

Public Draft

VALENCIA WATER RECLAMATION PLANT MIDDLE SECTION RETAINING WALL GROUND IMPROVEMENT PROJECT

Draft Environmental Impact Report

Prepared for
Santa Clarita Valley Sanitation District

July 2024



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1955 Workman Mill Road
Whittier, CA 90601

1010 E. Union Street
Suite 203
Pasadena, CA 91106
626.204.6170
esassoc.com



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Acronyms and Other Abbreviations

Abbreviation	Definition
AB	Assembly Bill
ACT	advanced clean trucks
AGR	Agricultural Supply
amsl	above mean sea level
AQMP	air quality management plan
AR4	Fourth Assessment Report
ASCE	American Society of Civil Engineers
ATCM	Airborne Toxic Control Measure
BACT	best available control technology
BAU	business-as-usual
BCA	Biological Constraints Analysis
BMP	best management practices
CAA	Clean Air Act
CAAQS	California Ambient Air Quality Standards
CAFE	Corporate Average Fuel Economy
Cal/OSHA	California Division of Occupational Safety and Health
CalEPA	California Environmental Protection Agency
CAL FIRE	California Department of Forestry and Fire Protection
CAP	climate action plan
CAPCOA	California Air Pollution Control Officers Association
CARB	California Air Resources Board
CAT	California Climate Action Team
CBC	California Building Code
CBSC	California Building Standards Commission
CCAA	California Clean Air Act
CCAP	Community Climate Action Plan
CCCC	California Climate Change Center
CCR	California Code of Regulations
CCUS	carbon capture, utilization, and storage
CDF	California Department of Finance
CDFA	California Department of Food and Agriculture

Abbreviation	Definition
CDFW	California Department of Fish and Wildlife
CDHS	California Department of Health Services
CDR	carbon dioxide removal
CDSM	cement deep soil mixing
CEC	California Energy Commission
CEQA	California Environmental Quality Act
CESA	California Endangered Species Act
CFR	Code of Federal Regulations
CGP	Construction General Permit
CGS	California Geological Survey
CH ₄	methane
CHL	California Historic Landmark
CHP	California Highway Patrol
CHRIS	California Historical Resources Information System
CHSC	California Health and Safety Code
CLI	California Legislative Information
CNDDB	California Natural Diversity Database
CNEL	Community Noise Equivalent Level
CNPS	California Native Plant Society
CNRA	California Natural Resources Agency
CO	carbon monoxide
CO ₂	carbon dioxide
CO ₂ e	equivalent mass of carbon dioxide
COLE	coefficient of linear extensibility
CPUC	California Public Utilities Commission
CRPR	California Rare Plant Rank
CUPA	Certified Unified Program Agency
CWA	Clean Water Act
cy	cubic yard
dB	decibel
dBA	A-weighted decibel
DBH	diameter at breast height
DHS	Department of Health Services
DOT	Department of Transportation

Abbreviation	Definition
DPM	diesel particulate matter
DTSC	Department of Toxic Substances Control
EFZ	Earthquake Fault Zone
EIR	environmental impact report
EISA	Energy Independence and Security Act
EMFAC	CARB's Emission FACtors model
ESA	Environmental Science Associates
FBET	Filter Backwash Equalization Tank
FEMA	Federal Emergency Management Agency
FESA	federal Endangered Species Act
FHSZ	Fire Hazard Severity Zone
FHWA	Federal Highway Administration
FIRM	Flood Insurance Rate Mapping
FRSH	Freshwater Replenishment
FTA	Federal Transit Administration
FTBMI	Fernandeño Tataviam Band of Mission Indians
GHG	greenhouse gas
GRP	General Reporting Protocol
GSP	groundwater sustainability plan
GWP	global warming potential
GWR	Groundwater Recharge
H ₂ S	hydrogen sulfide
HAP	hazardous air pollutants
HFC	hydrofluorocarbons
HMBP	hazardous materials business plan
HPO	Historic Preservation Ordinance
HQTA	high-quality transit areas
HSC	Health and Safety Code
I-	Interstate
IBC	International Building Code
IND	Industrial Service Supply
IPCC	Intergovernmental Panel on Climate Change
LACFD	Los Angeles County Fire Department
LACM	History Museum of Los Angeles County

Abbreviation	Definition
LACSO	Los Angeles County Sustainability Office
LAWA	Los Angeles World Airports
LCD	liquid crystal display
LDV	light-duty vehicles
LF	linear feet
LOS	level of service
LRA	Local Responsibility Area
LST	Localized significance thresholds
MBTA	Migratory Bird Treaty Act
MCA	Medieval Climatic Anomaly
MLD	most likely descendant
MMTCO ₂ e	million metric tons of carbon dioxide equivalent
MSE	mechanically stabilized earth
MU	management unit
MUN	Municipal and Domestic Supply
MW	magnitude
N ₂ O	nitrous oxide
NAAQS	National Ambient Air Quality Standards
NAHC	Native American Heritage Commission
NDIR	Non-Dispersive Infrared Photometry
NF ₃	nitrogen trifluoride
NHTSA	National Highway Traffic Safety Administration
NMA	Neighborhood Mobility Areas
NO	nitric oxide
NO ₂	nitrogen dioxide
NOD	notice of determination
NOP	notice of preparation
NO _x	nitrogen oxides
NPDES	National Pollutant Discharge and Elimination System
NRCS	Natural Resource Conservation Service
NWL	Natural and Working Lands
O ₃	ozone
OAEOP	Operational Area Emergency Operations Plan
OEHHA	Office of Environmental Health Hazard Assessment

Abbreviation	Definition
OHP	Office of Historic Preservation
OPR	Office of Planning and Research
OSHA	Occupational Safety and Health Administration
Pb	lead
PCE	primary constituent elements
PFC	perfluorocarbons
PGA	Priority Growth Areas
PISD	Pacific Institute for Studies in Development
PM	particulate matter
PM10	particulate matter 10 micrometers and smaller
PM2.5	particulate matter 2.5 micrometers and smaller
ppb	part per billion
ppm	part per million
PPV	peak particle velocity
PRC	California Public Resources Code
PROC	Industrial Process Water Supply
PVC	polyvinyl chloride
Qa	Quaternary Alluvium
Qog	Older Alluvium
QTs	Saugus Formation
RARE	Preservation of Rare and Endangered Species
RCRA	Resource Conservation and Recovery Act of 1976
RFS	Renewable Fuel Standard
RMS	root mean square
RTP/SCS	Regional Transportation Plan/Sustainable Communities Strategy
RWQCB	Regional Water Quality Control Board
SAA	Stream or Lake Alteration Agreement
SAFE	Safer Affordable Fuel-Efficient
SAR	IPCC's Second Assessment Report
SARA	Superfund Amendments and Reauthorization Act
SB	Senate Bill
SCAG	Southern California Association of Governments
SCAQMD	South Coast Air Quality Management District
SCCIC	South Central Coastal Information Center

Abbreviation	Definition
SCR	Santa Clara River
SCV	Santa Clarita Valley
SCVGSA	Santa Clarita Valley Groundwater Sustainability Agency
SCVSD	Santa Clarita Valley Sanitation District
SEA	significant ecological area
SF ₆	sulfur hexafluoride
SGMA	Sustainable Groundwater Management Act
SIP	state implementation plan
SLCP	short-lived climate pollutants
SLF	Sacred Lands File
SLM	Soundtrack Integrated Sound Level Meter
SO ₂	sulfur dioxide
SO ₄	sulfates
SOC	statement of overriding considerations
SO _x	sulfur oxide
SPRR	Southern Pacific Railroad
SPW	secant pile wall
SR-	State Route
SRA	State Responsibility Area
SSC	species of special concern
SVP	Society for Vertebrate Paleontology
SWPPP	stormwater pollution prevention plan
SWRCB	State Water Resources Control Board
TAC	toxic air contaminant
TDP	transit development plan
TPA	Transit Priority Area
TSCA	Toxic Substances Control Act
UBC	Uniform Building Code
UHII	Urban Heat Island Index
USCB	United States Census Bureau
USDOE	U.S. Department of Energy
USDOT	U.S. Department of Transportation
USEPA	United States Environmental Protection Agency
USFWS	U.S. Fish and Wildlife Service

Abbreviation	Definition
USGS	U.S. Geological Survey
UST	underground storage tank
UWMP	urban water management plan
VdB	decibel notation
VHFHSZ	Very High Fire Hazard Severity Zone
VMT	vehicle miles traveled
VOC	volatile organic compound
VWRP	Valencia Water Reclamation Plant
WARM	warm freshwater habitat
WBWG	Western Bat Working Group
WEAP	Workers Environmental Awareness Program
WET	wetlands habitat
WGCEP	Working Group on California Earthquake Probabilities
WHO	World Health Organization
WILD	wildlife habitat
ZEV	zero-emission vehicles
µg/m ³	microgram per cubic meter

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EXECUTIVE SUMMARY

ES.1 Introduction and Background

The Santa Clarita Valley Sanitation District (SCVSD or District) as the lead agency pursuant to the California Environmental Quality Act (CEQA) is proposing to implement the Valencia Water Reclamation Plant (VWRP) Middle Section Retaining Wall Ground Improvement Project (proposed project) in unincorporated Los Angeles County. The proposed project would help achieve long-term protection of the middle section of the VWRP boundary along the Santa Clara River (SCR) by installing an underground retaining wall structure to reinforce the existing middle section retaining wall. The proposed project would also include upgrades to two outfall structures and the addition of riprap along the southern portion of the VWRP wall.

This Draft Environmental Impact Report (EIR) has been prepared in compliance with CEQA of 1970 (as amended), codified at California Public Resources Code Sections 21000 et. seq., and the State CEQA Guidelines in the Code of Regulations, Title 14, Division 6, Chapter 3. The State Clearinghouse Number is 2023110644. The proposed project is described further in Chapter 2, *Project Description* and shown in **Figure ES-1**.

The VWRP is located in an urbanized area in unincorporated Los Angeles County. The project site is bound by The Old Road to the north and adjacent commercial businesses to the northeast, the SCR to the west and south, and Six Flags Magic Mountain amusement park to the southwest beyond the SCR. The SCR adjacent to the VWRP is part of the Santa Clara River Significant Ecological Area (SEA). In addition, areas surrounding the VWRP along its western boundary are part of a California Department of Fish and Wildlife (CDFW) Conservation Easement (**Figure ES-2**).

ES.2 Project Objectives

The main objective of the proposed project is to achieve long-term protection of the middle section of the VWRP boundary along the SCR in case of a future Capital Flood scour event. The objectives of the proposed project area as follows:

- Construct a structure that can withstand Capital Flood scour levels (PACE, 2016) with limited impact to the VWRP area;
- Construct a structure that can withstand a design level earthquake following the Capital Flood scour levels with limited impact to the VWRP area;
- Allow uninterrupted plant operation with controlled impact from construction activities;

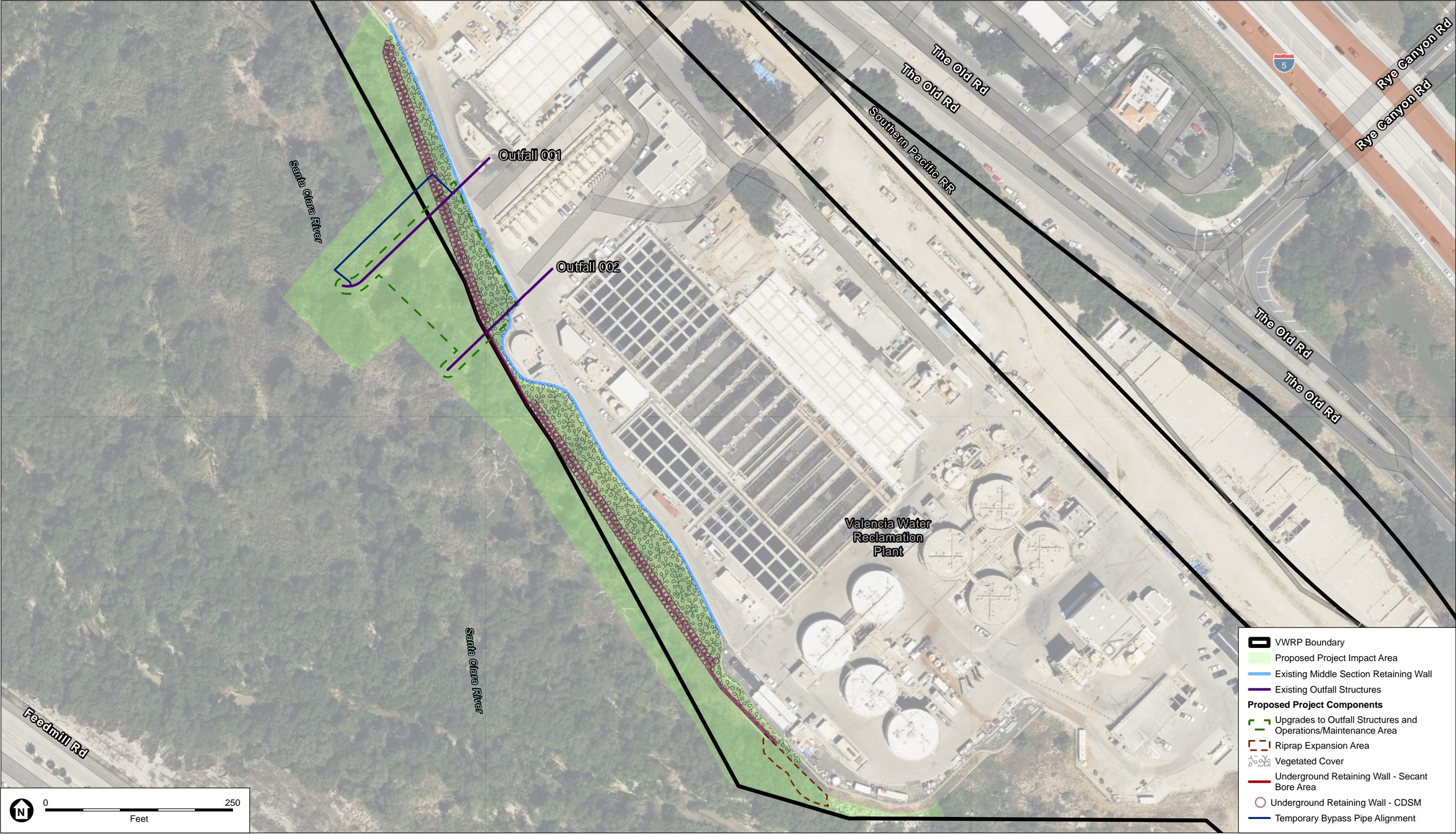
- Achieve effective tie-ins with the existing deep-scour protection retaining wall on the south and north ends of the proposed construction;
- Improve the condition of discharge outfall sections that will be affected by construction of the proposed structure.
- Maintain permanent improvements within the property limits of the VWRP;
- Minimize permanent impacts to the vegetated area to the riverside of the existing retaining wall;
- Minimize temporary construction impacts to the existing vegetated area riverside of the existing retaining wall;
- Minimize the disturbance of the recently revegetated area alongside the Advanced Water Treatment Facility retaining wall; and
- Develop a cost-effective solution.

