var. *puberula* mesa horkelia	None/None G4T1/S1 1B.1	Perennial herb. Chaparral, cismontane woodland, coastal scrub. Sandy or gravelly sites. Elevations: 230-2660ft. (70-810m.) Blooms Feb-Jul(Sep).	Low Potential	Potentially suitable chaparral and scrub habitat occurs in the APE. However, this is a conspicuous perennial species that would have been identifiable during the field surveys, and was not observed.
Imperata brevifolia California satintail	None/None G3/S3 2B.1	Perennial rhizomatous herb. Chaparral, coastal scrub, meadows and seeps, mojavean desert scrub, riparian scrub. Mesic sites, alkali seeps, riparian areas. 3-. Elevations: 0-3985ft. (0-1215m.) Blooms Sep-May.	Low Potential	Intermittent Drainage 1 and wetted portions of the SCR provide potentially suitable mesic habitat. However, this is a conspicuous perennial species that would have been identifiable during the field surveys, and was not observed.
Juglans californica Southern California black walnut	None/None G4/S4 4.2	Perennial deciduous tree. Chaparral, cismontane woodland, coastal scrub, riparian woodland. Slopes, canyons, alluvial habitats. Elevations: 165-2955ft. (50-900m.) Blooms Mar-Aug.	Not Expected	Potentially suitable chaparral and scrub habitat occurs in the APE. However, this is a conspicuous tree species that would have been identifiable during the field surveys, and was not observed.
Juncus acutus ssp. *leopoldii* southwestern spiny rush	None/None G5T5/S4 4.2	Perennial rhizomatous herb. Coastal dunes, marshes and swamps, meadows and seeps. Moist saline places. Elevations: 10-2955ft. (3-900m.) Blooms (Mar)May-Jun.	Not Expected	Moist saline places are absent from the APE.
Lepechinia fragrans fragrant pitcher sage	None/None G3/S3 4.2	Perennial shrub. Chaparral. Elevations: 65-4300ft. (20-1310m.) Blooms Mar-Oct.	Not Expected	Potentially suitable chaparral habitat occurs in the APE. However, this is a conspicuous shrub species that would have been identifiable during the field surveys, and was not observed.
Lepechinia rossii Ross' pitcher sage	None/None G1/S1 1B.2	Perennial shrub. Chaparral. Soil derived from fine-grained, reddish sedimentary rock. Elevations: 1000-2590ft. (305-790m.) Blooms May-Sep.	Not Expected	Potentially suitable chaparral habitat occurs in the APE. However, this is a conspicuous shrub species that would have been identifiable during the field surveys, and was not observed.
Lepidium virginicum var. *robinsonii* Robinson's pepper-grass	None/None G5T3/S3 4.3	Annual herb. Chaparral, coastal scrub. Dry soils, shrubland. 4-. Elevations: 5-2905ft. (1-885m.) Blooms Jan-Jul.	Low Potential	Potentially suitable chaparral and coastal scrub habitat occurs in the APE above the northern bank of the SCR. However, there are no documented CNDDB records within a five mile radius of the APE.
Lilium humboldtii ssp. *ocellatum* ocellated Humboldt lily	None/None G4T4?/S4? 4.2	Perennial bulbiferous herb. Chaparral, cismontane woodland, coastal scrub, lower montane coniferous forest, riparian woodland. Yellow-pine forest or openings, oak canyons. Elevations: 100-5905ft. (30-1800m.) Blooms Mar-Jul(Aug).	Not Expected	Intermittent Drainage 1 and wetted portions of the SCR provide potentially suitable mesic habitat. However, this is a conspicuous perennial species that would have been identifiable during the field surveys, and was not observed.
Malacothamnus davidsonii Davidson's bush-mallow	None/None G2/S2 1B.2	Perennial deciduous shrub. Chaparral, cismontane woodland, coastal scrub, riparian woodland. Sandy washes. Elevations: 605-3740ft. (185-1140m.) Blooms Jun-Jan.	Not Expected	Potentially suitable chaparral and coastal scrub habitat occurs in the APE. However, this is a conspicuous shrub species that would have been identifiable during the field surveys, and was not observed.

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Mucronea californica California spineflower	None/None G3/S3 4.2	Annual herb. Chaparral, cismontane woodland, coastal dunes, coastal scrub, valley and foothill grassland. Sandy soil. Elevations: 0-4595ft. (0-1400m.) Blooms Mar-Jul(Aug).	Low Potential	Potentially suitable chaparral, coastal scrub, and grassland habitat occurs in the APE above the northern bank of the SCR. However, there are no documented CNDDB records within a five mile radius of the APE.
Nasturtium gambelii Gambel's water cress	FE/SCT G1/S1 1B.1	Marshes and swamps (brackish, freshwater). Freshwater and brackish marshes at the margins of lakes and along streams, in or just above the water level. 5-305 m. Blooms Apr-Oct.	Not Expected	Intermittent Drainage 1 and the wetted portions of the SCR provide potentially suitable aquatic habitat. However, this is a conspicuous perennial species that would have been identifiable during the field surveys, and was not observed.
Navarretia fossalis spreading navarretia	FT/None G2/S2 1B.1	Annual herb. Chenopod scrub, marshes and swamps, playas, vernal pools. San Diego hardpan and San Diego claypan vernal pools; in swales and vernal pools, often surrounded by other habitat types. Elevations: 100-2150ft. (30-655m.) Blooms Apr-Jun.	Not Expected	Chenopod scrub, vernal pools, and swales are absent from the APE
Navarretia setiloba Piute Mountains navarretia	None/None G2/S2 1B.1	Annual herb. Cismontane woodland, pinyon and juniper woodland, valley and foothill grassland. Red clay soils, or on gravelly loam. Elevations: 935-6890ft. (285-2100m.) Blooms Apr-Jul.	Low Potential	Limited annual grassland habitat occurs to the north of the northern bank of the SCR. However, red clay soils and gravelly loam are generally absent from this area.
Opuntia basilaris var. *brachyclada* short-joint beavertail	None/None G5T3/S3 1B.2	Perennial stem. Chaparral, joshua tree woodland, mojavean desert scrub, pinyon and juniper woodland. Sandy soil or coarse, granitic loam. Elevations: 1395-5905ft. (425-1800m.) Blooms Apr-Jun(Aug).	Not Expected	Potentially suitable chaparral habitat occurs in the APE. However, this is a conspicuous perennial species that would have been identifiable during the field survey, and was not observed.
Orcuttia californica California Orcutt grass	FE/SCE G1/S1 1B.1	Annual herb. Vernal pools. Elevations: 50-2165ft. (15-660m.) Blooms Apr-Aug.	Not Expected	Vernal pools are absent from the APE.
Pseudognaphalium leucocephalum white rabbit-tobacco	None/None G4/S2 2B.2	Perennial herb. Chaparral, cismontane woodland, coastal scrub, riparian woodland. Sandy, gravelly sites. Elevations: 0-6890ft. (0-2100m.) Blooms (Jul)Aug-Nov(Dec).	Low Potential	Potentially suitable chaparral, coastal scrub and riparian woodland habitat occurs in the banks of the SCR in the APE to support this species. However, this is a conspicuous perennial species that would have been identifiable during the field surveys, and was not observed.
Quercus durata var. *gabrielensis* San Gabriel oak	None/None G4T3/S3 4.2	Perennial evergreen shrub. Chaparral, cismontane woodland. Elevations: 1475-3280ft. (450-1000m.) Blooms Apr-May.	Not Expected	Potentially suitable chaparral habitat occurs in the APE. However, this is a conspicuous shrub species that would have been identifiable during the field survey, and was not observed.
Senecio aphanactis chaparral ragwort	None/None G3/S2 2B.2	Annual herb. Chaparral, cismontane woodland, coastal scrub. Drying alkaline flats. Elevations: 50-2625ft. (15-800m.) Blooms Jan-Apr(May).	Not Expected	Alkaline areas within coastal scrub are absent from the APE. Additionally, there are no CNDDB records within a five mile radius of the APE.
Symphyotrichum greatae Greata's aster	None/None G2/S2 1B.3	Perennial rhizomatous herb. Broadleafed upland forest, chaparral, cismontane woodland, lower montane coniferous forest, riparian woodland. Mesic canyons. Elevations: 985-6595ft. (300-2010m.) Blooms Jun-Oct.	Not Expected	Potentially suitable mesic habitat occurs in Intermittent Drainage 1 and the SCR in the APE. However, this is a conspicuous perennial species that would have been identifiable during the field surveys, and was not observed.
Wildlife				
Invertebrates				
Bombus crotchii Crotch bumble bee	None/SCE G2/S2	Coastal California east to the Sierra-Cascade crest and south into Mexico. Food plant genera include Antirrhinum, Phacelia, Clarkia, Dendromecon, Eschscholzia, and Eriogonum.	Moderate Potential	Potentially suitable habitat occurs in the open scrubby and/or grassland habitat in the APE, including suitable forage genera (e.g., *Eriogonum*) and open, undeveloped land. One historic CNDDB record (Occurrence No. 135) overlaps the APE, and one recent CNDDB record (Occurrence No. 326) from 2019 is located approximately 3.3 miles south of the APE. This species may utilize the APE for foraging. Crotch bumble bees are not expected nest in the APE, as limited rodent dens were observed in the APE, and a large portion of the APE has been previously disturbed.
Branchinecta lynchi vernal pool fairy shrimp	FT/None G3/S3	Endemic to the grasslands of the Central Valley, Central Coast mountains, and South Coast mountains, in astatic rain-filled pools. Inhabit small, clear-water sandstone-depression pools and grassed swale, earth slump, or basalt-flow depression pools.	Not Expected	Vernal pools are absent from the APE.
Danaus plexippus pop. 1 monarch - California overwintering population	FC/None G4T2T3/S2S3	Winter roost sites extend along the coast from northern Mendocino to Baja California, Mexico. Roosts located in wind-protected tree groves (eucalyptus, Monterey pine, cypress), with nectar and water sources nearby.	Not Expected	No suitable eucalyptus groves are present within the APE.
Euphydryas editha quino quino checkerspot butterfly	FE/None G5T1T2/S1S2	Sunny openings within chaparral and coastal sage shrublands in parts of Riverside and San Diego counties. Hills and mesas near the coast. Need high densities of food plants Plantago erecta, P. insularis, and Orthocarpus purpurescens.	Not Expected	The APE is outside the known range of the species and suitable food plants are absent from the APE.