ES.3 Project Description

The VWRP is one of two water reclamation plants owned by the SCVSD and serves the City of Santa Clarita and a portion of unincorporated Los Angeles County. Continuous operations of the VWRP are critical for the ability of the SCVSD to provide essential service to its customers. Recent studies identified that scour of the Santa Clara River under a Capital Flood may erode materials to the point that facilities of the VWRP may be damaged or destroyed. The proposed project would include reinforcement of the existing middle section retaining wall along the southwestern side of the VWRP, upgrades to two existing outfall structures, and the addition of riprap along the southern portion of the VWRP wall. The proposed project would impact approximately 3.26 acres just outside of the VWRP. The proposed project would not require any road closures during construction and no new permanent lighting would be required for the proposed new structures.

ES.4 Project Alternatives

An EIR must describe a range of reasonable alternatives to the project or alternative project locations that could feasibly attain most of the basic project objectives and would avoid or substantially lessen any of the significant environmental impacts of project. The alternatives analysis must include the “No Project Alternative” as a point of comparison. The No Project Alternative includes existing conditions and reasonably foreseeable future conditions that would exist if the proposed project were not approved (CEQA Guidelines Section 15126.6). The following alternatives are discussed further in Chapter 5, *Alternatives Analysis*.



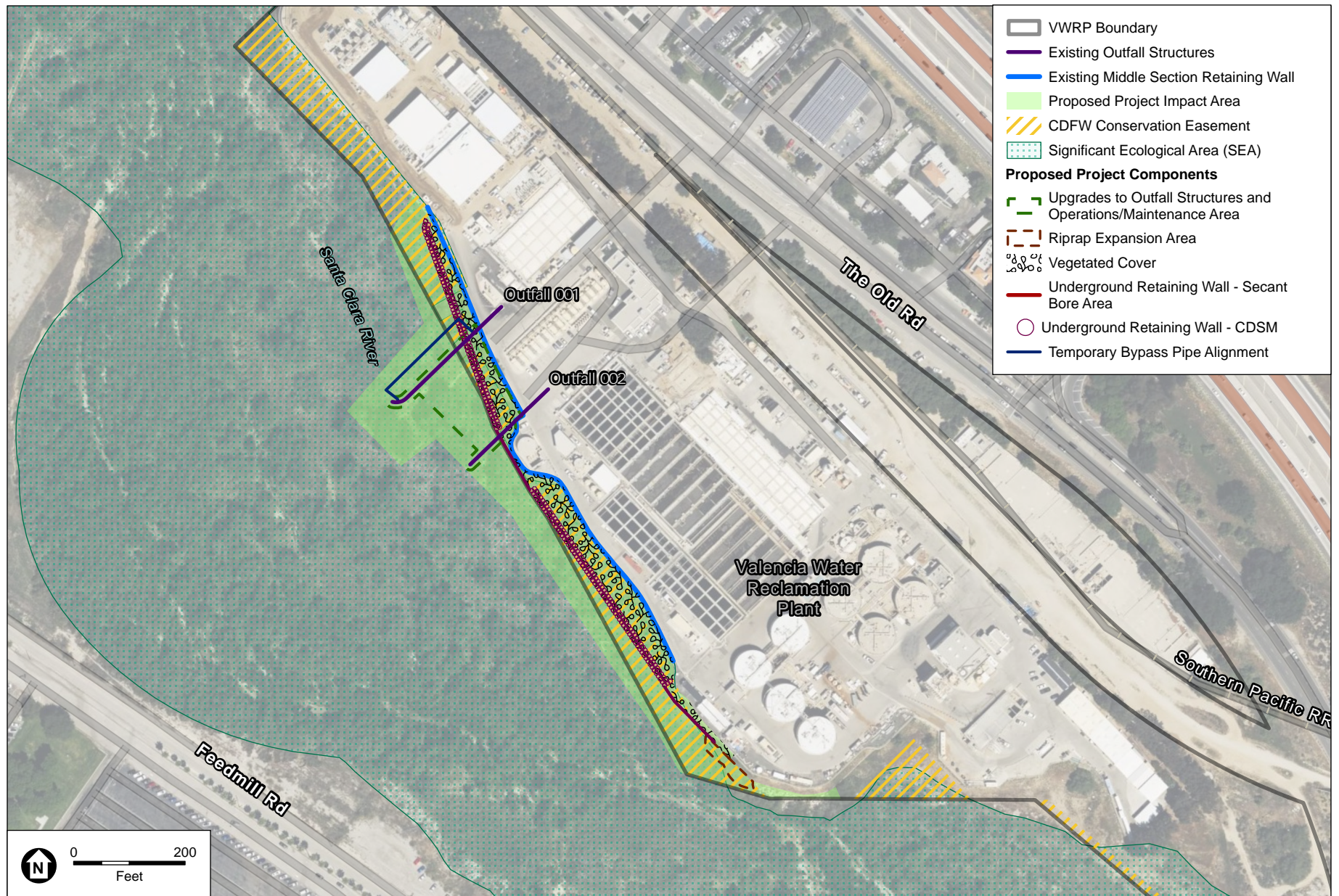
SOURCE: ESA, 2024

VWRP Middle Section Retaining Wall Ground Improvement Project

Figure ES-1
Project Location



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SOURCE: ESA, 2024

VWRP Middle Section Retaining Wall Ground Improvement Project

Figure ES-2
CDFW Conservation Easement

ES.4.1 Proposed Project Alternatives

An Alternative Selection Report was prepared in 2023 (Geosyntec 2023) and assessed three possible alternatives for a new structure along the wall's middle section that could protect the VWRP during Capital Flood scour levels and a design level earthquake. The alternatives were selected for their ability to meet the project's objectives and the main objectives of the alternatives development process include achieving long-term protection of the middle section of the VWRP boundary along the Santa Clara River; constructing a structure that can withstand Capital Flood scour levels and a design level earthquake with limited impact to the VWRP area; allow uninterrupted VWRP operation with controlled impact from construction activities; and to maintain permanent improvements within the property limits of the VWRP. The Alternative Selection Report focused on the underground wall improvement location where the proposed project is being constructed, but also identified two additional alternatives. One alternative included reconstruction of the existing MSE wall and a second alternative included wall improvements within the VWRP-side of the wall (instead of the riverside). The reconstruction alternative of the existing MSE wall would require extensive temporary shoring, disturb area along the riverside of the MSE wall, and impact VWRP facilities. Since this alternative would increase impacts to the VWRP operations and would not result in the reduction of any environmental impacts associated with the proposed project, this alternative is being rejected from further consideration.

Under the Alternative 1: No Project Alternative, none of the actions described in Chapter 2, including reinforcement of the existing middle section retaining wall along the southwest side of the VWRP, upgrades to two existing outfall structures, or the addition of riprap along the southern portion of the VWRP wall would occur. Scour of the Santa Clara River under a future Capital Flood event may continue to erode materials to the point that VWRP facilities may be damaged or destroyed, thereby disrupting essential services and adversely affecting public health and the environment, if the project is not implemented.

Under Alternative 2: VWRP side Improvement, the proposed improvements would be constructed behind the existing MSE wall within the VWRP. The area behind the MSE wall is used as a utility corridor and houses structures to support VWRP operations. Geosyntec (2023) notes that this alternative would require a significant undertaking in utility and structure relocation within the VWRP property boundaries. However, the VWRP has no practical space or land for relocating these impacted utilities and structures. Additionally, the utility relocation, impacts to existing structures, and the need to create space for construction would have a significant impact on VWRP operations (Geosyntec 2023). Consequently, these operational impacts would significantly increase the risk of operational shutdowns, which would disrupt essential wastewater treatment services and adversely affecting public health and the environment. Although Alternative 2 would minimize impacts to the vegetated area riverside of the MSE wall, Geosyntec (2023) notes that this alternative would result in the least efficient scour protection approach from an engineering perspective. Although Alternative 2 could be considered the environmentally superior alternative due to the reduced biological impacts, Alternative 2 would not meet the project objective of allowing uninterrupted VWRP operations during construction activities. Additionally, this alternative would provide the least efficient scour protection and would not contribute to the main objective of the proposed project to achieve long-term protection of the middle section of the VWRP boundary in case of future Capital Flood scour event. As a result, Alternative 2 was not selected as the proposed project.

ES.5 Areas of Controversy

During the NOP public review period, concerns were raised regarding potential adverse impacts to the CDFW Conservation Easement and biological impacts during construction of the proposed project. These concerns have been addressed in Chapter 3 of this Draft EIR. All comments received on the NOP are included in **Appendix NOP** to this Draft EIR.

ES.6 Summary of Impacts

Table ES-1, at the end of this chapter, presents a summary of the impacts and mitigation measures identified for the proposed project. The complete impact statements and mitigation measures are presented in Chapter 3 of this Draft EIR. The level of significance for each impact was determined using significance criteria (thresholds) developed for each category of impacts; these criteria are presented in the appropriate sections of Chapter 3. Significant impacts are those adverse environmental impacts that meet or exceed the significance thresholds; less than significant impacts would not exceed the thresholds. Table ES-1 indicates the measures that will be implemented to avoid, minimize, or otherwise reduce significant impacts to a less than significant level.

The CEQA Guidelines require that an EIR discuss the significant environmental effects of the proposed project (Section 15126.2(a)), which are summarized in Table ES-1 and provided in Chapters 3 and 4 of the Draft EIR. The CEQA Guidelines also require that an EIR discuss the significant environmental effects which cannot be avoided (Section 15126.2(c)). These are discussed below.

ES.6.1 Significant and Unavoidable Environmental Effects

As required by CEQA Guidelines Section 15126.2(c), an EIR must describe any significant impacts that cannot be avoided, including those impacts that can be mitigated but not reduced to a less than significant level. Where there are impacts that cannot be alleviated without imposing an alternative design, their implications and the reasons the project is being proposed, notwithstanding their effect, should be described. Chapter 3 of this Draft EIR describes the potential environmental impacts of the proposed project and recommends mitigation measures to reduce impacts, where feasible. The proposed project would not result in any significant and unavoidable impacts as documented in the analyses provided in Chapters 3, 4, and 5 of this Draft EIR.

ES.7 Organization of the Draft EIR

This Draft EIR is organized into the following chapters and appendices:

- **Executive Summary.** This chapter summarizes the contents of the Draft EIR.
- **Chapter 1, Introduction.** This chapter discusses the CEQA process and explains the purpose of the Draft EIR.
- **Chapter 2, Project Description.** This chapter provides an overview of the proposed project, describes the need for and objectives of the proposed project, explains planning for construction and operation of the proposed project, and presents a preliminary list of the agencies and entities, in addition to SCVSD, that would use this EIR in their consideration of specific permits and other discretionary approvals for the proposed project.

- **Chapter 3, Environmental Setting, Impacts and Mitigation Measures.** This chapter describes the environmental setting and identifies the direct, indirect, and cumulative impacts of the proposed project for each of the following environmental topics: Air Quality and Greenhouse Gas Emissions; Biological Resources; Cultural Resources; Geology and Soils; Hazards and Hazardous Materials; Hydrology and Water Quality; Noise; Transportation; Tribal Cultural Resources; and Wildfire. This chapter also summarizes environmental topics for which no significant impact would occur. For the assessment of cumulative impacts, this chapter includes a list of past, current, and probable future projects to be considered together with the proposed project.
- **Chapter 4, Other CEQA Considerations.** This chapter discusses the significant irreversible environmental changes and growth-inducing impacts associated with the proposed project.
- **Chapter 5, Alternatives Analysis.** This chapter presents an overview of the alternatives development process, describes the alternatives to the proposed project that were considered, and describes potential impacts of feasible alternatives relative to those of the proposed project.
- **Chapter 6, Report Preparers.** This chapter identifies the key staff and the authors involved in preparing this Draft EIR.
- **Appendices.** The appendices include materials related to the NOP and scoping process (**Appendix A**), as well as technical studies that support the impact analyses, such as an Air Quality and Greenhouse Gas Emissions Calculations (**Appendix B**), Aquatic Resources Delineation Report and Biological Constraints Analysis (**Appendix C**), Cultural Resources Assessment Report (**Appendix D; Confidential**), Paleontological Resources Assessment Report (**Appendix E; Confidential**), Noise Data and Calculations (**Appendix F**), the Tribal Cultural Resources Consultation (**Appendix G**), and Alternative Selection Report prepared for the project (**Appendix H**).

ES.8 References

Geosyntec Consultants (Geosyntec). 2023. *Alternative Selection Report*. Scour Protection Structure Middle Section at Valencia Water Reclamation Plant (VWRP) Valencia, California. January 6, 2023.