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Streptocephalus woottoni Riverside fairy shrimp	FE/None G1G2/S1S2	Endemic to Western Riverside, Orange, and San Diego counties in areas of tectonic swales/earth slump basins in grassland and coastal sage scrub. Inhabit seasonally astatic pools filled by winter/spring rains. Hatch in warm water later in the season.	Not Expected	Vernal pools are absent from the APE.
Fish				
Catostomus santaanae Santa Ana sucker	FT/None G1/S1	Endemic to Los Angeles Basin south coastal streams. Habitat generalists, but prefer sand-rubble-boulder bottoms, cool, clear water, and algae.	Moderate Potential	Potentially suitable aquatic habitat occurs in the low-flow channel of the SCR, including sandy substrate and presence of algae. However, because there is no permanent water flow in this stretch of the SCR, this species would only occupy the river after a large storm event. One CNDDB record (Occurrence No. 13) from 1993 is located in the SCR approximately 3.5 miles upstream (east) of the APE.
Gasterosteus aculeatus williamsoni unarmored threespine stickleback	FE/SE G5T1/S1 FP	Weedy pools, backwaters, and among emergent vegetation at the stream edge in small Southern California streams. Cool (<24 C), clear water with abundant vegetation.	Moderate Potential	Potentially suitable aquatic habitat occurs in the low-flow channel of the SCR, including presence of aquatic vegetation (e.g., watercress) and slow-moving water. However, because there is no permanent water flow in this stretch of the SCR, this species would only occupy the river after a large storm event. Two CNDDB records (Occurrence No. 4 and 10) are located in the SCR approximately 3.5 miles upstream (Occurrence No. 4) and 3 miles downstream (Occurrence No. 10) of the APE.
Gila orcuttii arroyo chub	None/None G2/S2 SSC	Native to streams from Malibu Creek to San Luis Rey River basin. Introduced into streams in Santa Clara, Ventura, Santa Ynez, Mojave and San Diego river basins. Slow water stream sections with mud or sand bottoms. Feeds heavily on aquatic vegetation and associated invertebrates.	Moderate Potential	Potentially suitable aquatic habitat occurs in the low-flow channel of the SCR, including sandy substrate and presence of algae. However, because there is no permanent water flow in this stretch of the SCR, this species would only occupy the river after a large storm event. One CNDDB record (Occurrence No. 44) from 1999 is located in the SCR approximately 3 miles downstream (west) of the APE.
Amphibians				
Anaxyrus californicus arroyo toad	FE/None G2G3/S2 SSC	Semi-arid regions near washes or intermittent streams, including valley-foothill and desert riparian, desert wash, etc. Rivers with sandy banks, willows, cottonwoods, and sycamores; loose, gravelly areas of streams in drier parts of range.	Moderate Potential	Only one CNDDB record for this species exists within five miles of the APE, and is located approximately four miles upstream (Occurrence No. 48). There is a low probability of the species migrating through the APE because the SCR lacks sufficient water flow in this stretch of the SCR to support arroyo toad breeding. Therefore, this species has a moderate potential to occur.
Spea hammondii western spadefoot	None/None G2G3/S3S4 SSC	Occurs primarily in grassland habitats, but can be found in valley-foothill hardwood woodlands. Vernal pools are essential for breeding and egg-laying.	Moderate Potential	Vernal pools are absent from the APE. However, suitable grassland habitat occurs to the north of the northern bank of the SCR in the APE, and there are four CNDDB records (Occurrence No.'s 342-344, 1062) within one mile of the APE. This species may utilize the APE for foraging, but is not expected to use the APE for breeding.
Reptiles				
Anniella spp. California legless lizard	None/None G3G4/S3S4 SSC	Contra Costa County south to San Diego, within a variety of open habitats. This element represents California records of Anniella not yet assigned to new species within the Anniella pulchra complex. Variety of habitats; generally in moist, loose soil. They prefer soils with a high moisture content.	High Potential	Suitable open scrub and grassland habitats in and adjacent to the SCR are present within the APE, as well as loose, moist soil adjacent to the active channel of the SCR. There are multiple CNDDB records of this species within a five mile radius of the APE, including one record that overlaps the APE (Occurrence No. 67).
Arizona elegans occidentalis California glossy snake	None/None G5T2/S2 SSC	Patchily distributed from the eastern portion of San Francisco Bay, southern San Joaquin Valley, and the Coast, Transverse, and Peninsular ranges, south to Baja California. Generalist reported from a range of scrub and grassland habitats, often with loose or sandy soils.	Low Potential	Suitable open habitat with sandy soils are present within the banks of the SCR in the APE. However, all three CNDDB records within a five mile radius of the APE are more than 60 years old.
Aspidoscelis tigris stejnegeri coastal whiptail	None/None G5T5/S3 SSC	Found in deserts and semi-arid areas with sparse vegetation and open areas. Also found in woodland and riparian areas. Ground may be firm soil, sandy, or rocky.	High Potential	Suitable open scrub and grassland habitats in and adjacent to the SCR are present within the APE. There are multiple CNDDB records of this species within a five mile radius of the APE, the closest being 0.2 mile southwest (Occurrence No. 117).
Phrynosoma blainvillii coast horned lizard	None/None G3G4/S4 SSC	Frequents a wide variety of habitats, most common in lowlands along sandy washes with scattered low bushes. Open areas for sunning, bushes for cover, patches of loose soil for burial, and abundant supply of ants and other insects.	Moderate Potential	Suitable open scrub and grassland habitats with loose soils in and adjacent to the SCR are present within the APE. There are multiple CNDDB records of this species within a five mile radius of the APE, the closest being 3.5 miles east in Bee Canyon Wash (Occurrence No. 465).
Thamnophis hammondii two-striped gartersnake	None/None G4/S3S4 SSC	Coastal California from vicinity of Salinas to northwest Baja California. From sea to about 7,000 ft elevation. Highly aquatic, found in or near permanent fresh water. Often along streams with rocky beds and riparian growth.	Low Potential	Potentially suitable riparian habitat occurs in Intermittent Drainage 1 and the SCR. However, permanent sources of fresh water are absent from the APE, as the aforementioned drainage features are subject to periods of drying during summer months.

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Birds				
Accipiter cooperii Cooper's hawk	None/None G5/S4 WL	Woodland, chiefly of open, interrupted or marginal type. Nest sites mainly in riparian growths of deciduous trees, as in canyon bottoms on river flood-plains; also, live oaks.	Moderate Potential	Potentially suitable nesting and/or foraging habitat is present in the Fremont cottonwood forest and woodland vegetation community in the APE. Additionally, this species was observed in the western portion of the APE in 2009 (City of Santa Clarita 2010).
Aimophila ruficeps canescens southern California rufous-crowned sparrow	None/None G5T3/S3 WL	Resident in Southern California coastal sage scrub and sparse mixed chaparral. Frequents relatively steep, often rocky hillsides with grass and forb patches.	Low Potential	The western portion of the APE contains potentially suitable coastal scrub and chaparral, which are bounded by the SCR/residential development to the south and SR-14 to the north. Additionally, this species was documented in the western portion of the APE in 2009 (City of Santa Clarita 2010).
Artemisiospiza belli belli Bell's sage sparrow	None/None G5T2T3/S3 WL	Nests in chaparral dominated by fairly dense stands of chamise. Found in coastal sage scrub in south of range. Nest located on the ground beneath a shrub or in a shrub 6-18 inches above ground. Territories about 50 yds apart.	Low Potential	While chamise chaparral occurs within the western portion of the APE, this vegetation community contains loosely scattered shrub individuals with many open spaces in between shrubs. Therefore, this species has a low potential to occur.
Athene cunicularia burrowing owl	None/None G4/S3 SSC	Open, dry annual or perennial grasslands, deserts, and scrublands characterized by low-growing vegetation. Subterranean nester, dependent upon burrowing mammals, most notably, the California ground squirrel.	Low Potential	Suitable open habitat is present in the northern portion of the APE adjacent to the SCR. However, no mammalian activity was limited to a single ground squirrel during the field survey, and few mammal burrows were observed. None of the mammal burrows observed exhibited sign of burrowing owl (i.e., whitewash, pellets, feathers).
Coccyzus americanus occidentalis western yellow-billed cuckoo	FT/SE G5T2T3/S1	Riparian forest nester, along the broad, lower flood-bottoms of larger river systems. Nests in riparian jungles of willow, often mixed with cottonwoods, with lower story of blackberry, nettles, or wild grape.	Low Potential	The central portion of the APE features low-quality riparian habitat for nesting and foraging for this species, as it contains a few isolated patches of Fremont cottonwood forest with some mature overstory Fremont cottonwood trees, and understory shrubs such as mulefat. There are no CNDDB occurrences within a five mile radius of the APE, and the APE is not located within USFWS-designated critical habitat for the species.
Empidonax traillii extimus southwestern willow flycatcher	FE/SE G5T2/S1	Riparian woodlands in Southern California.	Low Potential	The central portion of the APE features low-quality riparian habitat for nesting and foraging for this species, as it contains a few isolated patches of Fremont cottonwood forest with some mature overstory Fremont cottonwood trees, and understory shrubs such as mulefat. There are no CNDDB occurrences within a five mile radius of the APE, and the APE is not located within USFWS-designated critical habitat for the species. The closest USFWS-designated critical habitat is more than eight miles downstream (west) of the APE.
Eremophila alpestris actia California horned lark	None/None G5T4Q/S4 WL	Coastal regions, chiefly from Sonoma County to San Diego County. Also main part of San Joaquin Valley and east to foothills. Short-grass prairie, "bald" hills, mountain meadows, open coastal plains, fallow grain fields, alkali flats.	High Potential	This species was previously documented within the western portion of the APE (City of Santa Clarita 2010). Potentially suitable habitat is present in the grassland (i.e., wild oats and annual brome grasslands) and sparse scrub communities in the APE.
Falco mexicanus prairie falcon	None/None G5/S4 WL	Inhabits dry, open terrain, either level or hilly. Breeding sites located on cliffs. Forages far afield, even to marshlands and ocean shores.	Low Potential	Suitable breeding habitat (i.e., cliffsides) is absent from the APE. Although the APE contains some open habitat, it is fragmented by development to the north (the SR 14) and the south (residential development). Therefore, foraging habitat is considered low quality. Only one historic CNDDB record (Occurrence No. 465) from 1980 occurs approximately 2.6 miles east of the APE.
Gymnogyps californianus California condor	FE/SE G1/S1 FP	Require vast expanses of open savannah, grasslands, and foothill chaparral in mountain ranges of moderate altitude. Deep canyons containing clefts in the rocky walls provide nesting sites. Forages up to 100 miles from roost/nest.	Not Expected	Potentially suitable foraging (i.e., open savannah, grasslands, or foothill chaparral) and breeding (i.e., cliffsides) habitat are absent from the APE.
Lanius ludovicianus loggerhead shrike	None/None G4/S4 SSC	Broken woodlands, savannah, pinyon-juniper, Joshua tree, and riparian woodlands, desert oases, scrub and washes. Prefers open country for hunting, with perches for scanning, and fairly dense shrubs and brush for nesting.	Low Potential	One CNDDB occurrence almost 5 miles NW. Look for suitable perches/habitat.
Polioptila californica californica coastal California gnatcatcher	FT/None G4G5T3Q/S2 SSC	Obligate, permanent resident of coastal sage scrub below 2500 ft in Southern California. Low, coastal sage scrub in arid washes, on mesas and slopes. Not all areas classified as coastal sage scrub are occupied.	Low Potential	Marginally suitable coastal sage scrub habitat exists in the western portion of the APE. The coastal sage scrub habitat within the APE includes sparsely scattered shrubs (e.g., California sagebrush and California buckwheat), and is fragmented by development to the north and south of the APE. One CNDDB record overlaps the APE (Occurrence No. 998), but is more than 80 years old and is a non-specific occurrence that overlaps the entirety of Mint Canyon and Forest Park. The closest recent CNDDB record (Occurrence No. 845) is approximately 2.5 miles southwest. The APE is not located within USFWS-designated critical habitat for the species. The closest USFWS-designated critical habitat is approximately 1.5 miles south of the APE.