TABLE ES-1
SUMMARY OF IMPACTS AND MITIGATION MEASURES

Impacts	Mitigation Measures	Significance after Mitigation
Air Quality		
3.1-1: The proposed project could conflict with or obstruct implementation of the applicable air quality plan.	None Required	Less than Significant Impact
3.1-2: The proposed project could result in a cumulatively considerable net increase of any criteria pollutant for which the project region is nonattainment under an applicable federal or state ambient air quality standard.	None Required	Less than Significant Impact
3.1-3: The proposed project could expose sensitive receptors to substantial pollutant concentrations.	None Required	Less than Significant Impact
3.1-4: The proposed project could create objectionable odors affecting a substantial number of people.	None Required	Less than Significant Impact
3.1-5: Concurrent construction and operation of the proposed project and related projects in the geographic scope could result in cumulative short-term and long-term impacts.	None Required	Less than Significant Impact
Biological Resources		
3.2-1: The proposed project could have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service.	<p>BIO-1: Rare Plants. Preconstruction special-status plant surveys within areas containing suitable habitat throughout the project site during the appropriate blooming periods for Catalina mariposa lily, chaparral ragwort, Hubby's phacelia, Nuttall's scrub oak, Palmer's grappling hook, Peirson's morning glory, Plummer's mariposa lily, slender mariposa lily and southern California black walnut. Throughout the project site. Plant surveys shall be conducted in accordance with CDFW's Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Sensitive Natural Communities (CDFW March 20, 2018). If special-status plants are found to be present within or near the project impact area, a suitable area around the plants (as determined by a qualified biologist) shall be avoided and demarcated with orange-mesh construction fencing to impacts to special-status plant species.</p> <p>If restoration, translocation and/or seed collection is used to mitigate impacts to special-status plants, a restoration/translocation plan shall be developed for CDFW approval prior to any disturbance to special-status plants and shall include, but shall not be limited to, the following information: identification of documented populations of the specie(s) within the project site, estimated impacts to the population on-site, proposed restoration methods (e.g., translocation, seed collection, etc.), expected timeline, success criteria, performance standards, funding source(s) and responsible parties, maintenance methods and schedule,</p>	Less than Significant Impact with Mitigation Incorporated

Impacts	Mitigation Measures	Significance after Mitigation
	<p>irrigation methods and schedule, adaptive management strategies, and a minimum 5-year monitoring and reporting program.</p> <p>BIO-2: General Minimization and Avoidance Measures. The following measures shall be implemented to avoid and minimize impacts to sensitive wildlife during construction activities.</p> <ul style="list-style-type: none"> • Prior to commencement of the project, a Workers Environmental Awareness Program (WEAP) shall be prepared and presented to construction crews. The WEAP shall provide an overview of all sensitive resources that occur or may occur within the study area, and the appropriate steps that shall be taken, shall such resources be observed during construction activities. The WEAP shall concentrate on the proper identification of sensitive resources while in the field, suggested strategies in avoiding impact to such resources, and the proper reporting methods for field crews in the event that such resources are observed during construction activities. • SCVSD construction personnel shall cover all excavations at the end of each workday to prevent the entrapment of wildlife. Alternatively, a ramp no greater than 2:1 slope shall be constructed in each excavation to allow trapped wildlife to escape. Prior to the commencement of construction each day, SCVSD construction personnel shall check excavations each morning to ensure that wildlife has not become trapped in any excavation overnight. • Prior to the commencement of construction activities, SCVSD construction personnel shall check under stationary equipment to ensure no wildlife species are present. • All project-related trash shall be collected daily and taken offsite for proper disposal. <p>BIO-3: Nesting Birds and Raptors. To avoid impacts to nesting birds and raptors, work activities within 500 feet of suitable nesting habitat shall be timed to avoid the season when nests may be active (i.e., January 15 to September 15). If work activities occur within the nesting season, a qualified biologist shall conduct a focused survey within 30 days of the anticipated start date, and no less than 3 days prior to ground disturbance, to identify any active nests within 500 feet of the development footprint. If an active nest is found, the nest shall be avoided and a suitable buffer zone shall be delineated in the field where no impacts shall occur until the chicks have fledged the nest, or has otherwise been deemed inactive by a qualified biologist. Construction buffers shall be 300 feet for passerines or up to 500 feet for raptors; however, avoidance buffers may be reduced at the discretion of the biologist, depending on the location of the nest and species tolerance to human presence and construction-related noises and vibrations.</p>	

Impacts	Mitigation Measures	Significance after Mitigation
	<p>BIO-4: Nighttime Construction. To avoid disrupting the movement of wildlife within the Santa Clara River, construction activities shall be restricted to daylight hours (7:00 am-7:00 pm) whenever feasible. When construction must take place during nighttime hours (i.e., outfall bypass), all light sources shall be shielded and directed away from the river corridor, to minimize impacts to wildlife foraging, breeding and/or movement.</p> <p>BIO-5: Special-Status Bird Surveys. Prior to the start of construction, focused surveys for the three listed bird species with potential to occur within the project area (least Bell's vireo, southwestern willow flycatcher and/or yellow-billed cuckoo) shall be conducted to determine presence/absence of the species within the study area. These shall be conducted in accordance with the Least Bell's Vireo Survey Guidelines, A Natural History Summary and Survey Protocol for the Southwestern Willow Flycatcher and A Natural History Summary and Survey Protocol for the Western Distinct Population Segment of the Yellow-billed Cuckoo. If surveys verify absence of all species, no further action is required.</p> <p>If surveys determine that these species are present within 500 feet of the project site, and avoidance of the nesting bird season (Mitigation Measure BIO-3) is not feasible, steps shall be taken to reduce effects to nesting activity by actively reducing construction noise (to no more than 10 decibels (dBA) above pre-construction ambient noise levels) at an active nest or occupied habitat. If construction must take place within 500 feet of an active nest of either the least Bell's vireo, southwestern willow flycatcher, or yellow-billed cuckoo, a qualified biologist will monitor noise levels to ensure that they do not exceed 10 dBA above pre-construction ambient noise levels. If this is not feasible, installation of temporary construction noise barriers may be installed to reduce noise levels to an acceptable level. If the blocking of noise using sound barriers is not feasible, work activities shall be postponed until the nest is deemed inactive and/or the breeding season has concluded.</p> <p>BIO-6: Habitat Replacement. Impacts to aquatic resources, critical habitat and habitat occupied by a federally-listed species, CDFW sensitive natural communities, or areas covered by a conservation easement shall be replaced at a minimum replacement ratio of 1:1 for temporary impacts (excluding developed land cover) and at the following ratios for permanent impacts:</p> <ul style="list-style-type: none"> • Aquatic resources, critical habitat and habitat occupied by a federal-listed species, or CDFW sensitive natural communities – 4:1 ratio • CDFW conservation easement <ul style="list-style-type: none"> ○ Disturbed habitat, Giant reed marshes, non-native annual grasses and forbs and tamarisk – 2:1 ratio ○ All other natural communities and land cover types (excluding developed land cover) – 4:1 ratio 	

Impacts	Mitigation Measures	Significance after Mitigation
	<ul style="list-style-type: none"> SEA categories 1 and 3: <ul style="list-style-type: none"> SEA Category 1 – 4:1 ratio SEA Category 3– 2:1 ratio <p>Mitigation options for habitat replacement may include the creation or restoration of habitat on- or off-site, or through the purchase of mitigation credits at a suitable mitigation bank as follows:</p> <ul style="list-style-type: none"> On- or off-site restoration. A restoration plan shall be developed to address habitat impacts that, at a minimum, includes the following information: estimated impacts to habitat, proposed restoration methods (e.g., hydroseeding, container planting, etc.), expected timeline, success criteria/performance standards, funding source(s) and responsible parties, maintenance methods and schedule, irrigation methods and schedule, adaptive management strategies, and a minimum 5-year monitoring and reporting program. The proposed mitigation strategy for the creation/restoration of occupied federally-listed species habitat shall be developed in coordination with and at the approval of the USFWS and/or CDFW. Mitigation Bank. Mitigation credits shall be purchased at a mitigation bank suitable for replacement of the impacted habitat type, and will be determined in consultation with the USFWS and/or CDFW. <p>BIO-7: Bats. Construction activities shall take place outside of the bat roosting season (March 01-August 31 to avoid impacts to roosting and/or breeding bats where feasible. If this is not feasible, a pre-construction survey shall be completed within suitable habitat by a qualified biologist to identify active roosts within 500-ft of construction activities:</p> <ul style="list-style-type: none"> If a day roost (non-breeding) is present, prior to the removal of any trees supporting a day roost, the biologist will ensure that all roosting individuals disperse from the location prior to removal of the vegetation to prevent direct mortality. If a maternity roost (lactating females and dependent young) is observed, the biologist will determine whether construction activities are likely to disturb breeding activities. If it is determined that the vegetation supporting the roost must be removed or activities are expected to disturb the breeding activities, a Bat Exclusion Plan shall be prepared for CDFW approval. At a minimum, the plan shall include avoidance and minimization measures (if deemed necessary, with noise reduction measures), to reduce potential impacts to breeding bats during construction activities and prescribed methods to evict bats safely and humanely from the roost to minimize any potential impacts. 	

Impacts	Mitigation Measures	Significance after Mitigation
	<p>BIO-8: Non-listed, Special-Status Mammals and Herpetofauna. A qualified biologist shall conduct a pre-construction survey of suitable habitat within 300 feet of proposed construction, for the American badger, coastal whiptail, coast horned lizard, San Diegan legless lizard and two-striped garter snake. If an individual of the aforementioned species is observed within the project site, a qualified biologist shall relocate the species to a location at least 300 feet from any potential impact areas.</p> <p>If an active nest/den is encountered incidentally during the clearance survey, it shall be replaced and left undisturbed until the eggs have hatched (e.g., coastal western whiptail, coast horned lizard, etc.) and/or live young have matured enough (i.e., American badger) for the biologist to deem it inactive and/or to relocate any individuals outside of disturbance areas.</p> <p>BIO-9: Southwestern Pond Turtle. Focused surveys for southwestern pond turtle in accordance with USGS Western Pond Turtle (<i>Emys marmorata</i>) Trapping Survey Protocol for the Southcoast Ecoregion and USGS Western Pond Turtle (<i>Emys marmorata</i>) Trapping Protocol for the Southcoast Ecoregion shall be conducted to determine presence/absence of the species within the study area. If surveys verify absence, no further action is required. If surveys determine that southwestern pond turtles are present within 500 feet of the project site, the following shall be completed as necessary:</p> <ul style="list-style-type: none"> Postpone construction and reschedule outside of the breeding season (May-July) or ensure that construction remains 500 feet from known active nests or otherwise occupied (foraging and/or nesting) habitat. If this is not feasible and activities must take place during the nesting season, steps shall be taken to reduce effects to nesting activity by actively reducing construction noise (to no more than 10 decibels (dBA) above pre-construction ambient noise levels) within proximity to occupied habitat and/or installing temporary construction noise barriers. If the active reduction of noise or the blocking of noise using sound barriers is not feasible, work activities shall be postponed until the nest is deemed inactive and/or the breeding season has concluded. Prior to construction, a qualified biologist shall conduct a clearance of suitable habitat within 300 feet of proposed construction. If a turtle is observed within or adjacent to the project site, a qualified biologist with approval from the USFWS, shall relocate the individual to a location at least 300 feet from any potential impact areas. If an active nest is encountered during the clearance survey, it shall be left undisturbed until the eggs have hatched and/or the biologist has otherwise deemed it inactive. <p>BIO-10: Crotch's Bumble Bee. A qualified entomologist, approved by CDFW, shall conduct a focused survey in suitable habitat (e.g.,</p>	

Impacts	Mitigation Measures	Significance after Mitigation
	<p>Fremont cottonwood forest, blue elderberry woodland, California rose briars, and non-native grasses and forbs), in accordance with the California Bumble Bee Atlas Point Surveys protocol to determine presence/absence of the species. Surveys shall be conducted within one year prior to vegetation removal activities and a minimum of three surveys shall be conducted during peak flying season (April-August), when the species is most likely to be detected above ground. If surveys verify absence, no further action is required.</p> <p>If surveys determine that Crotch's bumble bees are currently utilizing the study area, within 500 feet of the project site, a qualified entomologist shall identify the location of all nests within and adjacent to the project site. A 15-meter no disturbance buffer zone shall be established around any identified nest(s) to reduce the risk of disturbance or incidental take. A qualified entomologist shall expand the buffer zone as necessary to prevent disturbance or take. If impacts to a nest from proposed construction is unavoidable, consultation with the CDFW shall occur to determine if take authorization may be necessary. If take authorization is granted, the qualified entomologist will relocate the nest to a suitable location, through coordination with the CDFW. Various considerations shall be made to further reduce impacts during the relocation, such as 1) delaying relocation until the queen has the opportunity to emerge and 2) relocating within the home range of the nest.</p>	
3.2-2: The proposed project could have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by CDFW or USFWS.	Implement Mitigation Measures BIO-6.	Less than Significant Impact with Mitigation Incorporated
3.2-3: The proposed project could 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.	<p>Implement Mitigation Measures BIO-6.</p> <p>BIO-11. Impacts to previously restored habitat (inclusive of 4 mitigation trees) associated with the VWRP Retaining Wall Extension Project shall require coordination with CDFW under the existing Streambed Alteration Agreement Notification No. 1600-2016-004-R5.</p>	Less than Significant Impact with Mitigation Incorporated
3.2-4: The proposed project could 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.	Implement Mitigation Measure BIO-4.	Less than Significant Impact with Mitigation Incorporated
3.2-5: The proposed project could conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.	<p>Implement Mitigation Measure BIO-6.</p> <p>BIO-12: SEA Resources. Impacts to SEA categories and protected trees shall be provided through coordination with the Los Angeles County Planning Department via SEA Counseling and Ministerial Review, and through the application for a Protected Tree Permit and/or SEA Conditional Use Permit.</p>	Less than Significant Impact with Mitigation Incorporated

Impacts	Mitigation Measures	Significance after Mitigation
3.2-6: The proposed project could conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan.	None Required	No Impact
3.2-7: Concurrent construction and operation of the proposed project and related projects in the geographic scope could result in cumulative short-term and long-term impacts.	Implement Mitigation Measures BIO-1 through BIO-12.	Less than Significant Impact with Mitigation Incorporated
Cultural Resources		
3.3-1: The proposed project could cause a substantial adverse change in the significance of a historical resource pursuant to §15064.5.	None Required	No Impact
3.3-2: The proposed project could cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5.	<p>CUL-1: Retain a Qualified Archaeologist and Conduct Construction Worker Training. SCVSD shall retain a qualified archaeologist who meets the Secretary of the Interior's Professional Qualifications Standards to conduct construction worker cultural resources sensitivity training prior to the start of ground disturbing activities. In the event construction crews are phased, additional trainings shall be conducted for new construction personnel. The training session shall focus on the recognition of the types of archaeological resources that could be encountered within the project site, working with on-site cultural resource monitors, and the procedures to be followed if cultural resources are found. Documentation shall be retained demonstrating that all construction personnel attended the training. The qualified archaeologist shall also oversee an archaeological monitor who shall be present during construction excavations such as demolition, clearing/grubbing, grading, trenching, or any other construction excavation activity associated with the project. The qualified archaeologist shall provide technical and compliance oversight of all work as it relates to archaeological resources, shall attend the project kick-off meeting and project progress meetings on a regular basis, and shall report to the site in the event potential archaeological resources are encountered.</p> <p>CUL-2: Conduct Archaeological Monitoring. The construction contractor will use a qualified archaeological monitor, working under the supervision of a qualified archaeological Principal Investigator during ground disturbing activities including, but not limited to, demolition of foundations and footings, trenching, grading, demolition of outfall structures and over excavation for secant piles within the project site. The archaeological monitor will have the authority to redirect construction equipment in the event potential archaeological resources are encountered. In the event archaeological resources are encountered, SCVSD will be notified immediately and work in the vicinity of the discovery will halt until appropriate treatment of the resource, is</p>	Less than Significant Impact with Mitigation Incorporated