Scientific Name Common Name	Status	Habitat Requirements	Potential to Occur in Project Area	Habitat Suitability/ Observations
Vireo bellii pusillus least Bell's vireo	FE/SE G5T2/S2	Summer resident of Southern California in low riparian in vicinity of water or in dry river bottoms; below 2000 ft. Nests placed along margins of bushes or on twigs projecting into pathways, usually willow, Baccharis, mesquite.	Low Potential	The central portion of the APE features low-quality riparian habitat for nesting and foraging for this species, as it contains a few isolated patches of Fremont cottonwood forest with some mature overstory Fremont cottonwood trees, and understory shrubs such as mulefat. There are no CNDDB occurrences within a five mile radius of the APE, and the APE is not located within USFWS-designated critical habitat for the species. The closest USFWS-designated critical habitat is more than eight miles downstream (west) of the APE.
Mammals				
Corynorhinus townsendii Townsend's big-eared bat	None/None G4/S2 SSC	Occurs throughout California in a wide variety of habitats. Most common in mesic sites, typically coniferous or deciduous forests. Roosts in the open, hanging from walls, ceilings in caves, lava tubes, bridges, and buildings. This species is extremely sensitive to human disturbance.	Not Expected	Isolated patches of Fremont cottonwood forest occur in the southern portion of the APE within the banks of the SCR and Intermittent Drainage 1. However, these areas are situated immediately adjacent to development (e.g., SR 14, commercial and residential development). One historic CNDDB record (Occurrence No. 305) from 1942 is located approximately 3 miles north of the APE.
Eumops perotis californicus western mastiff bat	None/None G4G5T4/S3S4 SSC	Occurs in open, semi-arid to arid habitats, including coniferous and deciduous woodlands, coastal scrub, grasslands, and chaparral. Roosts in crevices in cliff faces and caves, and buildings. Roosts typically occur high above ground.	Low Potential	Suitable roosting habitat (rock crevices in cliffs and caves) is absent from the APE. While existing structures are present in the APE, they are frequently disturbed/occupied by humans, and do not provide suitable roosting habitat. Use of the APE by this species would be for foraging only.
Lepus californicus bennettii San Diego black-tailed jackrabbit	None/None G5T3T4/S3S4	Occurs in Los Angeles, San Bernardino, Riverside, and San Diego Counties of southern California. Typically found in open shrub habitats. Will also occur in woodland habitats with open understory adjacent to shrublands.	High Potential	Suitable habitat exists within the banks of the SCR throughout the APE, as well as the chaparral and scrub habitats to the north of the SCR. Additionally, there is a recent CNDDB record (Occurrence No. 106) within the SCR approximately 300 feet southwest of the proposed staging area.
Onychomys torridus ramona southern grasshopper mouse	None/None G5T3/S3 SSC	Desert areas, especially scrub habitats with friable soils for digging. Prefers low to moderate shrub cover. Feeds almost exclusively on arthropods, especially scorpions and orthopteran insects.	Not Expected	Scrub habitat is present within the APE; however, the soils in the APE are primarily sandy, and are not friable. Additionally, only one historic CNDDB record (Occurrence No. 24) from 1930 occurs within a five mile radius of the APE, approximately five miles northeast.

Regional Vicinity refers to within a nine-quadrangle search area of site.

Status (Federal/State)

FE = Federal Endangered
FT = Federal Threatened
FPE = Federal Proposed Endangered
FPT = Federal Proposed Threatened
FD = Federal Delisted
FC = Federal Candidate
SE = State Endangered
ST = State Threatened
SCE = State Candidate Endangered
SCT = State Candidate Threatened
SR = State Rare
SD = State Delisted
SSC = CDFW Species of Special Concern
FP = CDFW Fully Protected
WL = CDFW Watch List

Other Statuses

G1 or S1 Critically Imperiled Globally or Subnationally (state)
G2 or S2 Imperiled Globally or Subnationally (state)
G3 or S3 Vulnerable to extirpation or extinction Globally or Subnationally (state)
G4/5 or S4/5 Apparently secure, common and abundant
GH or SH Possibly Extirpated – missing; known from only historical occurrences but still some hope of rediscovery

California Rare Plant Rank (California Native Plant Society)

1A = Presumed extirpated in California, and rare or extinct elsewhere
1B = Rare, Threatened, or Endangered in California and elsewhere
2A = Presumed extirpated in California, but common elsewhere
2B= Rare, Threatened, or Endangered in California, but more common elsewhere
3 = Need more information (Review List)
4 = Limited Distribution (Watch List)

California Rare Plant Rank Threat Code Extension

.1 = Seriously endangered in California (>80% of occurrences threatened/high degree and immediacy of threat)
.2 = Moderately threatened in California (20 to 80% of occurrences threatened/moderate degree and immediacy of threat)
.3 = Not very endangered in California (<20% of occurrences threatened/low degree and immediacy of threat)

Additional notations may be provided as follows

T – Intraspecific Taxon (subspecies, varieties, and other designations below the level of species)
Q – Questionable taxonomy that may reduce conservation priority
? – Inexact numeric rank

Appendix D

Site Photographs

Photograph 1. Photo Point 1. View of the western portion of the APE, showing the SCR on the right and an existing access road on the left, facing east (August 1, 2023).

Photograph 2. Photo Point 2. View of the western portion of the APE, showing an existing access road and Mitchell Hill to the right (north), facing west (August 1, 2023).

Photograph 3. Photo Point 3. View of the western portion of the APE above the SCR channel on Mitchell Hill. Note presence of wild oats and annual brome grasslands and clustered tarweed fields, facing southwest (August 1, 2023).

Photograph 4. Photo Point 4. View of the chamise chaparral vegetation community in the western portion of the APE, facing southwest. This vegetation community occurs on Mitchell Hill where jack-and-bore construction would occur (August 1, 2023).

Photograph 5. Photo Point 5. View of the western portion of the APE where jack-and-bore activities would occur, facing southwest. Note existing access road and SCR channel (August 1, 2023).

Photograph 6. Photo Point 6. View of the SCR channel in the southwestern portion of the APE, facing southeast. Note presence of non-native tree (e.g., blue gum eucalyptus) along the northern bank of the SCR, and California sagebrush – California buckwheat scrub along the side-slope (August 1, 2023).

Photograph 7. Photo Point 7. View of Fremont cottonwood woodland associated with Intermittent Drainage 1 in the western portion of the APE, facing northeast (August 1, 2023).

Photograph 8. Photo Point 8. View of chamise chaparral on Mitchell Hill adjacent to an existing trail in the western portion of the APE, and to the north of the SCR, facing north (August 1, 2023).

Photograph 9. Photo Point 9. View of the SCR channel in the central portion of the APE, immediately south of Intermitent Drainage 1, facing southwest (August 1, 2023).

Photograph 10. Photo Point 10. View of Intermittent Drainage 1 in the central portion of the APE, facing southwest. Note presence of cattails and Fremont cottonwood trees (August 1, 2023).

Photograph 11. Photo Point 11. View of an isolated patch of Fremont cottonwood woodland in the northern portion of the APE, facing west (August 1, 2023).

Photograph 12. Photo Point 12. View of the upland mustards vegetation community in the central portion of the APE and to the north of the SCR channel, facing southwest. The proposed access road would cross this non-native vegetation community (August 1, 2023).

Photograph 13. Photo Point 13. View of the thick-leaved yerba santa scrub vegetation community in the central portion of the APE, facing west. This vegetation community is located within the banks of the SCR (August 1, 2023).

Photograph 14. Photo Point 14. View of the active channel of the SCR in the southwestern portion of the APE, facing west (August 1, 2023).

Photograph 15. Photo Point 15. View of the northern bank of the SCR in the central portion of the APE where soil cement bank protection is proposed, facing west. Note unstable, eroding bank and compacted, barren soils immediately north of the bank (August 1, 2023).

Photograph 16. Photo Point 16. View of Ephemeral Drainage 1 at its confluence with the SCR in the central portion of the APE, facing northwest. Bridge installation is proposed at this location where the access road would cross the drainage feature (August 1, 2023).

Photograph 17. Photo Point 17. View of the California buckwheat scrub (right) and upland mustards (left) in the central portion of the APE, facing west (August 1, 2023).

Photograph 18. Photo Point 18. View of the northern bank of the SCR in the central portion of the APE where soil cement bank protection is proposed, facing east. Note unstable, eroding bank (August 1, 2023).

Photograph 19. Photo Point 19. View of the SCR channel in the eastern portion of the APE, facing southwest. Note dry riverbed and the riverwash land cover type (August 1, 2023).

Photograph 20. Photo Point 20. View of the SCR channel in the eastern portion of the APE, facing west. Note dry riverbed and the riverwash land cover type (August 1, 2023).

Photograph 21. Photo Point 21. View of the SCR near the Sand Canyon Road bridge, facing northeast. Note dry riverbed and isolated Fremont cottonwood tree to the right, and giant reed breaks to the left along the bank (August 1, 2023).

Photograph 22. Photo Point 22. View of the northern bank of the SCR in the northeastern portion of the APE, facing southwest. Note steep bank and presence of mulefat at the toe of the bank (August 1, 2023).

Photograph 23. Photo Point 23. View of the SCR in the northeastern portion of the APE, facing southwest. Note presence of abandoned, flipped car in the river bed (August 1, 2023).

Photograph 24. Photo Point 24. View of the scale broom scrub vegetation community in the northeastern portion of the APE, facing southwest (August 1, 2023).

Photograph 25. Photo Point 25. View of the northern bank of the SCR to the east of the Sand Canyon Bridge, facing southwest. Note presence of rip-rap along the northern bank (August 1, 2023).

Photograph 26. Photo Point 26. View of the Intermittent Drainage 1 culvert outlet that transports flows underneath SR-14 and into the APE, facing north. Note large amount of sediment deposition and riparian vegetation (August 4, 2023).