Impacts	Mitigation Measures	Significance after Mitigation
	<p>determined by the qualified archaeological Principal Investigator in consultation with the County in accordance with the provisions of CEQA.</p> <p>CUL-3: Final Monitoring Report. The archaeological monitor shall prepare a final report and appropriate California Department of Parks and Recreation Site Forms at the conclusion of archaeological monitoring. The report shall include a description of resources unearthed, if any, treatment of the resources, results of the artifact processing, analysis, and research, and evaluation of the resources with respect to the California Register of Historical Resources and CEQA. The report and the Site Forms shall be submitted to the SCVSD, the South Central Coastal Information Center, and representatives of other appropriate or concerned agencies to signify the satisfactory completion of the project and required mitigation measures.</p>	
<p>3.3-3: The proposed project could disturb any human remains, including those interred outside of dedicated cemeteries.</p>	<p>CUL-4: Human Remains. If human remains are encountered unexpectedly during construction demolition and/or grading activities, Section 7050.5 of the California Health and Safety Code (CHSC) requires that no further disturbance shall occur until the County Coroner has made the necessary findings as to origin and disposition pursuant to California PRC 5097.98. Remains suspected to be Native American are treated under CEQA at CCR 15064.5; PRC 5097.98 illustrates the process to be followed if remains are discovered. If human remains are discovered during excavation activities, the following procedure shall be observed:</p> <p>Stop immediately and contact the County Coroner:</p> <p>1104 N. Mission Road Los Angeles, CA 90033 323-343-0512 (8 am to 5 pm Monday through Friday) or 323-343-0714 (After hours, Saturday, Sunday, and Holidays)</p> <ul style="list-style-type: none"> • If the remains are determined to be of Native American descent, the Coroner has 24 hours to notify the NAHC. • The NAHC will immediately notify the person it believes to be the most likely descendant (MLD) of the deceased Native American. • The MLD has 48 hours to make recommendations to the owner, or representative, for the treatment or disposition, with proper dignity, of the human remains and grave goods. • If the owner does not accept the MLD's recommendations, the owner or the MLD may request mediation by the NAHC. 	<p>Less than Significant Impact with Mitigation Incorporated</p>
<p>3.3-4: Concurrent construction and operation of the proposed project and related projects in the geographic scope could result in cumulative short-term and long-term impacts.</p>	<p>None Required</p>	<p>Less than Significant Impact</p>

Impacts	Mitigation Measures	Significance after Mitigation
Geology and Soils		
3.4-1: The proposed project could cause potential substantial adverse effects involving rupture of a known earthquake fault, strong seismic ground shaking, seismic-related ground failure including liquefaction, and/or landslides.	None Required	Less than Significant Impact
3.4-2: The proposed project could result in substantial soil erosion or the loss of topsoil.	None Required	Less than Significant Impact
3.4-3: The proposed project could be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project.	None Required	Less than Significant Impact
3.4-4: The proposed project could directly or indirectly destroy a unique paleontological resource or site or unique geologic feature.	<p>GEO-1: Prior to any Project ground disturbance activities, a qualified paleontologist shall be retained by SCVSD to prepare a Worker's Environmental Awareness Program (WEAP) and train all construction personnel prior to the start of any construction activities. The WEAP training shall include, at a minimum, the following information:</p> <ul style="list-style-type: none"> Review of local and State laws and regulations pertaining to paleontological resources; Types of fossils that could be encountered during ground disturbing activity in the Saugus Formation; Photos of example fossils based on the regional LACM collections that could occur on site for reference; and Instructions on the procedures to be implemented should unanticipated fossils be encountered during construction, including stopping work in the vicinity of the find and contacting a qualified professional paleontologist. <p>GEO-2: In the event an unanticipated fossil discovery is made during ground disturbing activities, construction activities shall halt in the immediate vicinity of the fossil, and the qualified professional paleontologist retained by SCVSD shall be notified to evaluate the discovery, determine its significance, and evaluate whether additional mitigation or treatment is warranted. Work in the area of the discovery shall resume once the find is properly documented and authorization is given by the qualified paleontologist to resume construction work. Any significant paleontological resources found shall be prepared, identified, analyzed, and permanently curated in an approved regional museum repository.</p>	Less than Significant Impact with Mitigation Incorporated
3.4-5: Concurrent construction and operation of the proposed project and related projects in the geographic scope could result in cumulative short-term and long-term impacts.	None Required	Less than Significant Impact

Impacts	Mitigation Measures	Significance after Mitigation
Greenhouse Gas Emissions		
3.5-1: The proposed project could generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment.	None Required	Less than Significant Impact
3.5-2: The proposed project could conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases.	None Required	Less than Significant Impact
3.5-3: Concurrent construction and operation of the proposed project and related projects in the geographic scope could result in cumulative short-term and long-term impacts.	None Required	Less than Significant Impact
Hazards and Hazardous Materials		
3.6-1: The proposed project could create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials, or through the reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment.	None Required	Less than Significant Impact
3.6-2: The proposed project could impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan.	None Required	Less than Significant Impact
3.6-3: The proposed project could expose people or structures, either directly or indirectly, to a significant risk of loss, injury, or death involving wildland fires.	Implement Mitigation Measures WF-1 and WF-2 (Refer to Wildfire Section below)	Less than Significant Impact with Mitigation Incorporated
3.6-4: Concurrent construction and operation of the proposed project and related projects in the geographic scope could result in cumulative short-term and long-term impacts.	None Required	Less than Significant Impact
Hydrology and Water Quality		
3.7-1: The proposed project could violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality.	None Required	Less than Significant Impact
3.7-2: The proposed project could substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin.	None Required	Less than Significant Impact
3.7-3: The proposed project could 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.	None Required	No Impact

Impacts	Mitigation Measures	Significance after Mitigation
3.7-4: The proposed project could conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan.	None Required	Less than Significant Impact
3.7-5: Concurrent construction and operation of the proposed project and related projects in the geographic scope could result in cumulative short-term and long-term impacts.	None Required	Less than Significant Impact
Noise		
3.8-1: The proposed project could generate 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.	None Required	Less than Significant Impact
3.8-2: The proposed project could generate excessive groundborne vibration or groundborne noise levels.	None Required	Less than Significant Impact
3.8-3: Concurrent construction and operation of the proposed project and related projects in the geographic scope could result in cumulative short-term and long-term impacts.	None Required	Less than Significant Impact
Transportation		
3.9-1: The proposed project could conflict with a program plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities.	None Required	Less than Significant Impact
3.9-2: The proposed project could conflict or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b).	None Required	Less than Significant Impact
3.9-3: Concurrent construction and operation of the proposed project and related projects in the geographic scope could result in cumulative short-term and long-term impacts.	None Required	Less than Significant Impact
Tribal Cultural Resources		
3.10-1: The proposed project could cause a substantial adverse change in the significance of a tribal cultural resource.	TCR-1: SCVSD shall retain a professional Tribal monitor procured by the Fernandefio Tataviam Band of Mission Indians to observe all ground-disturbing activities including, but not limited to, excavating, digging, trenching, plowing, drilling, tunneling, quarrying, grading, leveling, clearing, driving posts, auguring, blasting, stripping topsoil or similar activity. In the event that Native American cultural resources are discovered during project activities, all work in the immediate vicinity of the find (within a 60-foot buffer) shall cease and a qualified archaeologist meeting Secretary of Interior standards retained by the SCVSD shall assess the find. The archaeologist and Tribal monitor will have the authority to request ground disturbing activities cease within the area of a discovery. Work on the other portions of the project outside of the buffered area may continue during this assessment period.	Less than Significant Impact with Mitigation Incorporated

Impacts	Mitigation Measures	Significance after Mitigation
	TCR-2: SCVSD shall, in good faith, consult with the Fernandeño Tataviam Band of Mission Indians on the disposition and treatment of any Tribal Cultural Resource encountered during project implementation.	
3.10-2: Concurrent construction and operation of the proposed project and related projects in the geographic scope could result in cumulative short-term and long-term impacts.	None Required	Less than Significant Impact
Wildfire		
3.11-1: The proposed project could, 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.	<p>WF-1: Fire Prevention Measures. To reduce fire risk and maintain a fire safe worksite, the following Fire Prevention Measures would be implemented for the VWRP construction activities:</p> <ul style="list-style-type: none"> • Minimize combustible and flammable materials storage on site. • Store any combustible or flammable materials away from ignition sources. • Clear parking areas and fuel or oil storage areas of all grass and brush by a distance of at least 30 feet. • Keep evacuation routes free of obstructions. • Label all containers as to contents and store in the same location as flammable or combustible liquids. • Perform hot works according to fire safe practices and guidelines in a controlled environment and with fire suppression equipment at the job site. • Dispose of combustible waste promptly and according to applicable laws and regulations. • Report and repair all fuel leaks without delay. • Avoid overloading circuits and/or reliance on extension cords where other upgrades would be safer. • Turn off and unplug electrical equipment when not in use. • Restrict use of chainsaws, chippers, vegetation masticators, grinders, drill rigs, tractors, torches, and explosives to outside of the official fire season to the greatest extent feasible. When the above tools are used, water tenders equipped with hoses, shovels, Pulaskis, and axes shall easily be accessible to personnel. • Equip vehicles with a 3A-40BC Dry Chemical Fire Extinguisher, a 5-gallon backpack pump fire extinguisher, and a 48-inch round point shovel. 	Less than Significant Impact with Mitigation Incorporated

Impacts	Mitigation Measures	Significance after Mitigation
<p>3.11-2: The proposed project could expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes.</p> <p>3.11-3: Concurrent construction and operation of the proposed project and related projects in the geographic scope could result in cumulative short-term and long-term impacts.</p>	<p>WF-2: Red Flag Warning. Construction activities would be limited and precautions may be taken on site during periods of a Red Flag Warning, when conditions such as low humidity and high winds are present. Upon announcement of a Red Flag Warning, red flags will be prominently displayed at the VWRP Facilities entrance gate indicating to employees and contractors that restrictions are in place. Additionally, any “hot work” (work that could result in ignition sources or increase fire risk) or work conducted in close proximity to vegetation would be prohibited during Red Flag Warning conditions. Areas may be evacuated where personnel may be exposed to higher risks. If vehicles are required to be used during Red Flag Warning conditions, vehicles shall remain on paved roads.</p> <p>During significant emergency situations, an evacuation notice may be issued by the site manager or site safety officer. When an evacuation has been called, all site employees must gather at the designated assembly area and the site safety officer will account for all personnel. Once all employees are accounted for, vehicles will safely convoy from the site to safe zones, which are generally areas off site, away from the threat.</p> <p>None Required</p> <p>Implement Mitigation Measures WF-1 and WF-2.</p>	<p>Less than Significant Impact</p> <p>Less than Significant Impact with Mitigation Incorporated</p>

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CHAPTER 1

Introduction

1.1 Introduction

The Santa Clarita Valley Sanitation District (SCVSD or District) of Los Angeles County is proposing to implement the Valencia Water Reclamation Plant (VWRP) Middle Section Retaining Wall Ground Improvement Project (proposed project). The proposed project would help achieve long-term protection of the middle section of the VWRP boundary along the Santa Clara River (SCR) by installing an underground retaining wall structure to reinforce the existing middle section retaining wall. The proposed project would also include upgrades to two existing outfall structures and the addition of riprap along the southern portion of the VWRP wall.

1.2 Purpose of the Draft EIR

SCVSD is the lead agency pursuant to the California Environmental Quality Act (CEQA) and has prepared this Draft Environmental Impact Report (EIR) in compliance with CEQA of 1970 (as amended), codified at California Public Resources Code Sections 21000 et. seq., and the State CEQA Guidelines in the Code of Regulations, Title 14, Division 6, Chapter 3. The purpose of the Draft EIR is to provide the public and pertinent agencies with information about the potential effects on the local and regional environment associated with construction and operation of the proposed project. This Draft EIR describes the environmental impacts of the proposed project and suggests mitigation measures where necessary to avoid or reduce any significant impacts. The impact analyses are based on a variety of sources, including publicly available documents, agency consultation, technical studies, and field surveys.

SCVSD intends to use this EIR to consider implementation of the proposed project. SCVSD's Board of Directors, as the decision-making body for the lead agency, shall consider and certify prior to approving the proposed project that the Draft EIR has been completed in compliance with CEQA, and that the EIR reflects its independent judgment and analysis (CEQA Guidelines Section 15090[a]).

1.3 Draft EIR Organization

This Draft EIR has been organized into the following chapters:

- **Executive Summary.** This chapter summarizes the contents of the Draft EIR.
- **Chapter 1, Introduction.** This chapter discusses the CEQA process and explains the purpose of the Draft EIR.
- **Chapter 2, Project Description.** This chapter provides an overview of the proposed project, describes the need for and objectives of the proposed project, explains planning for construction and

operation of the proposed project, and presents a preliminary list of the agencies and entities, in addition to SCVSD, that would use this EIR in their consideration of specific permits and other discretionary approvals for the proposed project.

- **Chapter 3, Environmental Setting, Impacts, and Mitigation Measures.** This chapter describes the environmental setting and identifies the direct, indirect, and cumulative impacts of the proposed project for each of the following environmental topics: Air Quality, Biological Resources, Cultural Resources, Geology and Soils, Greenhouse Gas Emissions, Hazards and Hazardous Materials, Hydrology and Water Quality, Noise, Transportation, Tribal Cultural Resources, and Wildfire. This chapter also summarizes environmental topics for which no significant impact would occur. For the assessment of cumulative impacts, this chapter includes a list of past, current, and probable future projects to be considered together with the proposed project.
- **Chapter 4, Other CEQA Considerations:** This chapter discusses the significant irreversible environmental changes and growth-inducing impacts associated with the proposed project.
- **Chapter 5, Alternatives Analysis.** This chapter presents an overview of the alternatives development process, describes the alternatives to the proposed project that were considered, and describes potential impacts of feasible alternatives relative to those of the proposed project.
- **Chapter 6, Report Preparers.** This chapter identifies the key staff and the authors involved in preparing this Draft EIR.
- **Appendices:** The appendices include materials related to the NOP and scoping process (**Appendix A**), as well as technical studies that support the impact analyses, such as an Air Quality and Greenhouse Gas Emissions Calculations (**Appendix B**), Aquatic Resources Delineation Report and Biological Constraints Analysis (**Appendix C**), Cultural Resources Assessment Report (**Appendix D; Confidential**), Paleontological Resources Assessment Report (**Appendix E; Confidential**), Noise Data and Calculations (**Appendix F**), Tribal Cultural Resources Consultation (**Appendix G**), and Alternatives Analysis prepared for the project (**Appendix H**).

1.4 CEQA Environmental Review Process

1.4.1 CEQA Process Overview

The basic purposes of CEQA are to (1) inform decision makers and the public about the potential, significant adverse environmental effects of proposed governmental decisions and activities, (2) identify the ways those environmental effects can be avoided or significantly reduced, (3) prevent significant, avoidable and adverse environmental effects by requiring changes in projects through the use of alternatives or mitigation measures when feasible, and (4) disclose to the public the reasons why an implementing agency may approve a project even if significant unavoidable environmental effects are involved.

An EIR uses a multidisciplinary approach, applying social and natural sciences to make a qualitative and quantitative analysis of all the foreseeable environmental impacts that a proposed project would exert on the surrounding area. As stated in CEQA Guidelines Section 15151:

An EIR should be prepared with a sufficient degree of analysis to provide decision makers with information which enables them to make a decision which intelligently takes account of environmental consequences. An evaluation of the environmental effects of a proposed project need not be exhaustive, but the sufficiency of an EIR is to be reviewed in the light of what is reasonably feasible.

This Draft EIR has been prepared to comply with CEQA and the CEQA Guidelines and is to be used by local regulators and the public in their review of the potential significant adverse environmental impacts of the proposed project and alternatives, and mitigation measures that would minimize or avoid those potential environmental effects. SCVSD will consider the information presented in this Draft EIR, along with other factors, prior to considering and making any final decisions regarding the proposed project.