Photograph 27. Photo Point 27. View of Intermittent Drainage 1, highlighting slow-moving water and presence of riparian vegetation, facing south (August 4, 2023).

Photograph 28. Photo Point 28. View of the SCR channel in the central portion of the APE, facing east. Soil cement bank protection is proposed along the northern bank, which is on the left hand side of the photograph (August 4, 2023).

Photograph 29. Photo Point 29. View of the confluence between Ephemeral Drainage 1 and the SCR, facing northeast (August 4, 2023).

Photograph 30. Photo Point 30. View of the tamarisk thickets vegetation community in the central portion of the APE, facing southeast. These non-native trees are anticipated to be removed as part of access road development (August 4, 2023).

Photograph 31. Photo Point 31. View of wetlands associated with Intermittent Drainage 1 in the central portion of the APE, facing southwest. Bridge installation is proposed at this location where the access road would cross the drainage feature (August 4, 2023).

Photograph 32. Photo Point 32. View of Fremont cottonwood tree that occurs near the eastern bore-pit location, facing northeast. This tree may require trimming and/or removal (August 4, 2023).

Photograph 33. Photo Point 33. View of the developed land cover type in the northeastern portion of the APE, facing northeast (August 4, 2023).

Photograph 34. Photo Point 34. View of the proposed staging area in the southwestern portion of the APE, facing east (October 16, 2023).

Photograph 35. Photo Point 35. View of an existing access road and the SCR channel in the southwestern portion of the APE near the proposed staging area, facing north (October 16, 2023).

Photograph 36. View of SP01, facing northwest (August 4, 2023).

Photograph 37. View of SP02, facing south (August 4, 2023).

Photograph 37. View of SP03, facing northeast (August 4, 2023).

Photograph 38. View of SP04, facing west (August 4, 2023).

Appendix E

Floral and Faunal Compendium

Plant and Wildlife Species Detected in the APE on August 1 and October 16, 2023

Scientific Name	Common Name	Status	Native or Introduced
Plants			
Acacia redolens	catclaw acacia	–	Introduced
Acmispon glaber	deerweed	–	Native
Adenostoma fasciculatum	chamise	–	Native
Ailanthus altissima	tree of heaven	Cal-IPC Moderate	Introduced
Ambrosia acanthicarpa	annual bursage	–	Native
Amsinckia menziesii	Menzies' fiddleneck	–	Native
Artemisia californica	California sagebrush	–	Native
Artemisia douglasiana	mugwort	–	Native
Artemisia dracunculus	tarragon	–	Native
Artemisia tridentata ssp. *tridentata*	big sagebrush	–	Native
Arundo donax	giant reed	Cal-IPC High	Introduced
Atriplex polycarpa	allscale saltbush	–	Native
Avena barbata	slender wild oats	Cal-IPC Moderate	Introduced
Baccharis salicifolia	mulefat	–	Native
Brassica nigra	black mustard	Cal-IPC Moderate	Introduced
Bromus rubens	red brome	Cal-IPC High	Introduced
Bromus tectorum	cheat grass	Cal-IPC High	Introduced
Carduus pycnocephalus	Italian thistle	Cal-IPC Moderate	Introduced
Centaurea melitensis	tocalote	Cal-IPC Moderate	Introduced
Chenopodium album	white goosefoot	–	Introduced
Chenopodium rubrum	red goosefot	–	Introduced
Chorizanthe brevicornu	brittle spineflower	–	Native
Chorizanthe staticoides	Turkish rugging	–	Native
Corethrogyne filaginifolia	common sandaster	–	Native
Croton setiger	doveweed	–	Native
Cryptantha intermedia	common cryptantha	–	Native
Cylindropuntia prolifera	coast cholla	–	Native
Cyperus eragrostis	tall flatsedge	–	Native
Datura wrightii	sacred datura	–	Native
Deinandra fasciculata	clustered tarweed	–	Native
Elymus condensatus	giant wild rye	–	Native
Encelia farinosa	brittle bush	–	Native
Eriastrum densifolium	giant eriastrum	–	Native
Ericameria nauseosa	rubber rabbit brush	–	Native
Erigeron canadensis	Canada horseweed	–	Native
Eriodictyon crassifolium	thick-leaved yerba santa	–	Native
Eriogonum elongatum	longstem buckwheat	–	Native

Scientific Name	Common Name	Status	Native or Introduced
Eriogonum fasciculatum	California buckwheat	–	Native
Erodium cicutarium	redstem filaree	Cal-IPC Limited	Introduced
Euphorbia albomarginata	rattlesnake sandmat	–	Introduced
Ficus carica	common fig	Cal-IPC Moderate	Introduced
Fraxinus velutina	Oregon ash	–	Native
Helianthus annuus	annual sunflower	–	Native
Heliotropium curassavicum	alkali heliotrope	–	Native
Heterotheca grandiflora	telegraph weed	–	Native
Heterotheca sessiliflora	golden aster	–	Native
Hirschfeldia incana	summer mustard	Cal-IPC Moderate	Introduced
Juniperus californica	California juniper	–	Native
Lactuca serriola	prickly lettuce	–	Introduced
Lepidium latifolium	perennial pepperweed	–	Introduced
Lepidospartum squamatum	scale broom	–	Native
Lessingia glandulifera	valley lessingia	–	Native
Lupinus bicolor	bicolor lupine	–	Native
Marrubium vulgare	white horehound	Cal-IPC Limited	Introduced
Melica imperfecta	California melicgrass	–	Native
Melilotus albus	white sweetclover	–	Introduced
Melilotus indica	yellow sweetclover	–	Introduced
Microsteris gracilis	slender phlox	–	Native
Mimulus guttata	seep monkeyflower	–	Native
Muhlenbergia rigens	deergrass	–	Native
Nicotiana glauca	tree tobacco	Cal-IPC Moderate	Introduced
Persicaria lapathifolia	common knotweed	–	Native
Phacelia cicutaria	caterpillar phacelia	–	Native
Phacelia ramosissima	branching phacelia	–	Native
Pinus spp.	ornamental pine	–	Introduced
Polygonum aviculare	prostrate knotweed	–	Introduced
Polypogon monspeliensis	annual rabbitsfoot grass	Cal-IPC Limited	Introduced
Populus fremontii	Fremont cottonwood	–	Native
Quercus agrifolia	coast live oak	–	Native
Rhus aromatica	fragrant sumac	–	Native
Ribes speciosum	fuchsiaflower gooseberry	–	Native
Ricinus communis	castor bean	Cal-IPC Limited	Introduced
Rumex crispus	curly dock	Cal-IPC Limited	Introduced
Salix exigua	sandbar willow	–	Native
Salix laevigata	red willow	–	Native
Salsola tragus	Russian thistle	Cal-IPC Limited	Introduced
Sambucus mexicana	blue elderberry	–	Native

Scientific Name	Common Name	Status	Native or Introduced
Schinus molle	Peruvian pepper tree	Cal-IPC Limited	Introduced
Schismus barbatus	Mediterranean grass	Cal-IPC Limited	Introduced
Schoenoplectus spp.	bulrush	–	Native
Sisymbrium irio	London rocket	Cal-IPC Limited	Introduced
Solanum xanti	chaparral nightshade	–	Native
Spartium junceum	Spanish broom	Cal-IPC High	Introduced
Stephanomeria cichoriacea	chicoryleaf wirelettuce	–	Native
Stipa miliaceae	smilo grass	–	Introduced
Tamarix aphylla	athel tamarisk	Cal-IPC Limited	Introduced
Typha spp.	cattail	–	Native
Veronica anagallis-aquatica	water speedwell	–	Introduced
Washingtonia robusta	Mexican fan palm	Cal-IPC Moderate	Introduced
Zeltnera exaltata	desert centaury	–	Native
Wildlife			
Birds			
Buteo jamaicensis	red-tailed hawk	–	Native
Charadrius vociferus	killdeer	–	Native
Corvus brachyrhynchos	American crow	–	Native
Corvus corax	common raven	–	Native
Lepus californicus	black-tailed jackrabbit	–	Native
Spinus psaltria	lesser goldfinch	–	Native
Mammals			
Canis latrans	coyote (scat)	–	Native
Canis lupus familiaris	domesticated dog	–	Native
Otospermophilus beecheyi	California ground squirrel	–	Native
Reptiles			
Sceloporus occidentalis	western fence lizard	–	Native

Source: Rincon Consultants biological resources reconnaissance field survey conducted on August 1 and October 16, 2023; Calflora 2023; California Invasive Plant Council (Cal-IPC) 2023, which rates introduced species according to their level of invasiveness.

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Appendix F

Ordinary High Water Mark and Wetland Determination Data Forms

Arid West Ephemeral and Intermittent Streams OHWM Datasheet

Project: SCUWA Sand Canyon
Project Number: 22-13523
Stream: Santa Clara River
Investigator(s): Kyle Gerin

Date: 2/14/2023 **Time:** 11:00 a m
Town: Santa Clarita **State:** CA
Photo begin file#: **Photo end file#:**

Y ☒ / N ☐ Do normal circumstances exist on the site?

Y ☐ / N ☒ Is the site significantly disturbed?

Location Details: W/ in SCR near Sand Canyon Road Bridge

Projection: USGS **Datum:** NAD83
Coordinates: 34.423674, -118.422226

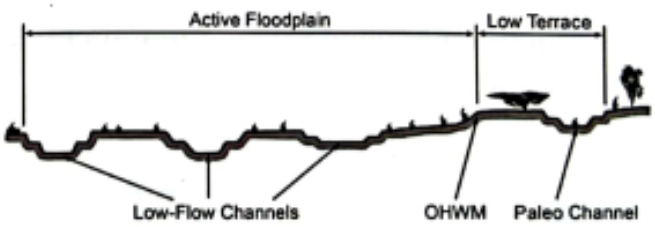
Potential anthropogenic influences on the channel system:
Anthropogenic pollution (fluids, trash, water sources), commercial / residential development

Brief site description:
Santa Clara River w/ in eastern limits of Santa Clarita. Intermittent portion of drainage w/ multiple low-flow channels

Checklist of resources (if available):

- ☒ Aerial photography
  Dates: 2023
- ☒ Topographic maps
- ☐ Geologic maps
- ☐ Vegetation maps
- ☐ Soils maps
- ☐ Rainfall/precipitation maps
- ☐ Existing delineation(s) for site
- ☒ Global positioning system (GPS)
- ☐ Other studies
- ☐ Stream gage data
  Gage number:
  Period of record:
  - ☐ History of recent effective discharges
  - ☐ Results of flood frequency analysis
  - ☐ Most recent shift-adjusted rating
  - ☐ Gage heights for 2-, 5-, 10-, and 25-year events and the most recent event exceeding a 5-year event

Hydrogeomorphic Floodplain Units

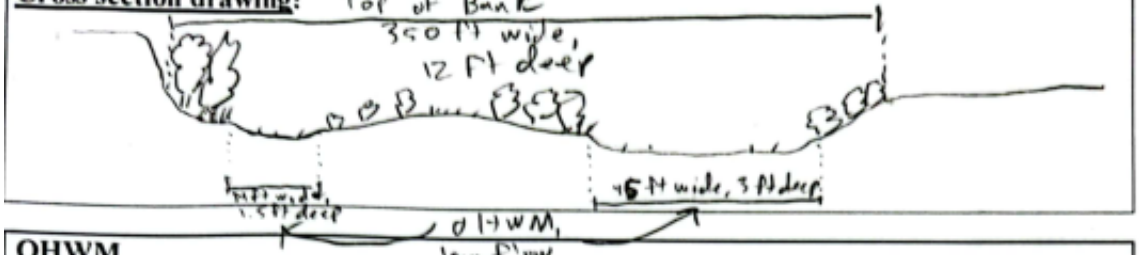


Procedure for identifying and characterizing the floodplain units to assist in identifying the OHWM:

1. Walk the channel and floodplain within the study area to get an impression of the geomorphology and vegetation present at the site.
2. Select a representative cross section across the channel. Draw the cross section and label the floodplain units.
3. Determine a point on the cross section that is characteristic of one of the hydrogeomorphic floodplain units.
   a) Record the floodplain unit and GPS position.
   b) Describe the sediment texture (using the Wentworth class size) and the vegetation characteristics of the floodplain unit.
   c) Identify any indicators present at the location.
4. Repeat for other points in different hydrogeomorphic floodplain units across the cross section.
5. Identify the OHWM and record the indicators. Record the OHWM position via:
   - ☐ Mapping on aerial photograph
   - ☐ Digitized on computer
   - ☒ GPS
   - ☐ Other:

Project ID: 22-13523 **Cross section ID:** SCR 011-01 **Date:** 8/4/2023 **Time:** 11:00 am

Cross section drawing:



OHWM

GPS point: Left OHWM: 34.423906, -118.422453
Right OHWM: 34.423556, -118.422067

Indicators:

- [1] Change in average sediment texture
- [2] Change in vegetation species
- [3] Change in vegetation cover
- [4] Break in bank slope
- [ ] Other: _____
- [ ] Other: _____

Comments:

1 - change from sand in OHWM to pebbles & fine sand above OHWM
2 - generally unvegetated in OHWM, & variety of species (e.g. fremont cottonwood, scale broom, thick-leaved yerba santa) above OHWM
3 - ↑ in veg cover outside OHWM; 4 - observed break in slope

Floodplain unit: [X] Low-Flow Channel [ ] Active Floodplain [ ] Low Terrace

GPS point: same as OHWM

Characteristics of the floodplain unit:

Average sediment texture: Sand
Total veg cover: 5 % Tree: 0 % Shrub: 2.5 % Herb: 2.5 %
Community successional stage:

- [ ] NA
- [X] Early (herbaceous & seedlings)
- [ ] Mid (herbaceous, shrubs, saplings)
- [ ] Late (herbaceous, shrubs, mature trees)

Indicators:

- [ ] Mudcracks
- [ ] Ripples
- [X] Drift and/or debris
- [X] Presence of bed and bank
- [X] Benches
- [X] Soil development
- [ ] Surface relief
- [ ] Other: _____
- [ ] Other: _____
- [ ] Other: _____

Comments:

Arid West Ephemeral and Intermittent Streams OHWM Datasheet

Project: SCVWA Sand Canyon
Project Number: 22-1562 3
Stream: Ephemeral drainage c1
Investigator(s): V Gern

Date: 8/11/2023 **Time:** 1:00pm
Town: Santa Clarita **State:** CA
Photo begin file#: **Photo end file#:**

Y ☒ / N ☐ Do normal circumstances exist on the site?

Y ☐ / N ☒ Is the site significantly disturbed?

Location Details: Tributary to SCR west of Sand Cyn bridge

Projection: WGS **Datum:** NAD83
Coordinates: 34.422593, -118.426606

Potential anthropogenic influences on the channel system:
Development, pollution

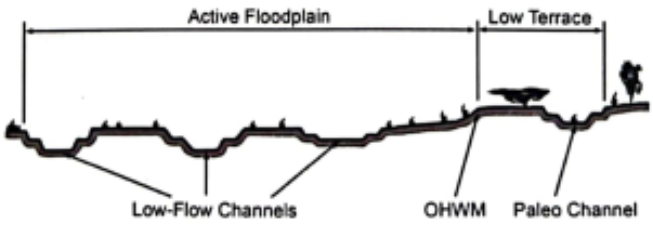
Brief site description:
small single-thread ephemeral drainage w/ mulefat thickets & buckwheat scrub vegetation. flows N->S into SCR

Checklist of resources (if available):

- ☒ Aerial photography
  Dates: 2023
- ☐ Topographic maps
- ☐ Geologic maps
- ☐ Vegetation maps
- ☐ Soils maps
- ☐ Rainfall/precipitation maps
- ☐ Existing delineation(s) for site
- ☒ Global positioning system (GPS)
- ☐ Other studies

- ☐ Stream gage data
  Gage number:
  Period of record:
- ☐ History of recent effective discharges
- ☐ Results of flood frequency analysis
- ☐ Most recent shift-adjusted rating
- ☐ Gage heights for 2-, 5-, 10-, and 25-year events and the most recent event exceeding a 5-year event

Hydrogeomorphic Floodplain Units

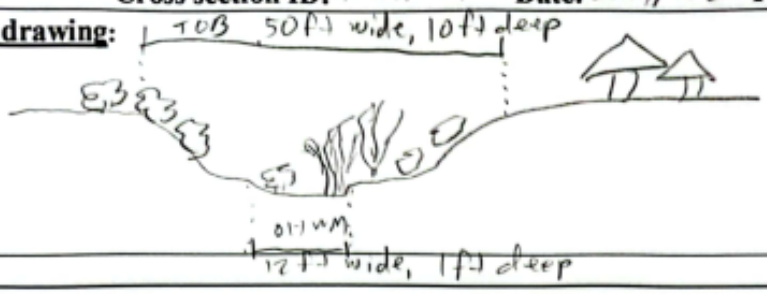


Procedure for identifying and characterizing the floodplain units to assist in identifying the OHWM:

1. Walk the channel and floodplain within the study area to get an impression of the geomorphology and vegetation present at the site.
2. Select a representative cross section across the channel. Draw the cross section and label the floodplain units.
3. Determine a point on the cross section that is characteristic of one of the hydrogeomorphic floodplain units.
   a) Record the floodplain unit and GPS position.
   b) Describe the sediment texture (using the Wentworth class size) and the vegetation characteristics of the floodplain unit.
   c) Identify any indicators present at the location.
4. Repeat for other points in different hydrogeomorphic floodplain units across the cross section.
5. Identify the OHWM and record the indicators. Record the OHWM position via:
   - ☐ Mapping on aerial photograph
   - ☐ Digitized on computer
   - ☒ GPS
   - ☐ Other:

Project ID: 22-13573 **Cross section ID:** ED OH-01 **Date:** 2/6/23 **Time:** 1:10pm

Cross section drawing:



OHWM

GPS point: 33.41262, -118.42669

Indicators:

- [1] Change in average sediment texture
- [2] Change in vegetation species
- [3] Change in vegetation cover
- [4] Break in bank slope
- [ ] Other: _____
- [ ] Other: _____

Comments:
1- Sand in OHWM, fine sand/silt above OHWM
2- BACSAL in OHWM, upland shrubs outside OHWM
3- ↑ in veg. cover outside OHWM
4- observed break in slope

Floodplain unit: [x] Low-Flow Channel [ ] Active Floodplain [ ] Low Terrace

GPS point: Same as OHWM

Characteristics of the floodplain unit:
Average sediment texture: Sand
Total veg cover: 30 % Tree: 0 % Shrub: 20 % Herb: 10 %
Community successional stage:

- [ ] NA
- [x] Mid (herbaceous, shrubs, saplings)
- [ ] Early (herbaceous & seedlings)
- [ ] Late (herbaceous, shrubs, mature trees)

Indicators:

- [ ] Mudcracks
- [ ] Ripples
- [x] Drift and/or debris
- [x] Presence of bed and bank
- [ ] Benches
- [ ] Soil development
- [ ] Surface relief
- [ ] Other: _____
- [ ] Other: _____
- [ ] Other: _____

Comments:

Arid West Ephemeral and Intermittent Streams OHWM Datasheet

Project: SCWA Sand Canyon
Project Number: 22-13523
Stream: Intermittent Drainage 01
Investigator(s): K. Green

Date: 8/21/2023 **Time:** 3:00pm
Town: Santa Clarita **State:** CA
Photo begin file#: **Photo end file#:**

Y ☐ / N ☒ Do normal circumstances exist on the site?

Y ☒ / N ☐ Is the site significantly disturbed?

Location Details: South of Hwy 14 adjacent to SCR.

Projection: NAD83 **Datum:** NAD83
Coordinates: 34.422028, -118429574

Potential anthropogenic influences on the channel system:
Anthropogenic water sources (e.g. residential/commercial/agricultural runoff), pollution (e.g. trash, fluids).

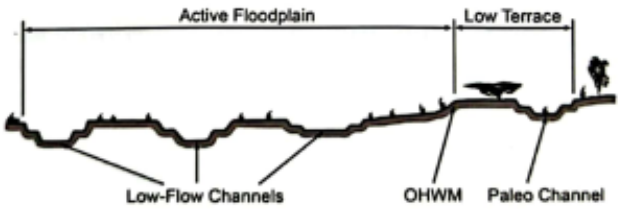
Brief site description:
Intermittent drainage feature that flows N-S under Hwy 14 into SCR. Water largely sourced from anthropogenic sources as described above. Large amount of sediment deposition in drainage & trash as well.