1.4.2 Notice of Preparation and Public Scoping

Pursuant to CEQA Guidelines Section 15082, the lead agency is required to send a Notice of Preparation (NOP) stating that an EIR will be prepared to the State Office of Planning and Research (OPR) and responsible and trustee agencies. The NOP must provide sufficient information in order for responsible agencies to make a meaningful response. At a minimum, the NOP must include a description of the project, location of the project, and probable environmental effects of the project (CEQA Guidelines Section 15082[a][1]). Within 30 days after receiving the NOP, responsible and trustee agencies and OPR shall provide the lead agency with specific detail about the scope and content of the environmental information related to that agency's area of statutory responsibility that should be included in this Draft EIR (CEQA Guidelines Section 15082[b]).

On November 28, 2023, SCVSD published an NOP of an EIR for a 39-day review period and circulated it to OPR and local, state, and federal agencies, including responsible and trustee agencies, as well as organizations and persons who expressed interest in the proposed project. The NOP provided a general description of the proposed project, a description of the proposed project area, and an overview of environmental topics that will be evaluated within the EIR. The NOP was made available online at the SCVSD website (<https://www.lacsd.org/documents/other/documents-for-public-review>). Hardcopies of the NOP were available at the City of Santa Clarita Valencia Branch Library, located at 23743 West Valencia Boulevard, Santa Clarita, CA 91355 and the Los Angeles County Sanitation Districts' Joint Administration Office at 1955 Workman Mill Road, Whittier, CA 90601. The NOP was also available online at the SCVSD website (<https://www.lacsd.org/documents/other/documents-for-public-review>). Five comments were received in response to the NOP. A copy of the NOP and comment letters are included in this Draft EIR in Appendix NOP.

1.4.3 Draft EIR

This Draft EIR has been prepared pursuant to the requirements of CEQA Guidelines Section 15126. This Draft EIR provides an analysis of reasonably foreseeable impacts associated with the construction and operation of the proposed project. The environmental baseline for determining potential impacts is the date of publication of the NOP for the proposed project unless otherwise indicated (CEQA Guidelines Section 15125[a]). The baseline setting for each environmental topic assessed in this Draft EIR describes the existing conditions as of the publication of the NOP. The impact analysis is based on changes to existing conditions that would result due to implementation of the proposed project.

In accordance with the CEQA Guidelines Section 15126, Chapter 3 of this Draft EIR describes the proposed project site and the existing baseline environmental setting, identifies potential short-term, long-term, and cumulative adverse environmental impacts associated with project implementation, and identifies mitigation measures for potentially significant adverse impacts. Significance criteria are defined at the beginning of each impact analysis section for each environmental topic analyzed in this Draft EIR.

In addition, Chapter 4 of this Draft EIR analyzes other types of environmental impacts required by CEQA that are not covered within Chapter 3 including: significant irreversible environmental changes that would be caused by the project and potential growth-inducing impacts. Chapter 5 of this Draft EIR provides an analysis of alternatives to the project.

1.4.4 Draft EIR Public Review

In accordance with Section 15105 of the CEQA Guidelines, this Draft EIR has been submitted to the OPR State Clearinghouse for review by state agencies. In addition, this Draft EIR has been circulated to federal, state, and local agencies and interested parties who may wish to review and provide comments on its contents. A minimum 45-day public review period is required for a Draft EIR submitted to the OPR State Clearinghouse. Please submit all comments to:

Santa Clarita Valley Sanitation District
Attn.: Mandy Huffman
1955 Workman Mill Road
Whittier, CA 90601
mandyhuffman@lacsdsd.org

Written comments may be submitted anytime during the 45-day review period.

1.4.5 Final EIR Publication and Certification

Once this Draft EIR public review period has ended, SCVSD will prepare written responses to all timely submitted comments. The Final EIR will be comprised of this Draft EIR, responses to comments received on this Draft EIR, and any changes or corrections to this Draft EIR that are made as part of the responses to comments. As the Lead Agency, SCVSD will make the Final EIR available for public review prior to it considering any final decision regarding approval of the proposed project (CEQA Guidelines Section 15089[b]). The Final EIR must be available to commenting agencies at least 10 days prior to certification (CEQA Guidelines Section 15088[b]).

Prior to considering the proposed project for approval, SCVSD will review and consider the information presented in the Final EIR and will decide whether to certify that the Final EIR has been adequately prepared in accordance with CEQA. Once the Final EIR is certified, the SCVSD Board of Directors may proceed to consider any final decisions regarding the proposed project (CEQA Guidelines Sections 15090, 15096[f]). Prior to approving the proposed project, SCVSD must make written Findings in accordance with Section 15091 of the CEQA Guidelines. In addition, SCVSD must adopt a Statement of Overriding Considerations (SOC) concerning each significant environmental effect identified in the Final EIR (if any) that cannot be fully mitigated to a less than significant level. If one is needed, then the SOC will be included in the record of the proposed project's approval and mentioned in the Notice of Determination (NOD) following CEQA Guidelines Section 15093(c). Pursuant to CEQA Guidelines Section 15094, SCVSD will file an NOD with the State Clearinghouse and Los Angeles County Clerk within five working days if the proposed project is approved.

1.4.6 Mitigation Monitoring and Reporting Program

CEQA Guidelines Section 15097 requires lead agencies to “adopt a reporting or monitoring project for the changes made to the project or conditions of project approval, adopted in order to mitigate or avoid significant effects on the environment.” The mitigation measures, if any, adopted as part of the Final EIR will be included in a Mitigation Monitoring and Reporting Program and implemented by SCVSD.

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CHAPTER 2

Project Description

2.1 Overview and Location

The Santa Clarita Valley Sanitation District (SCVSD or District) of Los Angeles County is proposing to implement the Valencia Water Reclamation Plant (VWRP) Middle Section Retaining Wall Ground Improvement Project (proposed project). SCVSD operates the VWRP, located at 28185 The Old Road in unincorporated Los Angeles County, California (**Figure 2-1**). The proposed project would help achieve long-term protection of the middle section of the VWRP boundary along the Santa Clara River (SCR) by constructing an underground retaining wall to reinforce the existing middle section retaining wall (**Figure 2-2**). The proposed project would also include upgrades to two outfall structures and the addition of riprap along the southern portion of the VWRP wall.

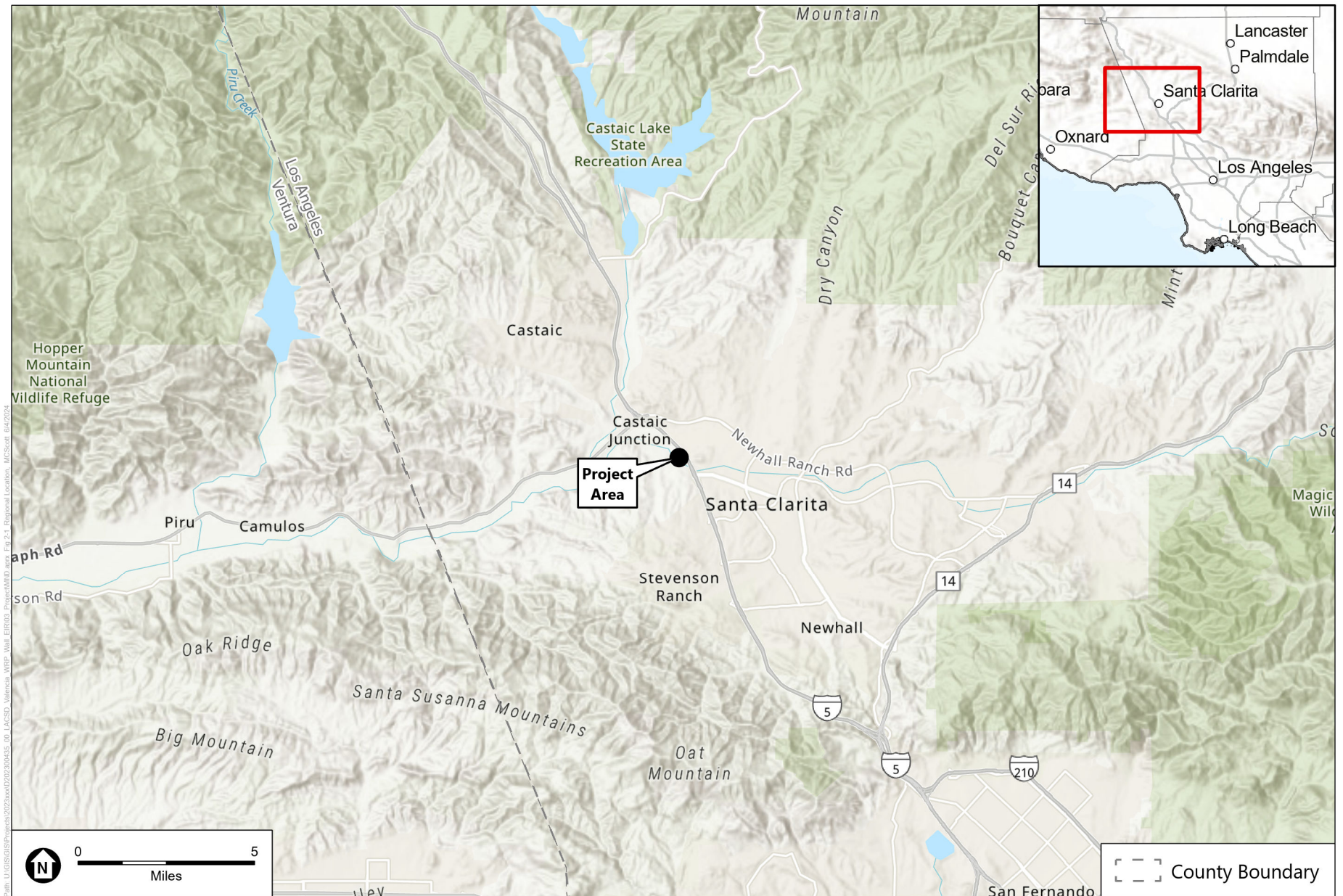
The VWRP is located in an urbanized area in unincorporated Los Angeles County. The project site is bound by The Old Road to the north and adjacent commercial businesses to the northeast, the Santa Clara River (SCR) to the west and south, and Six Flags Magic Mountain amusement park to the southwest beyond the SCR.

The SCR adjacent to the VWRP is part of the Santa Clara River Significant Ecological Area (SEA). In addition, areas surrounding the VWRP along its western boundary are part of a California Department of Fish and Wildlife (CDFW) Conservation Easement (**Figure 2-3**).

2.2 Project Background

The VWRP is one of two water reclamation plants owned by the SCVSD and serves the City of Santa Clarita and a portion of unincorporated Los Angeles County. Continuous operations of the VWRP are critical for the ability of the SCVSD to provide essential service to its customers. Recent studies identified that scour of the Santa Clara River under a Capital Flood may erode materials to the point that facilities of the VWRP may be damaged or destroyed. Specifically, an approximately 1000-foot-long middle section of the facility boundary along the river has been assessed to provide inadequate scour protection, to the point that the existing property edge retaining wall may be undermined by as much as 25 to 35 feet.

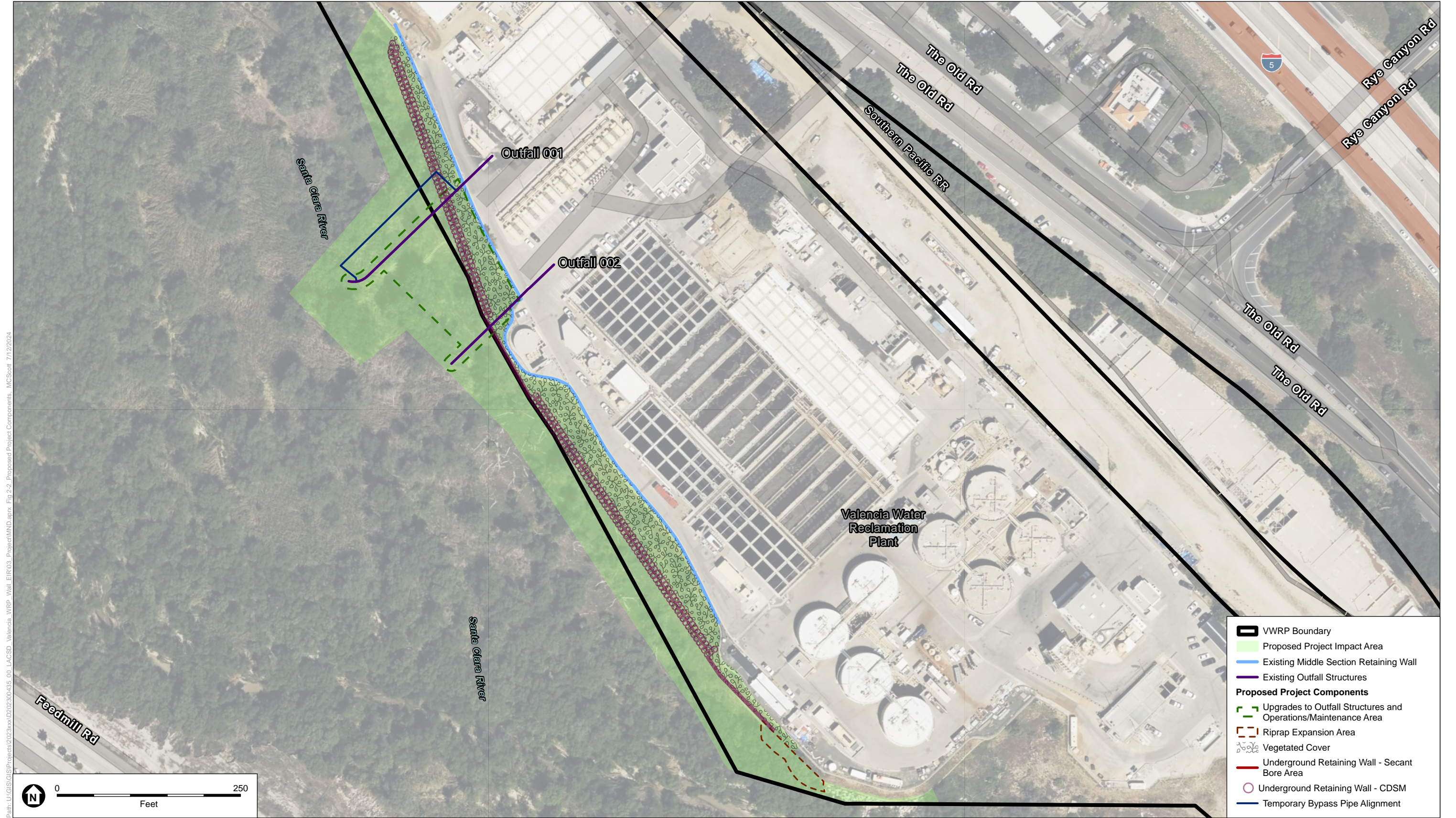
An Alternative Selection Report was prepared in 2023 (Geosyntec 2023) (Appendix H) and assessed three possible alternatives for a new structure along the wall's middle section that could protect the VWRP during Capital Flood scour levels and a design level earthquake. It was determined that the first and second Alternatives would impair the ability to maintain continuous operations during construction due to the proximity to the VWRP's treatment facilities and key utility corridors and required relocation of existing process structures and utilities. Therefore, Alternative 3 was chosen as the proposed project since it would not disrupt the VWRP's operations.