Checklist of resources (if available):

- ☒ Aerial photography
  Dates: 2023
- ☒ Topographic maps
- ☐ Geologic maps
- ☐ Vegetation maps
- ☐ Soils maps
- ☐ Rainfall/precipitation maps
- ☐ Existing delineation(s) for site
- ☒ Global positioning system (GPS)
- ☐ Other studies

- ☐ Stream gage data
  Gage number:
  Period of record:
  - ☐ History of recent effective discharges
  - ☐ Results of flood frequency analysis
  - ☐ Most recent shift-adjusted rating
  - ☐ Gage heights for 2-, 5-, 10-, and 25-year events and the most recent event exceeding a 5-year event

Hydrogeomorphic Floodplain Units

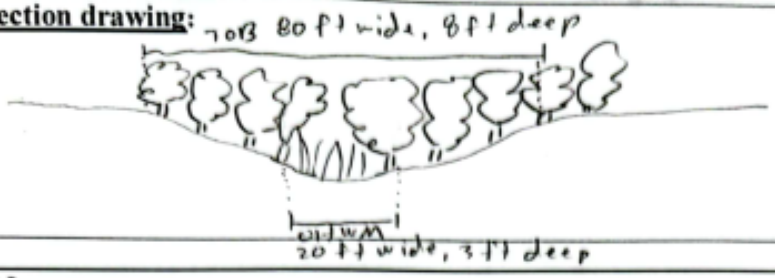


Procedure for identifying and characterizing the floodplain units to assist in identifying the OHWM:

1. Walk the channel and floodplain within the study area to get an impression of the geomorphology and vegetation present at the site.
2. Select a representative cross section across the channel. Draw the cross section and label the floodplain units.
3. Determine a point on the cross section that is characteristic of one of the hydrogeomorphic floodplain units.
   a) Record the floodplain unit and GPS position.
   b) Describe the sediment texture (using the Wentworth class size) and the vegetation characteristics of the floodplain unit.
   c) Identify any indicators present at the location.
4. Repeat for other points in different hydrogeomorphic floodplain units across the cross section.
5. Identify the OHWM and record the indicators. Record the OHWM position via:
   - ☐ Mapping on aerial photograph
   - ☐ Digitized on computer
   - ☒ GPS
   - ☐ Other:

Project ID: 22-13523 **Cross section ID:** JD 014-01 **Date:** 8/4/2023 **Time:** 8:00pm

Cross section drawing:



OHWM

GPS point: 34.422028, -118.429574

Indicators:

- [ ] Change in average sediment texture
- [1] Change in vegetation species
- [ ] Change in vegetation cover
- [2] Break in bank slope
- [ ] Other: _____
- [ ] Other: _____

Comments:

1 - Cattails (Typha spp.) & tall flatsedge (Cyperus eragrostis) occur in OHWM, & do not occur outside OHWM
2 - evident break in slope.

Floodplain unit: [X] Low-Flow Channel [ ] Active Floodplain [ ] Low Terrace

GPS point: same as OHWM

Characteristics of the floodplain unit:

Average sediment texture: loam
Total veg cover: 95 % Tree: 50 % Shrub: 0 % Herb: 45 %
Community successional stage:

- [ ] NA
- [ ] Early (herbaceous & seedlings)
- [ ] Mid (herbaceous, shrubs, saplings)
- [X] Late (herbaceous, shrubs, mature trees)

Indicators:

- [ ] Mudcracks
- [ ] Ripples
- [X] Drift and/or debris
- [X] Presence of bed and bank
- [ ] Benches
- [X] Soil development
- [ ] Surface relief
- [ ] Other: _____
- [ ] Other: _____
- [ ] Other: _____

Comments:

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: 22-13573 Sand Canyon City/County: Santa Clarita/LA Co. Sampling Date: 8/21/2023
Applicant/Owner: SCUWA State: CA Sampling Point: SP01
Investigator(s): K. Cearn Section, Township, Range: S23, T04N, R15W
Landform (hillslope, terrace, etc.): Vegetated bar in active floodplain of SCR Local relief (concave, convex, none): Convex Slope (%): 1
Subregion (LRR): C- Mediterranean California Lat: 34.422063 Long: -118.474130 Datum: NAD84
Soil Map Unit Name: Riverwash NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks.)
Are Vegetation N, Soil N, or Hydrology N significantly disturbed? Are "Normal Circumstances" present? Yes X No ____
Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes X	No ____	Is the Sampled Area within a Wetland? Yes ____ No X
Hydric Soil Present?	Yes ____	No X	
Wetland Hydrology Present?	Yes ____	No X	

Remarks: Hydrophytic veg. & hydrology met, but no evidence of hydric soils or problematic hydric soils. Therefore, wetland not present.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species?	Indicator Status
Tree Stratum (Plot size: 30x30)			
1. N/A			
2.			
3.			
4.			
	0 = Total Cover		
Sapling/Shrub Stratum (Plot size: 15x15)			
1. Baccharis salicifolia	5	Y	FACW
2. Lepidospartum sq. nanum	1	N	FACU
3.			
4.			
5.			
	6 = Total Cover		
Herb Stratum (Plot size: 5x5)			
1. Bromus rubens	1	N	UPL
2. Melilotus alba	1	N	UPL
3.			
4.			
5.			
6.			
7.			
8.			
	2 = Total Cover		
Woody Vine Stratum (Plot size: 15x15)			
1. N/A			
2.			
	0 = Total Cover		

% Bare Ground in Herb Stratum ____ % Cover of Biotic Crust ____

Dominance Test worksheet:
Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)
Total Number of Dominant Species Across All Strata: 1 (B)
Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species ____	x 1 = ____
FACW species ____	x 2 = ____
FAC species ____	x 3 = ____
FACU species ____	x 4 = ____
UPL species ____	x 5 = ____
Column Totals: ____ (A)	____ (B)

Prevalence Index = B/A = ____

Hydrophytic Vegetation Indicators:
X Dominance Test is >50%
__ Prevalence Index is ≤3.0[1]
__ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
__ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes X No ____

Remarks: One mulefat individual & one scale broom individual occur in sample radius. Mulefat is dominant, therefore qualifying for hydric veg.

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WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: 22-13573 Sand Canyon City/County: Santa Clarita/LA Co. Sampling Date: 8/21/2023
Applicant/Owner: SCUWA State: CA Sampling Point: SP01
Investigator(s): K. Cearn Section, Township, Range: S23, T04N, R15W
Landform (hillslope, terrace, etc.): Vegetated bar in active floodplain of SCR Local relief (concave, convex, none): Convex Slope (%): 1
Subregion (LRR): C- Mediterranean California Lat: 34.422063 Long: -118.474130 Datum: NAD84
Soil Map Unit Name: Riverwash NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks.)
Are Vegetation N, Soil N, or Hydrology N significantly disturbed? Are "Normal Circumstances" present? Yes X No ____
Are Vegetation ____, Soil N, or Hydrology N naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes X	No ____	Is the Sampled Area within a Wetland? Yes ____ No X
Hydric Soil Present?	Yes ____	No X	
Wetland Hydrology Present?	Yes ____	No X	

Remarks: Hydrophytic veg. & hydrology met, but no evidence of hydric soils or problematic hydric soils. Therefore, wetland not present.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species?	Indicator Status
Tree Stratum (Plot size: 30x30)			
1. N/A			
2.			
3.			
4.			
	0 = Total Cover		
Sapling/Shrub Stratum (Plot size: 15x15)			
1. Baccharis salicifolia	5	Y	FACW
2. Lepidospartum sq. nanatum	1	N	FAIU
3.			
4.			
5.			
	6 = Total Cover		
Herb Stratum (Plot size: 5x5)			
1. Bromus rubens	1	N	UPL
2. Melilotus alba	1	N	UPL
3.			
4.			
5.			
6.			
7.			
8.			
	2 = Total Cover		
Woody Vine Stratum (Plot size: 15x15)			
1. N/A			
2.			
	0 = Total Cover		

% Bare Ground in Herb Stratum ____ % Cover of Biotic Crust ____

Dominance Test worksheet:
Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)
Total Number of Dominant Species Across All Strata: 1 (B)
Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species ____	x 1 = ____
FACW species ____	x 2 = ____
FAC species ____	x 3 = ____
FACU species ____	x 4 = ____
UPL species ____	x 5 = ____
Column Totals: ____ (A)	____ (B)

Prevalence Index = B/A = ____

Hydrophytic Vegetation Indicators:
X Dominance Test is >50%
__ Prevalence Index is ≤3.0[1]
__ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
__ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes X No ____

Remarks: One mulefat individual & one scale broom individual occur in sample radius. Mulefat is dominant, therefore qualifying for hydric veg.

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SOIL Sampling Point: SP01

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-4	10YR3/2	100					Sandy loam	Herbaceous roots present
4-12	10YR5/3	100					Sand	Herbaceous roots absent

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) (LRR C)
- ___ 1 cm Muck (A9) (LRR D)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) (LRR C)
- ___ 2 cm Muck (A10) (LRR B)
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (TF2)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):
Type: Boulders
Depth (inches): 12

Hydric Soil Present? Yes ___ No X

Remarks: No evidence of problematic sandy soils or hydric soils.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1) (Nonriverine)
- ___ Sediment Deposits (B2) (Nonriverine)
- ___ Drift Deposits (B3) (Nonriverine)
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Biotic Crust (B12)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water Marks (B1) (Riverine)
- ___ Sediment Deposits (B2) (Riverine)
- X Drift Deposits (B3) (Riverine)
- X Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ___ No X Depth (inches): ___
Water Table Present? Yes ___ No X Depth (inches): ___
Saturation Present? (includes capillary fringe) Yes ___ No X Depth (inches): ___

Wetland Hydrology Present? Yes X No ___

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: Drift deposits (twigs & branches) & drainage patterns (directional flow of scr are present).

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WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: 22-13573 Sand Canyon City/County: Santa Clarita/LA Co. Sampling Date: 8/14/2023
Applicant/Owner: SCVWA State: CA Sampling Point: SP02
Investigator(s): K. Leon Section, Township, Range: S23, T04N, R15W
Landform (hillslope, terrace, etc.): Willow Int. Drain D1 Local relief (concave, convex, none): concave Slope (%): 5
Subregion (LRR): C- Mediterranean California Lat: 34.421946 Long: -118.429527 Datum: NAD84
Soil Map Unit Name: Hanford Sandy Loam, 2-9% slopes NWI classification: None
Are climatic / hydrologic conditions on the site typical for this time of year? Yes N No X (If no, explain in Remarks.)
Are Vegetation N, Soil N, or Hydrology Y significantly disturbed? Are "Normal Circumstances" present? Yes ____ No T
Are Vegetation N, Soil N, or Hydrology N naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes X No ____
Hydric Soil Present? Yes X No ____
Wetland Hydrology Present? Yes X No ____
Is the Sampled Area within a Wetland? Yes X No ____

Remarks: This water feature (intermittent Drainage D1) is largely fed by anthropogenic sources (e.g. residential runoff), & hydrology is therefore not natural & sig. disturbed

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30x30)	Absolute % Cover	Dominant Species?	Indicator Status
1. Salix laevigata	5	N	FACW
2. Washingtonia robusta	15	N	FACW
3. Populus fremontii	55	Y	FACW
4. Ficus carica	20	Y	FAC
	95	= Total Cover	
Sapling/Shrub Stratum (Plot size: 5x15)			
1. Ficus carica	1	N	FAC ~~FACW~~
2. Salix laevigata	2	N	FACW
3. Baccharis salicifolia	1	N	FAC
4.			
5.			
	4	= Total Cover	
Herb Stratum (Plot size: 5x5)			
1. Typha spp.	40	Y	OBL
2. Juncus effusus	10	Y	FACW
3.			
4.			
5.			
6.			
7.			
8.			
	50	= Total Cover	
Woody Vine Stratum (Plot size: 15x15)			
1. N/A			
2.			
	0	= Total Cover	

% Bare Ground in Herb Stratum 10 % Cover of Biotic Crust 0

Dominance Test worksheet:
Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)
Total Number of Dominant Species Across All Strata: 4 (B)
Percent of Dominant Species That Are OBL, FACW, or FAC: 75 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species ____	x 1 = ____
FACW species ____	x 2 = ____
FAC species ____	x 3 = ____
FACU species ____	x 4 = ____
UPL species ____	x 5 = ____
Column Totals: ____ (A)	____ (B)

Prevalence Index = B/A = ____

Hydrophytic Vegetation Indicators:
X Dominance Test is >50%
__ Prevalence Index is ≤3.0[1]
__ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
__ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes X No ____

Remarks: Hydrophytic dominant veg. includes ~~SP~~ POPFR, Typha spp., & JUNEFF.