SOURCE: ESA, 2024

VWRP Middle Section Retaining Wall Ground Improvement Project

Figure 2-1
Regional Location



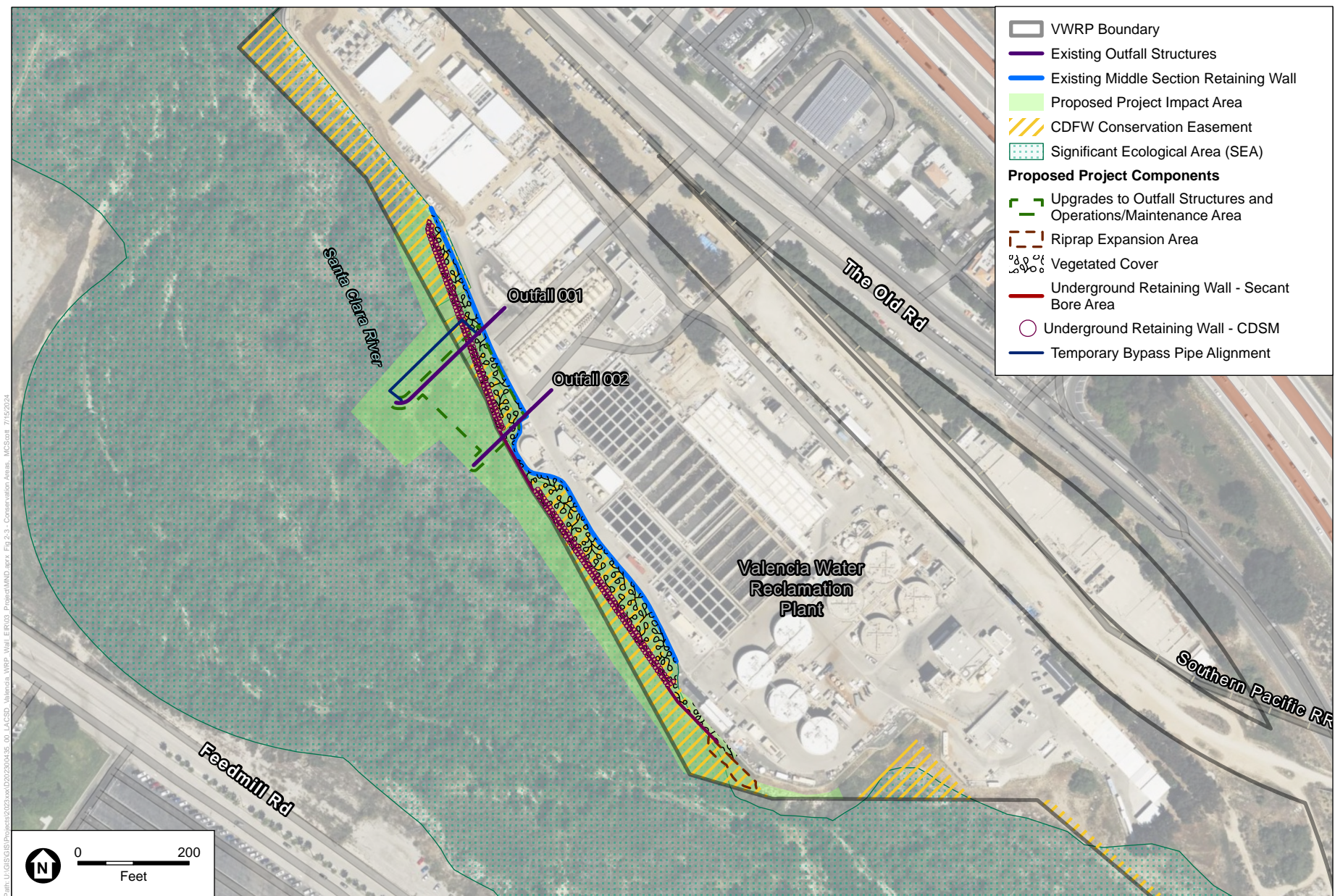
Path: U:\GIS\Projects\2023\20230435_00_LACSD_Valencia_WRP_Wall_EIR\03_Project\WIND.aprx Fig 2-2 Proposed Project Components, MScott 7/12/2024

SOURCE: ESA, 2024

VWRP Middle Section Retaining Wall Ground Improvement Project

Figure 2-2
Proposed Project Components

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SOURCE: ESA, 2024

VWRP Middle Section Retaining Wall Ground Improvement Project

Figure 2-3
Conservation Areas

2.3 Project Objectives

The main objective of the proposed project is to achieve long-term protection of the middle section of the VWRP boundary along the Santa Clara River in case of a future Capital Flood scour event. The objectives of the proposed project are as follows:

- Construct a structure that can withstand Capital Flood scour levels (PACE, 2016) with limited impact to the VWRP area;
- Construct a structure that can withstand a design level earthquake following the Capital Flood scour levels with limited impact to the VWRP area;
- Allow uninterrupted VWRP operation with controlled impact from construction activities;
- Achieve effective tie-ins with the existing deep-scour protection retaining wall on the south and north ends of the proposed construction;
- Improve the condition of discharge outfall sections that will be affected by construction of the proposed structure;
- Maintain permanent improvements within the property limits of the VWRP;
- Minimize permanent impacts to the vegetated area to the riverside of the existing retaining wall;
- Minimize temporary construction impacts to the existing vegetated area riverside of the existing retaining wall;
- Minimize the disturbance of the recently revegetated area alongside the Advanced Water Treatment Facility retaining wall; and
- Develop a cost-effective solution.

2.4 Project Description

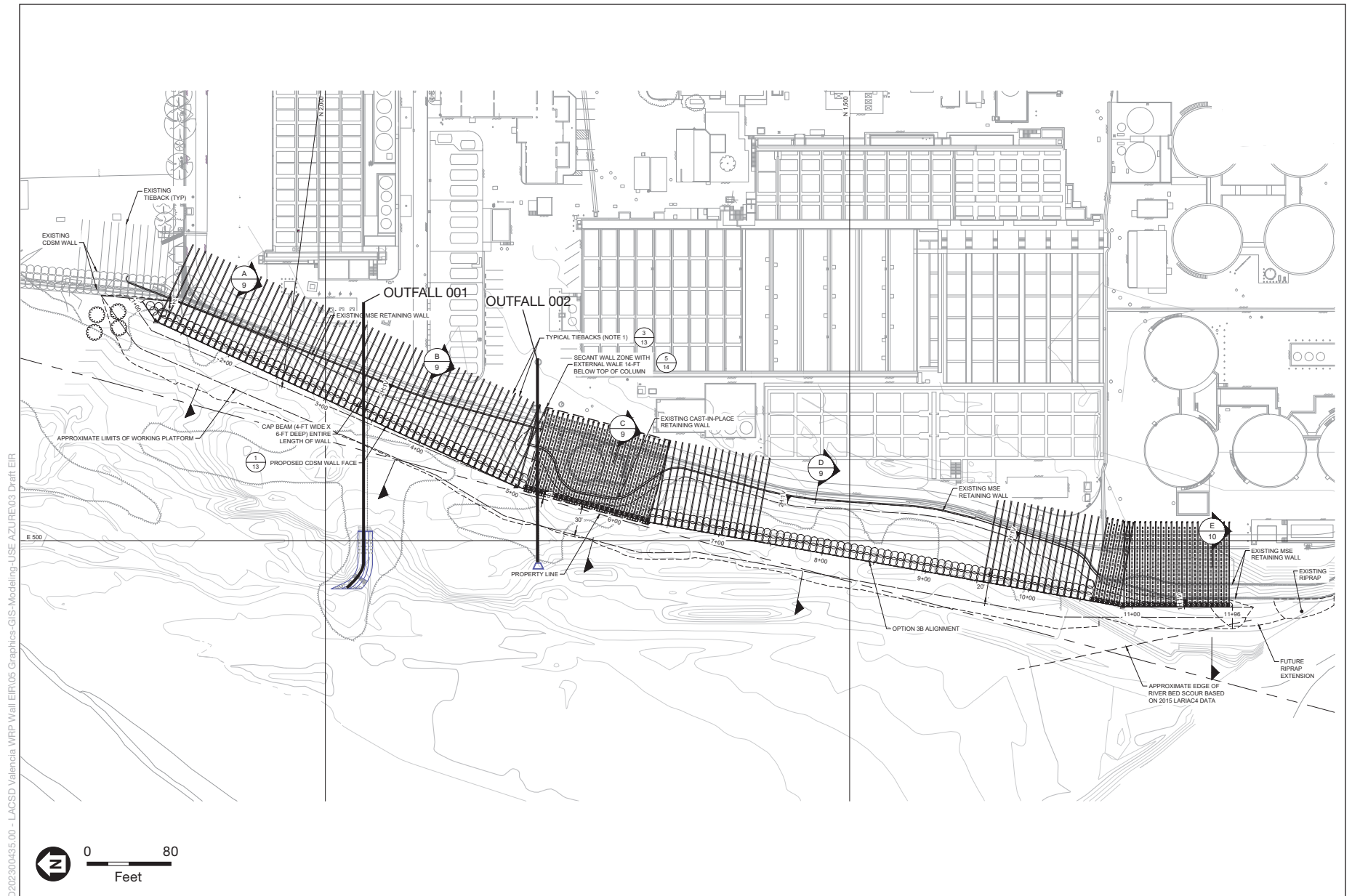
The proposed project would include reinforcement of the existing middle section retaining wall along the southwestern side of the VWRP, upgrades to two existing outfall structures, and the addition of riprap along the southern portion of the VWRP wall. The three project components are further described below. **Figure 2-4** provides a depiction of preliminary plans for the proposed project components.

The proposed project would impact approximately 3.26 acres just outside of the VWRP. The proposed project would not require any road closures during construction and no new permanent lighting would be required for the proposed new structures.

2.4.1 Retaining Wall

The existing wall along the middle section is primarily a Mechanically Stabilized Earth (MSE) wall with geogrid reinforcement. An existing cast-in-place reinforced concrete wall is in the central portion at the Filter Backwash Equalization Tank (FBET) area that protrudes outside of the otherwise relatively straight MSE wall alignment. The heights of walls along this middle portion of the VWRP vary between 12 and 21 feet, of which approximately 5 to 10 feet is buried.

The proposed project would construct an underground retaining wall to prevent scour of the existing middle section wall. The underground retaining wall would be constructed in an alignment as shown on Figure 2-4.



SOURCE: Geosyntec Consultants, 2022

VWRP Middle Section Retaining Wall Ground Improvement Project

Figure 2-4
Preliminary Project Plans

An anchored Cement Deep Soil Mixing (CDSM) structure would be constructed and was previously used during construction of the northern portion of the wall along the VWRP boundary and would provide structure compatibility along the middle section portion of the wall. A secant pile wall with anchors would be utilized on portions of the alignment where using anchored CDSM structures may not be feasible due to limits of the work area or it would require crossing the property line, such as the central portion of the wall and the southern end of the wall.

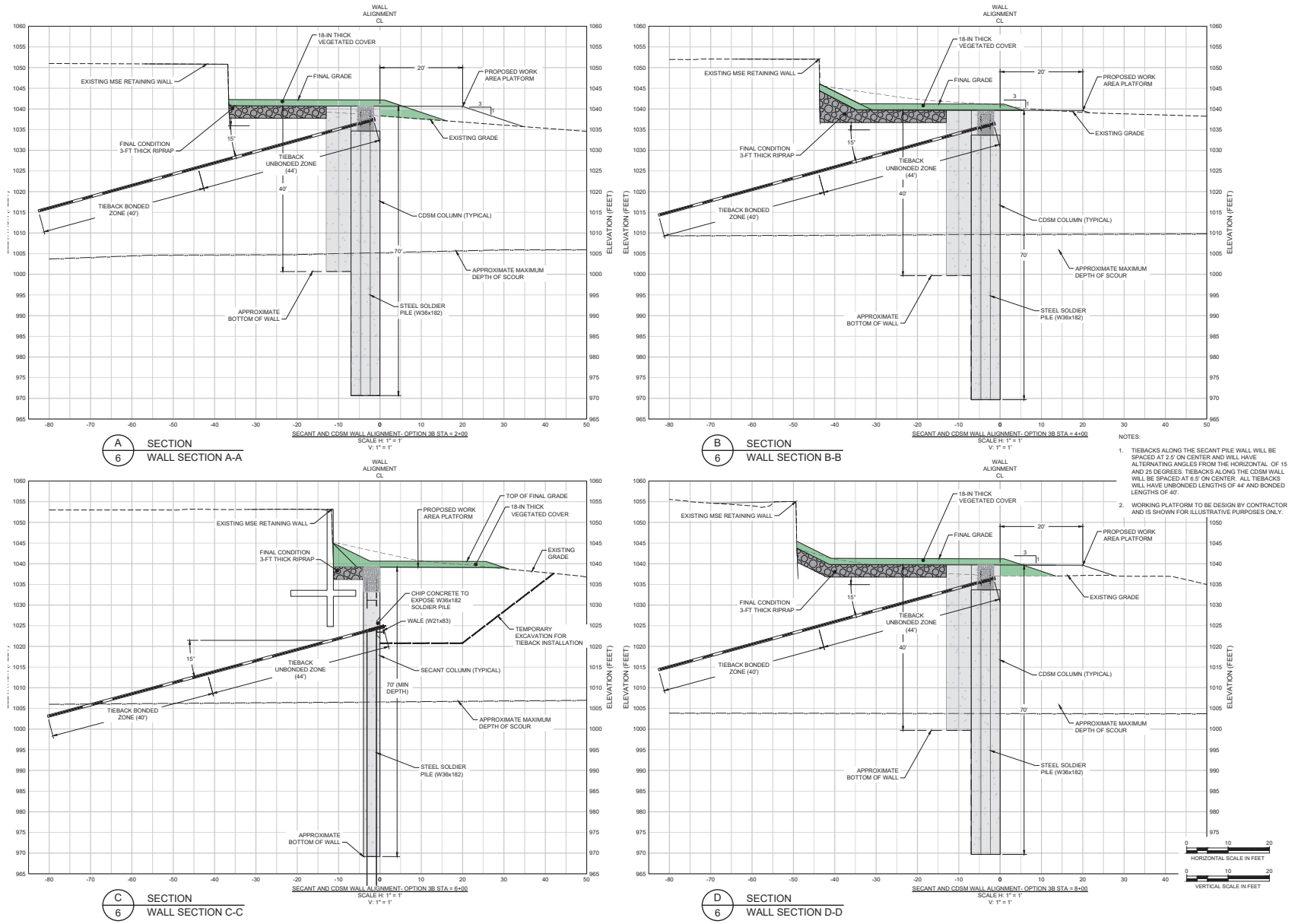
CDSM piles would be installed in two rows and would extend approximately 70 feet below grade. In addition, a three-foot thick layer of riprap would be placed between the new CDSM/secant piles and the existing MSE wall. Once constructed, a layer of approximately 18 inches of soil would be placed above the CDSM and riprap. The impact area would be revegetated. **Figure 2-5** shows a typical cross section of an anchored CDSM and/or secant wall. The proposed CDSM/secant piles underground retaining wall would cover a surface area of approximately 0.87 acre. Some regrading would be required.