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SOIL Sampling Point: SP02

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-20	10YR 2/1	100					silty loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- __ Histosol (A1)
- __ Histic Epipedon (A2)
- __ Black Histic (A3)
- __ Hydrogen Sulfide (A4)
- __ Stratified Layers (A5) (LRR C)
- __ 1 cm Muck (A9) (LRR D)
- __ Depleted Below Dark Surface (A11)
- __ Thick Dark Surface (A12)
- __ Sandy Mucky Mineral (S1)
- __ Sandy Gleyed Matrix (S4)
- __ Sandy Redox (S5)
- __ Stripped Matrix (S6)
- __ Loamy Mucky Mineral (F1)
- __ Loamy Gleyed Matrix (F2)
- __ Depleted Matrix (F3)
- __ Redox Dark Surface (F6)
- __ Depleted Dark Surface (F7)
- __ Redox Depressions (F8)
- __ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- __ 1 cm Muck (A9) (LRR C)
- __ 2 cm Muck (A10) (LRR B)
- __ Reduced Vertic (F18)
- __ Red Parent Material (TF2)
- X Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):
Type: N/A
Depth (inches): N/A

Hydric Soil Present? Yes X No ____

Remarks: No evidence of hydric soils. However, SP02 is located in an area dominated by cattails (Typha spp.), an obligate wetland plant species. Therefore, this area is characterized as a recently formed wetland despite lack of hydric soil indicators

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- X Surface Water (A1)
- X High Water Table (A2)
- X Saturation (A3)
- __ Water Marks (B1) (Nonriverine)
- __ Sediment Deposits (B2) (Nonriverine)
- __ Drift Deposits (B3) (Nonriverine)
- __ Surface Soil Cracks (B6)
- __ Inundation Visible on Aerial Imagery (B7)
- __ Water-Stained Leaves (B9)
- __ Salt Crust (B11)
- __ Biotic Crust (B12)
- __ Aquatic Invertebrates (B13)
- __ Hydrogen Sulfide Odor (C1)
- __ Oxidized Rhizospheres along Living Roots (C3)
- __ Presence of Reduced Iron (C4)
- __ Recent Iron Reduction in Tilled Soils (C6)
- __ Thin Muck Surface (C7)
- __ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- __ Water Marks (B1) (Riverine)
- __ Sediment Deposits (B2) (Riverine)
- __ Drift Deposits (B3) (Riverine)
- X Drainage Patterns (B10)
- __ Season Water Table (C2)
- __ sh Burrows (C8)
- __ tion Visible on Aerial Imagery (C9)
- __ v Aquitard (D3)
- __ eutral Test (D5)

Field Observations:

Surface Water Present? Yes ____ No X Depth (inches): 0 in
Water Table Present? Yes X No ____ Depth (inches): 5 in
Saturation Present? (includes capillary fringe) Yes X No ____ Depth (inches): 3 in

Wetland Hydrology sent? Yes Y No ____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: Surface water, high water table, & saturation present. Therefore wetland hydrology present.

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Trash (e.g., bottles, plastic) observed at 15 inches in depth, and culvert outlet is buried up to 6 feet in sediment (only 2-3 feet of daylight), indicating large amount of sediment deposition on a yearly basis.

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: 22-13625 Sand Canyon City/County: Santa Clarita/LA Co. Sampling Date: 8/21/2023
Applicant/Owner: SCVWA State: CA Sampling Point: SP03
Investigator(s): L. Carson Section, Township, Range: S23, T04N, R15W
Landform (hillslope, terrace, etc.): ~~Hillslope~~ Flat plain Local relief (concave, convex, none): Concave Slope (%): 1
Subregion (LRR): C- Mediterranean California Lat: 34.412151 Long: -118.477384 Datum: NAD84
Soil Map Unit Name: Hanford Sandy Loam, 2-9% Slopes NWI classification: None
Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ____ (If no, explain in Remarks.)
Are Vegetation N, Soil N, or Hydrology N significantly disturbed? Are "Normal Circumstances" present? Yes Y No ____
Are Vegetation N, Soil N, or Hydrology N naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ____	No N	Is the Sampled Area within a Wetland? Yes ____ No X
Hydric Soil Present?	Yes ____	No N	
Wetland Hydrology Present?	Yes ____	No N	

Remarks: No evidence of wetlands (hydrophytic veg, hydric soils, wetland hydrology). Area sampled under canopy of POPFRE, w/ upland understory

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30x30)	Absolute % Cover	Dominant Species?	Indicator Status
1. Populus fremontii	55	Y	FACW
2.			
3.			
4.			
	55	= Total Cover	
Sapling/Shrub Stratum (Plot size: 15x15)			
1. N/A		Y	FACW
2.			
3.			
4.			
5.			
	0	= Total Cover	
Herb Stratum (Plot size: 5x5)			
1. Bromus diandrus	60	Y	UPL
2. Silybum marianum	20	Y	UPL
3.			
4.			
5.			
6.			
7.			
8.			
	80	= Total Cover	
Woody Vine Stratum (Plot size: 15x15)			
1. N/A			
2.			
	0	= Total Cover	

% Bare Ground in Herb Stratum 5 % Cover of Biotic Crust 0

Dominance Test worksheet:
Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)
Total Number of Dominant Species Across All Strata: 3 (B)
Percent of Dominant Species That Are OBL, FACW, or FAC: 33 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species ____	x 1 = ____
FACW species ____	x 2 = ____
FAC species ____	x 3 = ____
FACU species ____	x 4 = ____
UPL species ____	x 5 = ____
Column Totals: ____ (A)	____ (B)

Prevalence Index = B/A = ____

Hydrophytic Vegetation Indicators:
__ Dominance Test is >50%
__ Prevalence Index is ≤3.0[1]
__ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
__ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes ____ No X

Remarks:

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SOIL

Sampling Point: SP03

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-12	10YR 3/3	100					~~Sandy~~ Sandy Loam	
12-20	10YR 4/3	100					Sandy loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- __ Histosol (A1)
- __ Histic Epipedon (A2)
- __ Black Histic (A3)
- __ Hydrogen Sulfide (A4)
- __ Stratified Layers (A5) (LRR C)
- __ 1 cm Muck (A9) (LRR D)
- __ Depleted Below Dark Surface (A11)
- __ Thick Dark Surface (A12)
- __ Sandy Mucky Mineral (S1)
- __ Sandy Gleyed Matrix (S4)
- __ Sandy Redox (S5)
- __ Stripped Matrix (S6)
- __ Loamy Mucky Mineral (F1)
- __ Loamy Gleyed Matrix (F2)
- __ Depleted Matrix (F3)
- __ Redox Dark Surface (F6)
- __ Depleted Dark Surface (F7)
- __ Redox Depressions (F8)
- __ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- __ 1 cm Muck (A9) (LRR C)
- __ 2 cm Muck (A10) (LRR B)
- __ Reduced Vertic (F18)
- __ Red Parent Material (TF2)
- __ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: N/A

Depth (inches): N/A

Hydric Soil Present? Yes ____ No X

Remarks: No evidence of hydric soils

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- __ Surface Water (A1)
- __ High Water Table (A2)
- __ Saturation (A3)
- __ Water Marks (B1) (Nonriverine)
- __ Sediment Deposits (B2) (Nonriverine)
- __ Drift Deposits (B3) (Nonriverine)
- __ Surface Soil Cracks (B6)
- __ Inundation Visible on Aerial Imagery (B7)
- __ Water-Stained Leaves (B9)
- __ Salt Crust (B11)
- __ Biotic Crust (B12)
- __ Aquatic Invertebrates (B13)
- __ Hydrogen Sulfide Odor (C1)
- __ Oxidized Rhizospheres along Living Roots (C3)
- __ Presence of Reduced Iron (C4)
- __ Recent Iron Reduction in Tilled Soils (C6)
- __ Thin Muck Surface (C7)
- __ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- __ Water Marks (B1) (Riverine)
- __ Sediment Deposits (B2) (Riverine)
- __ Drift Deposits (B3) (Riverine)
- __ Drainage Patterns (B10)
- __ Dry-Season Water Table (C2)
- __ Crayfish Burrows (C8)
- __ Saturation Visible on Aerial Imagery (C9)
- __ Shallow Aquitard (D3)
- __ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ____ No X Depth (inches): ____

Water Table Present? Yes ____ No X Depth (inches): ____

Saturation Present? (includes capillary fringe) Yes ____ No X Depth (inches): ____

Wetland Hydrology Present? Yes ____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: No evidence of wetland hydrology.

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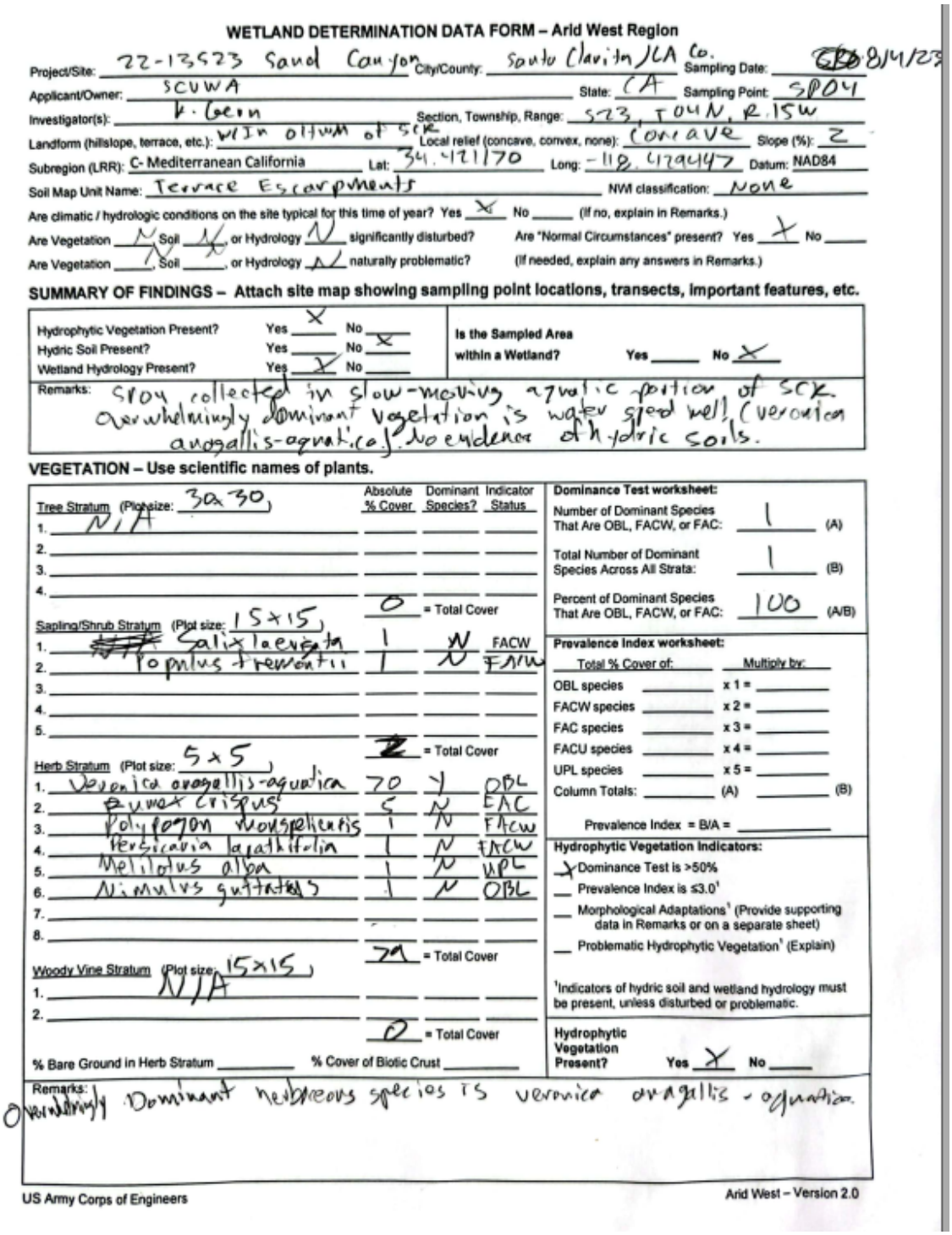

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: 22-13523 Sand Canyon City/County: Santa Clarita/LA Co. Sampling Date: 8/14/23
Applicant/Owner: SCWA State: CA Sampling Point: SP04
Investigator(s): K. Gerin Section, Township, Range: S23, T04N, R15W
Landform (hillslope, terrace, etc.): WIN alluvium of SCK Local relief (concave, convex, none): Concave Slope (%): 2
Subregion (LRR): C- Mediterranean California Lat: 34.421170 Long: -118.629447 Datum: NAD84
Soil Map Unit Name: Terrace Escarpments NWI classification: None
Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No ___ (If no, explain in Remarks.)
Are Vegetation N, Soil N, or Hydrology N significantly disturbed? Are "Normal Circumstances" present? Yes X No ___
Are Vegetation ___, Soil ___, or Hydrology ___ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes X	No ___	Is the Sampled Area within a Wetland? Yes ___ No X
Hydric Soil Present?	Yes ___	No X	
Wetland Hydrology Present?	Yes X	No ___	

Remarks: SP04 collected in slow-moving aquatic portion of SCK. Overwhelmingly dominant vegetation is water speedwell (Veronica anagallis-aquatica). No evidence of hydric soils.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species?	Indicator Status
Tree Stratum (Plot size: 30x30)			
1. N/A			
2.			
3.			
4.			
	0 = Total Cover		
Sapling/Shrub Stratum (Plot size: 15x15)			
1. ~~Salix~~ Salix laevigata	1	N	FACW
2. Populus fremontii	1	N	FACW
3.			
4.			
5.			
	2 = Total Cover		
Herb Stratum (Plot size: 5x5)			
1. Veronica anagallis-aquatica	70	Y	OBL
2. Rumex crispus	5	N	FAC
3. Polygonum monspeliensis	1	N	FACW
4. Hirschfeldia incana	1	N	FACW
5. Melilotus alba	1	N	UPL
6. Nasturtium officinale	1	N	OBL
7.			
8.			
	79 = Total Cover		
Woody Vine Stratum (Plot size: 15x15)			
1. N/A			
2.			
	0 = Total Cover		

% Bare Ground in Herb Stratum ___ % Cover of Biotic Crust ___

Dominance Test worksheet:
Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)
Total Number of Dominant Species Across All Strata: 1 (B)
Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species ___	x 1 = ___
FACW species ___	x 2 = ___
FAC species ___	x 3 = ___
FACU species ___	x 4 = ___
UPL species ___	x 5 = ___
Column Totals: ___ (A)	___ (B)

Prevalence Index = B/A = ___

Hydrophytic Vegetation Indicators:
X Dominance Test is >50%
___ Prevalence Index is ≤3.0[1]
___ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes X No ___

Remarks: Overwhelmingly dominant herbaceous species is Veronica anagallis-aquatica.

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SOIL Sampling Point: SP04

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-1	10YR3/1	100					Loamy Sand	
1-20	10YR3/3	100					Sand	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) (LRR C)
- ___ 1 cm Muck (A9) (LRR D)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) (LRR C)
- ___ 2 cm Muck (A10) (LRR B)
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (TF2)
- ? Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):
Type: N/A
Depth (inches): N/A

Hydric Soil Present? Yes ? No ___

Remarks: No evidence of hydric soils. Only sandy soils w/ surface water present. Potential recently-formed wetland? ask robin

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- X Surface Water (A1)
- X High Water Table (A2)
- X Saturation (A3)
- ___ Water Marks (B1) (Nonriverine)
- ___ Sediment Deposits (B2) (Nonriverine)
- ___ Drift Deposits (B3) (Nonriverine)
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Biotic Crust (B12)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water Marks (B1) (Riverine)
- ___ Sediment Deposits (B2) (Riverine)
- ___ Drift Deposits (B3) (Riverine)
- X Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes X No ___ Depth (inches): 0
Water Table Present? Yes X No ___ Depth (inches): 2
Saturation Present? (includes capillary fringe) Yes X No ___ Depth (inches): 0

Wetland Hydrology Present? Yes Y No ___

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: surface water, high water table, & saturation present. Therefore, wetland hydrology present.

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Appendix D

Cultural Resources Technical Report

CONFIDENTIAL APPENDIX

**To protect sensitive information about the location and nature of cultural resources, this appendix is not included in the public draft of this document.

Appendix E

Noise Modeling Output

Roadway Construction Noise Model (RCNM),Version 1.1

Report date: 01/16/2024
Case Description: Sand Canyon Sewer Relocation

**** Receptor #1 ****

Description	Land Use	Baselines (dBA) Daytime	Evening	Night
Drainage, Utilities, and Sub-Grade	Residential	60.0	55.0	50.0

Equipment

Description	Impact Device	Usage (%)	Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Backhoe	No	40	80.0		50.0	0.0
Scraper	No	40	85.0		50.0	0.0
Tractor	No	40	84.0		50.0	0.0
Grader	No	40	85.0		50.0	0.0
Compactor (ground)	No	20		83.2	50.0	0.0

Results

Noise Limits (dBA)

Noise Limit Exceedance (dBA)

Calculated (dBA) Day Evening

Equipment	Day Lmax	Day Leq	Evening Lmax	Evening Leq	Night Lmax	Night Leq	Day Lmax	Day Leq	Evening Lmax	Evening Leq	Night Lmax	Night Leq
Backhoe	80.0	76.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Scraper	85.0	81.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Tractor	84.0	80.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Grader	85.0	81.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Compactor (ground)	83.2	76.2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Total	85.0	86.4	N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A	N/A	N/A	

Roadway Construction Noise Model (RCNM),Version 1.1

Report date: 01/16/2024
Case Description: Sand Canyon Sewer Relocation

**** Receptor #1 ****

Description	Land Use	Baselines (dBA) Daytime	Evening	Night
Grading and Excavation	Residential	60.0	55.0	50.0

Equipment

Description	Impact Device	Usage (%)	Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Excavator	No	40	85.0		50.0	0.0
Tractor	No	40	84.0		50.0	0.0
Grader	No	40	85.0		50.0	0.0
Roller	No	20	85.0		50.0	0.0
Backhoe	No	40	80.0		50.0	0.0

Results

Noise Limits (dBA)

Noise Limit Exceedance (dBA)

Equipment	Calculated (dBA) Day Lmax	Day Leq	Evening Lmax	Evening Leq	Night Lmax	Night Leq	Day Lmax	Day Leq	Evening Lmax	Evening Leq	Night Lmax	Night Leq
Excavator	85.0	81.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Tractor	84.0	80.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Grader	85.0	81.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Roller	85.0	78.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Backhoe	80.0	76.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Total	85.0	86.6	N/A	N/A	N/A	N/A	N/A	
N/A	N/A	N/A	N/A	N/A	N/A	N/A		

Roadway Construction Noise Model (RCNM),Version 1.1

Report date: 01/16/2024
Case Description: Sand Canyon Sewer Relocation

**** Receptor #1 ****

Description	Land Use	Baselines (dBA) Daytime	Evening	Night
Grubbing and Land Clearing	Residential	60.0	55.0	50.0

Description	Impact Device	Usage (%)	Equipment Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Tractor	No	40	84.0		50.0	0.0
Excavator	No	40	85.0		50.0	0.0

Results

Noise Limits (dBA)

Noise Limit Exceedance (dBA)

Equipment	Calculated (dBA) Day Lmax	Day Leq	Evening Lmax	Evening Leq	Night Lmax	Night Leq	Day Lmax	Day Leq	Evening Lmax	Evening Leq	Night Lmax	Night Leq
Tractor	84.0	80.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Excavator	85.0	81.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total	85.0	83.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Roadway Construction Noise Model (RCNM),Version 1.1

Report date: 01/16/2024
Case Description: Sand Canyon Sewer Relocation

**** Receptor #1 ****

Description	Land Use	Baselines (dBA) Daytime	Evening	Night
Paving	Residential	60.0	55.0	50.0

Description	Impact Device	Usage (%)	Equipment Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Roller	No	20	85.0		50.0	0.0
Paver	No	50	85.0		50.0	0.0
Tractor	No	40	84.0		50.0	0.0

Results

Noise Limits (dBA)

Noise Limit Exceedance (dBA)

Equipment	Day Calculated (dBA) Lmax	Day Calculated (dBA) Leq	Evening Lmax	Evening Leq	Night Lmax	Night Leq	Day Lmax	Day Leq	Evening Lmax	Evening Leq	Night Lmax	Night Leq
Roller	85.0	78.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Paver	85.0	82.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Tractor	84.0	80.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total	85.0	85.1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A