As shown on Figure 2, riprap is located along the southern portion of the VWRP wall, which was added due to scour within this location. In order to address scour protection on the south end of the wall where progressive scour is advancing along the deeper MSE wall and may progress past the limits of the deeper MSE wall, the proposed project would extend this riprap further to the north by placing approximately 0.05 acre of additional riprap to connect to the proposed CDSM/secant pile area. The addition of riprap would occur near the Santa Clara River, but would remain outside of the river's flow channel.

2.4.2 Outfall Structures

The VWRP has two outfalls that penetrate the existing MSE wall and discharge into the Santa Clara River. Discharge Outfall 001, the northern outfall structure, is a 48-inch diameter reinforced concrete pipe that is used to discharge tertiary treated water into the Santa Clara River. Discharge Outfall 002, the southern outfall structure, is a 27-inch diameter reinforced concrete pipe that is used to discharge stormwater overflow during large storm events and treated water when needed to maintain proper VWRP operations. During a small storm, stormwater that falls on the VWRP is collected into the VWRP's stormwater system, gets routed into the treatment process and treated to tertiary levels, and is then discharged into the Santa Clara River via Discharge Outfall 001. During a large storm event, stormwater is also initially routed and treated as described above; however, depending on the intensity of the storm, stormwater may eventually overflow the stormwater system and discharge directly into the Santa Clara River via Discharge Outfall 002 to prevent overwhelming the VWRP's treatment process. Discharge Outfall 001 is currently infiltrated by vegetation and roots, which caused pipe joint separation. A condition inspection of Discharge Outfall 002 indicated a similar presence of infiltrating vegetation and roots as well as soil and debris settlement, both of which cause pipe backflow conditions.

Prior to construction along the outfall structures, a temporary flow bypass system would have to be connected in order to maintain gravity flow conditions and VWRP operations. A temporary bypass pipe would be connected to an existing, buried portion of Discharge Outfall 001 and redirected towards the riverbank to discharge into the existing concrete channel. A section of Discharge Outfall 001 that would pass through the proposed underground retaining wall structure would be temporarily removed and replaced. The Discharge Outfall 001 would then be rehabilitated by sliplining with 42-inch diameter fiberglass reinforced plastic pipe. For Discharge Outfall 002, the section within the proposed retaining wall structure and the entire section downstream of the proposed wall would also be demolished and replaced, including the headwall structure at the discharge point.



SOURCE: Geosyntec Consultants, 2022

WRP Middle Section Retaining Wall Ground Improvement Project

Figure 2-5
Typical Retaining Wall Cross Section

An area surrounding both outfall structures would be permanently cleared to allow access to the outfall structures and to reduce impacts to the new structures from infiltrating vegetation and roots. The new maintenance area surrounding Discharge Outfalls 001 and 002 would encompass approximately 0.57 acre.

2.5 Construction

2.5.1 Construction Schedule

The proposed project would take approximately 20 months to construct. Construction is anticipated to begin in February 2026 and end in October 2027. Construction of the retaining wall and outfall structures would occur simultaneously.

Work would be anticipated to occur between 7:00 a.m. and 4:00 p.m., Monday through Friday. Nighttime construction would only be required to connect and disconnect the temporary flow bypass system from the Discharge Outfall 001. Nighttime construction is necessary to take advantage of low flow conditions in the VWRP during that time.

2.5.2 Construction Staging and Access

Construction of the proposed project would require, but not be limited to, the equipment listed on **Table 2-1**. Construction staging areas would be identified by the contractor for laydown and soil stockpiling within the VWRP and within the proposed project impact areas, if needed. Construction equipment would be temporarily staged on the riverside of the existing retaining wall and/or within the VWRP, and equipment fueling would occur within the proposed work area.

The access point to the construction area riverside of the existing retaining wall is expected to be the existing access ramp at about the central point of the project area. This is just north of the point where the FBET structure and surrounding cast-in-place reinforced concrete retaining wall protrude from the MSE wall alignment. The access ramp is about 15 feet wide. Some grading, temporary facing removal, and possible disassembly of the portion of the MSE may be required to provide sufficient width, adequate grade, and sufficient bearing capacity for the construction equipment. A working platform would be cleared within the proposed impacted area to allow access for large-sized equipment.

2.5.3 Retaining Wall and Outfall Structures

Proposed total construction truck trips by construction phase are shown on **Table 2-2**. On average, there would be approximately 8 hauling trucks and 4 vendor truck trips per day during the Retaining Wall/Outfall construction phase. The proposed project would require the removal of vegetation surrounding both outfall structures prior to the start of construction and of areas along the temporary construction impact area. Vegetation removal would be determined during final design and would be reduced to the minimum extent feasible.

Sawcutting would be required during demolition of both outfall structures. Excavation related to demolition and construction of both outfall structures would be approximately 18 feet in depth; excavated soils would be reused onsite and no export of soils would be required.

**TABLE 2-1
PROPOSED EQUIPMENT BY CONSTRUCTION PHASE**

Equipment Type	Total
Demolition	
Rubber Tiered Dozers	2
Concrete/Industrial Saws	2
Excavators	2
Backhoe	1
Jackhammer	1
Grading/Excavation	
Excavator	3
Grader	1
Off-Highway Truck	2
Tractor/Loader/Backhoe	1
Crane	1
Retaining Wall/Outfall Structures	
Bore/Drill Rig	2
Cement Batch Plant with Silos	1
Crane	1
Excavator	1
Grader	1
Off-Highway Truck	1
Tractor/Loader/Backhoe	2
SOURCE: SCVSD 2024	

**TABLE 2-2
CONSTRUCTION TRUCK TRIPS**

Phase Name	Total Work Days	Total Worker Trips/Day	Total Vendor Trips/Day	Total Haul Trips (total per phase)
Demolition	49	10	0	46
Grading/Excavation	131	16	0	857
Retaining Wall/Outfall	340	20	8	2,730
SOURCE: SCVSD				

Earthwork would require a net import of approximately 4,500 cubic yards (cy) of concrete, 5,000 tons of cement, and 6,000 cy of riprap for construction of the underground retaining wall and the riprap area along the southern portion of the project area. The proposed project would excavate to a maximum depth of approximately 70 feet below grade and approximately four feet wide for installation of a secant pile wall (SPW) and approximately 40 to 70 feet deep and 8-foot diameter individual columns for Cement Deep Soil Mixing (CDSM). This would result in approximately 19,000 cy of soil spoils due to CDSM

activities to be exported offsite. Cement would be mixed on-site at a concrete batch plant. The outfall work would include import of 113 cy of granular bedding material.

In addition to excavation related to demolition and construction of the outfall structures, excavation would also be required approximately 15 feet north of the existing Outfall 001 in order to create trenches for the temporary bypass pipe alignment. Excavation depth would be approximately 10 feet below grade towards the discharge location and approximately 10 feet wide, with the total length of the bypass pipe alignment at 251 feet. This could result in an additional approximately 580 cy of soil spoils. However, due to the temporary nature of the bypass piping which will be removed after completion, no soil import or export is expected at this time.

Construction would move at a pace of approximately 1-2 secant piles or 4 to 5 CDSM columns per day. Cement would be imported and mixed onsite at a cement batch plant and used for the CDSM construction. The batch plant would be placed within the VWRP. For secant piles, concrete would be used and additional aggregate would be imported. The outfall structure replacement pieces would be cast by a manufacturer and delivered intact to the project site. Construction for both the retaining wall and the outfall structures would require approximately 10 workers per day.

Nighttime construction would be required for approximately four nights during construction activities associated with the outfall structures, and connection and disconnection of the temporary flow bypass system. Work would occur during the dry season and nighttime lighting would be shielded and directed towards the work area. No nighttime construction would be required for the retaining wall component.

2.6 Operation and Maintenance

The VWRP has two outfalls that penetrate the existing MSE wall and discharge into the Santa Clara River. Discharge Outfall 001, the northern outfall structure, is used to discharge tertiary treated water into the Santa Clara River. Discharge Outfall 002, the southern outfall structure, is used to discharge stormwater overflow during large storm events and treated water when needed to maintain proper VWRP operations. To prevent future pipe infiltration and joint separation, regular vegetation and root removal for preventative maintenance purposes would occur more regularly at both outfall structures. The SCR riverbed area would be inspected once every 6 to 12 months to monitor the amount of vegetation growth. Operational maintenance would occur to ensure both outfalls are accessible. Routine maintenance would include tree trimming and vegetation clearing. All maintenance would occur outside of the nesting bird season. Operation of the VWRP and use of the outfall structures would not change as a result of the proposed project and no new employees would be required. No additional consumption of energy would be required.

2.7 Proposed Project Approvals

Table 2-3 presents a preliminary list of the agencies and entities in addition to SCVSD that would use this EIR in their consideration of specific permits and other discretionary approvals that may apply to this project:

**TABLE 2-3
REGULATORY PERMITS AND AUTHORIZATIONS**

Agency	Type of Approval	Needed for
California Regional Water Quality Control Board, Los Angeles Region	Construction General Permit 401 Water Quality Certification	Construction-related stormwater discharges Discharge of dredge or fill material into waters of the State if any
California Department of Fish and Wildlife	Lake or Streambed Alteration Agreement (Section 1602 of Fish and Game Code)	Activity that may substantially modify a river, stream, or lake if any
US Army Corps of Engineers	404 Permit	Discharge of dredge or fill material into waters of the US, if any

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CHAPTER 3

Environmental Setting, Impact Analysis, and Mitigation Measures

3.0 Introduction to the Analysis

In compliance with the California Environmental Quality Act (CEQA) Guidelines Sections 15125 and 15126, Chapter 3 of this Draft Environmental Impact Report (EIR) provides an analysis of the potential significant environmental effects of the Valencia Water Reclamation Plant (VWRP) Middle Section Retaining Wall Ground Improvement Project (proposed project).

The following environmental topics are assessed in detail in this chapter in accordance with CEQA Guidelines Appendix G:

- Air Quality
- Biological Resources
- Cultural Resources
- Geology and Soils
- Greenhouse Gas Emissions
- Hazards and Hazardous Materials
- Hydrology and Water Quality
- Noise
- Transportation
- Tribal Cultural Resources
- Wildfire

The CEQA Guidelines Section 15128 requires that an EIR “contain a statement briefly indicating the reasons that various possible significant effects of a project were determined not to be significant and therefore were not discussed in detail in the EIR.” The following environmental topics from CEQA Guidelines Appendix G are not discussed in detail in this Draft EIR because less than significant impacts or no impacts would occur as a result of implementation of the proposed project and were covered in an Initial Study (Appendix A):

- Aesthetics
- Agriculture and Forestry Resources
- Energy
- Land Use and Land Use Planning
- Mineral Resources
- Population and Housing
- Public Services
- Recreation
- Utilities and Service Systems

The effects found not to be significant associated with these environmental topics are explained further below in Section 3.1, *Effects Found Not to Be Significant*.

3.0.1 Format of the Environmental Analysis

This Draft EIR provides analysis of impacts for all environmental topics covered under Appendix G of the CEQA Guidelines and that have the potential to result in significant effects due to proposed project implementation. “Significant effect” is defined by CEQA Guidelines Section 15382 as “a substantial, or potentially substantial, adverse change in any of the physical conditions within the area affected by the project including land, air, water, minerals, flora, fauna, ambient noise, and objects of historic or aesthetic significance. An economic or social change by itself shall not be considered a significant effect on the environment. A social or economic change related to a physical change may be considered in determining whether the physical change is significant.”

Sections 3.1 through 3.11 discuss the environmental impacts that may result with approval and implementation of the proposed project. The format of the environmental analysis for each environmental topic included in Sections 3.1 through 3.11 includes an environmental setting, regulatory setting, and impact analysis and mitigation measures (if required).

Environmental Setting

The assessment of each environmental topic begins with the relevant baseline setting information that is needed to provide context for the impact analysis that follows. Extraneous setting information that does not shed light on the impact analysis is not included in this Draft EIR (CEQA Guidelines Section 15125[a]).

In accordance with CEQA Guidelines Section 15125(a), the environmental setting contains a description of the regional and local physical environmental conditions in the proposed project vicinity at the time of the publication of the Notice of Preparation (NOP). This environmental setting constitutes the baseline physical condition against which the implementation of the proposed project is assessed in order to determine whether a significant environmental impact would occur (CEQA Guidelines Section 15126.2[a]).

This Draft EIR uses November 2023 as the baseline year against which proposed project impacts are compared. This baseline was selected to reflect the physical environmental conditions at the time the NOP was published.

Regulatory Framework

Where the project area and its surroundings fall within the jurisdiction of federal, State, and local regulatory agencies, the proposed project would be subject to the laws, rules, regulations, and policies of those agencies. These regulations are intended to guide development, reduce adverse effects on sensitive resources, and/or offer general guidance on the protection of such resources. The regulatory setting summarizes the applicable laws, rules, regulations, and policies for the proposed project. These rules may also set the standards, in the form of significance criteria or thresholds of significance as discussed below, by which the potentially significant impacts of the proposed project are evaluated.

Significance Threshold and Criteria

This Section presents the significance criteria against which potential impacts are evaluated. As defined by CEQA Guidelines Section 15064.7(a), thresholds of significance are an identifiable quantitative,

qualitative, or performance standard for the assessment of a particular environmental impact. Significance criteria are included for each environmental topic.

Determining the severity of project impacts is fundamental to achieving the objectives of CEQA. The level of significance for each impact examined in this Draft EIR was determined by considering the predicted magnitude of the impact to baseline environmental conditions against the applicable threshold. Thresholds were developed using criteria from the CEQA Guidelines and Appendix G Checklist.

Impact and Mitigation Measures

Impact Analysis

This Section provides an analysis of the potential environmental impacts that could result from implementation of the proposed project. This Draft EIR addresses the direct and indirect impacts associated with implementation of the proposed project, including short-term and long-term impacts. The impact analysis may include a summary or description of methodologies used.

The level of significance for each environmental impact examined in this Draft EIR is determined by considering the predicted magnitude of the impact in relation to the baseline environmental setting and assuming implementation of applicable regulatory requirements, measured against the significance criterion. Based on the significance criterion, the significance of each potential environmental impact is determined according to the following categories:

- **Significant and Unavoidable:** A significant and unavoidable impact is a substantial adverse effect on the environment that cannot be reduced to below a significance threshold given reasonably available and feasible mitigation measures. A project with significant and unavoidable impacts could still proceed, but SCVSD would be required to prepare a Statement of Overriding Considerations, pursuant to CEQA Guidelines Section 15093, explaining why SCVSD would proceed with the project in spite of the potential for a significant environmental impact. In addition, CEQA Guidelines Section 15126.6 requires an analysis of project alternatives, including the no-project alternative as well as other feasible alternatives, that would avoid or substantially lessen any of the significant effects of a project.
- **Less than Significant Impact with Mitigation:** A potentially significant impact occurs if the proposed project could result in a potentially substantial adverse change in the physical conditions of the environmental topic being evaluated. If such a determination is made, reasonably available and feasible mitigation measures must be considered if they would avoid or substantially reduce the significant impact. An impact that can be reduced to below the significance threshold with such mitigation measures is considered less than significant with mitigation. Such an impact requires findings to be made under Section 15091 of the CEQA Guidelines.
- **Less than Significant Impact:** A less than significant impact is an impact that may be adverse, but does not exceed the significance threshold and does not require mitigation measures. However, mitigation measures that could further lessen the environmental effect may be suggested if readily available and easily achievable.
- **No Impact:** A no impact determination would occur if the project would not result in a substantive change to the environmental topic that is being evaluated.
- **Beneficial Impact:** An effect that would enhance existing environmental conditions or reduce existing environmental problems or hazards.

Mitigation Measures and Significance Determination

Mitigation measures are recommended for any identified potentially significant impacts as a result of the proposed project. The significance determination provides the level of significance after the implementation of recommended mitigation measures, if applicable, based on the categories described above.

3.0.2 Effects Found Not to Be Significant

The following environmental topics are not discussed in detail in this Draft EIR because less than significant impacts or no impacts would occur as a result of implementation of the proposed project and were covered in an Initial Study (Appendix A).

Aesthetics

The proposed project would not have a substantial adverse effect on a scenic vista.

The proposed improvements would not change the current views to and from any scenic vistas, as construction would be temporary, and permanent vegetation removal would be limited to the maintenance area around the existing outfall structures. The proposed improvements would not be visible from a designated or otherwise identified scenic vista within the County. Therefore, impacts would be less than significant.

The proposed project would not substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway.

There are no designated scenic highways near the proposed project site and the proposed improvements would not be visible to the public from the portion of I-5 that is identified as “Eligible for State Scenic Highway.” Therefore, impacts would be less than significant.

The proposed project would not substantially degrade the existing visual character or quality of public views of the site and its surroundings, or conflict with applicable zoning and other regulations governing scenic quality.

The VWRP and the project site are designated as Industrial (M) land use and zoned as A-2-5, Heavy Agricultural. Work would occur along the VWRP’s existing wall and along two existing outfall structures and would be consistent with the character of the existing site, which is an industrial use. Furthermore, the proposed project components would be mainly installed underground for structural support or replacement and rehabilitation of existing structures consistent with the VWRP. While permanent vegetation removal would be required, it would be limited to the maintenance area around the existing outfall structures. If needed, SCVSD would undergo the County’s Site Plan and Design review to ensure that the proposed project does not conflict with applicable zoning and other regulations governing scenic quality. Therefore, impacts would be less than significant.

The proposed project would not create a new source of substantial light or glare which would adversely affect daytime or nighttime views in the area.

The project site is characterized by moderate ambient nighttime lighting levels due to the developed nature of the area, existing VWRP, as well as from adjacent properties. Artificial light sources from the

on-site uses and other surrounding properties include interior and exterior lighting for security, parking, and illuminated signage. Nighttime lighting would be required during approximately four days of construction for connection and disconnection of the bypass line for the outfall structure component. All outdoor lighting would be subject to applicable regulations contained within the Los Angeles County Municipal Code, as applicable and would be shielded and pointed away from the surrounding undeveloped area to the extent feasible. Compliance with these regulations and the short-term, temporary nature of the impact (approximately two days) would not result in a new source of substantial light and impacts would be less than significant. Therefore, impacts would be less than significant.

Agricultural and Forestry Resources

The proposed project would not convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use.

The project site does not contain agricultural uses or related operations and is not located on designated Prime Farmland, Unique Farmland, or Farmland of Statewide Importance as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program. Furthermore, the Los Angeles County General Plan does not identify the project site as an area designated for agriculture use. No impact would occur.

The proposed project would not conflict with existing zoning for agricultural use, or a Williamson Act contract.

Per the Los Angeles County Code, no portion of the project site or surrounding land uses are zoned for agriculture and no nearby lands are enrolled under the Williamson Act. Therefore, no impact would occur.

The proposed project would not conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g)).

No forest land or timberland zoning is present on the project site or in the surrounding area. As such, the proposed project would not conflict with existing zoning for forest land or timberland. Therefore, no impact would occur.

The proposed project would not result in the loss of forest land or conversion of forest land to non-forest use.

No forest land exists on the proposed project site or in the surrounding area. As such, the project would not result in the loss of forest land or conversion of forest land to non-forest use. Therefore, no impact would occur.

The proposed project would not 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.

Since there are no agricultural uses or related operations on or near the project site, the project would not involve the conversion of farmland to other uses, either directly or indirectly. Therefore, no impact would occur.

Energy

The proposed project would not result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation.

Construction would utilize transportation fuel energy only for necessary onsite activities and to transport construction materials and demolition debris to and from the proposed project site. Idling restrictions and the use of cleaner, energy-efficient equipment would result in less fuel combustion and energy consumption and, thus, reduce the proposed project's construction-related energy use. Therefore, impacts associated with transportation fuels for construction would be less than significant. The proposed project would include improvement to an existing retaining wall and existing outfall structures. No energy consumption would be included as part of the proposed project's operations. Therefore, impacts associated with operations of the proposed project would be less than significant.

The proposed project would not conflict with or obstruct a state or local plan for renewable energy or energy efficiency.

The proposed project's construction equipment used would be consistent with the energy standards applicable to construction equipment including limiting idling fuel consumption and using contractors that comply with applicable CARB regulatory standards that affect energy efficiency. Furthermore, the proposed project would be consistent with the Advanced Clean Cars and Mobile Source Strategy, which is instituted to reduce mobile source emissions over time. Therefore, impacts would be less than significant. The proposed project would include improvements to an existing retaining wall and existing outfall structures. No energy consumption would occur as part of the proposed project's operations. Therefore, impacts associated with the operations of the proposed project would be less than significant.

Land Use and Planning

The proposed project would not physically divide an established community.

The proposed project would include upgrades and rehabilitation to existing structures associated with the VWRP along the plant boundary. Therefore, implementation of the proposed project would not physically divide an established community. No impacts would occur.

The proposed 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.

The proposed project would not result in any changes to the existing land use at the project site, and operations would be similar to existing conditions. The proposed project is an underground retaining wall

improvement and upgrades to two existing outfall structures and would not conflict with land use plans, policy or regulations. No impacts would occur, and no further analysis of this environmental issue will be provided in the Draft EIR. Impacts associated with the Significant Ecological Area impacts are covered in Section 3.2, *Biological Resources* of this Draft EIR.

Mineral Resources

The proposed project would not result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state.

The proposed project involves ground improvement of an existing retaining wall and existing outfall structures just west of the boundary of the VWRP; no mineral extraction or other mining operations currently occur within the project site. The proposed project would not result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state. Therefore, no impacts would occur.

The proposed project would not result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan.

The proposed project involves ground improvement of an existing retaining wall and existing outfall structures just west of the boundary of the VWRP; no mineral extraction or other mining operations currently occur within the project site. The proposed project would not result in the loss of availability of a known mineral resource that would result in the loss of a mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan. Therefore, no impacts would occur.

Population and Housing

The proposed project would not 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 include construction of or impacts to new homes or businesses and would not result in the extension of public roads or other infrastructure. The proposed project includes improvement of existing facilities associated with the VWRP and would not induce growth. As such, the proposed project would not contribute to a substantial increase in unplanned population growth, and no impact would occur.

The proposed project would not displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere.

The proposed project site encompasses an existing wastewater treatment facility in a built-out, urbanized area. No housing exists on the proposed project site and the project would occur along the perimeter of the VWRP. Therefore, the proposed project would not displace a substantial number of existing housing units or people, necessitating the construction of replacement housing elsewhere. Therefore, no impact would occur.

Public Services

The proposed project would not result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for fire protection services.

The proposed project would maintain adequate emergency vehicle access to the project site during construction and operation. As such, fire protection would not be significantly altered through implementation of the proposed project and impacts would be less than significant.

The proposed project would not result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for police protection services.

Due to the temporary nature of the construction activities, these jobs are anticipated to be filled by the local workforce. The proposed project involves the improvement of existing facilities associated with the existing VWRP. Therefore, the proposed project would not result in a direct or indirect increase in population that would contribute to substantial adverse physical impacts associated with police protection and impacts would be less than significant.

The proposed project would not result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for schools.

The proposed project site is located within an existing water reclamation plant. As previously detailed, the proposed project does not include the development of new homes or businesses that would result in the generation of students. Therefore, the proposed project would not result in substantial adverse physical impacts associated with the need for new or physically altered school facilities. As such, no impact would occur.

The proposed project would not result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for parks.

The proposed project would not alter operations at the existing water reclamation plant. The proposed project would not directly or indirectly induce population growth requiring additional parks. Therefore, the proposed project would not result in substantial adverse physical impacts associated with the need for new or physically altered park facilities and impacts would be less than significant.

The proposed project would not result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for other public facilities.

The proposed project includes upgrades to the VWRP's retaining wall and outfall structures, and would not induce population growth. No additional public services would be required by the proposed project. Therefore, the proposed project would not result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities and no impact would occur.

Recreation

The proposed project would not increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated.

As the proposed project would not include residential uses, it would not result in increased use of recreational facilities. Project employees are not anticipated to use nearby recreational facilities to an extent that would cause or accelerate its substantial physical deterioration. Therefore, no impacts to neighborhood and regional parks or other recreational facilities would occur.

The proposed project would not include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment.

The proposed project would not include the construction or expansion of recreational facilities. In addition, the proposed project would not include residential uses which would require the construction or expansion of recreation facilities. Therefore, no impacts related to the adverse physical effect on the environment due to the construction or expansion of recreation facilities would occur.

Utilities and Service Systems

The proposed project would not require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects.

Water

No new sources of water supply, such as groundwater, are required to meet the proposed project's water demand. Construction-related water usage is not expected to have an adverse impact on available water supplies, and impacts would be less than significant. Operational activities would not change from existing conditions. Therefore, operation-related water usage would not have an adverse impact on available water supplies, and impacts would be less than significant.

Wastewater Treatment

Construction activities for the proposed project would not result in wastewater generation as construction workers would utilize portable restrooms, which would not contribute to wastewater flows to the local

wastewater system. Operational activities would not change from existing conditions. Therefore, impacts would be less than significant.

Stormwater

The proposed project would not include new or expanded stormwater facilities. In addition, the proposed project would be required to complete a SWPPP in accordance with the NPDES, which would reduce the potential for stormwater impacts on- and off-site. Therefore, impacts related to stormwater drainage would be less than significant.

Electric Power, Natural Gas, and Telecommunications

The proposed project would not result in the use of electricity during operation. The proposed project would not require new natural gas services connections and would not result in the need for new natural gas supplies or infrastructure. The proposed project would not require telecommunication and no new or expanded telecommunications facilities would be required as a result of construction and operation of the proposed project. Therefore, impacts would be less than significant.

The proposed project would have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years.

No new sources of water supply are required to meet the proposed project's water demand. During construction activities, there would be a temporary, intermittent demand for water for such activities as soil watering for site preparation, fugitive dust control, cleanup, and other short-term activities. Construction-related water usage is not expected to have an adverse impact on available water supplies, and impacts would be less than significant. Operational activities would not change from existing conditions. In addition, operation of the proposed project would not require the provision of any municipal water supplies. Therefore, operation-related water usage would not have an adverse impact on available water supplies, and impacts would be less than significant.

The proposed project would not result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments.

The local wastewater treatment system is designed to comply with federal regulations (NPDES) administered by the RWQCB. Operational activities would not change from existing conditions. Therefore, it is not anticipated that project implementation would require construction of new or the expansion of existing wastewater facilities and impacts would be less than significant. No improvements are needed to either water lines, sewer lines, or treatment facilities to serve the project. Therefore, impacts related to wastewater treatment capacity would be less than significant.

The proposed project Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals.

Construction of the proposed project would generate a small amount of solid waste. All collection, transportation, and disposal of any solid waste generated by the proposed project during construction and operation would comply with all applicable federal, State, and local statutes and regulations. Furthermore, as required by existing regulations, any hazardous materials collected on the project site during

demolition, construction, or operational activities would be transported and disposed of by a permitted and licensed hazardous materials service provider at a facility permitted to accept such hazardous materials. As such, the proposed project is not anticipated to generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals. Therefore, this impact would be less than significant.

The proposed project would comply with federal, state, and local management and reduction statutes and regulations related to solid waste.

The project site is subject to State mandates with respect to solid waste. The proposed project would comply with all federal, State, and local statutes and regulations related to solid waste, including the California Integrated Waste Management Act requirements for solid waste generated during project construction and operation. Compliance with these regulations would ensure that a less than significant impact would occur.

3.0.3 Cumulative Impacts

The CEQA Guidelines require that an EIR discuss cumulative impacts of a project, taken together with other past, present, and probable future projects producing related impacts. The goal of this analysis is twofold: first, to determine whether the impacts of all such projects would be cumulatively significant; and second, to determine whether the proposed project would itself cause a “cumulatively considerable” (and thus significant) incremental contribution to any such cumulatively significant impacts. The definition of cumulatively considerable is provided in Section 15065(a)(3) of the CEQA Guidelines: “‘Cumulatively considerable’ means that the incremental effects of an individual project are significant when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.”

CEQA Requirements

CEQA Guidelines Section 15130(b) provides the following parameters relative to cumulative impact analysis: the discussion of cumulative impacts shall reflect the severity of the impacts and their likelihood of occurrence, but the discussion need not provide as great detail as is provided for the effects attributable to the project alone. The discussion should be guided by standards of practicality and reasonableness, and should focus on the cumulative impact to which the identified related projects contribute, rather than the attributes of other projects that do not contribute to the cumulative impact.

CEQA Guidelines Section 15130 allows for the use of two alternative methods to determine the scope of projects to analyze cumulative impacts.

List Method: A list of past, present, and probable future projects producing related or cumulative impacts, including, if necessary, those projects outside the control of the agency.

Projection Method: A summary of projects contained in an adopted general plan or related planning document, or in a prior environmental document, that have been adopted or certified, which describe or evaluate regional or area-wide conditions contributing to the cumulative impact.

Related Projects

The geographic area that could be affected by implementation of proposed project in combination with other projects varies depending on the type of environmental resource being considered. For instance, cumulative aesthetics or noise impacts are more localized; whereas, cumulative air quality and greenhouse gas emissions impacts occur on a broader regional or global scale. **Table 3-1** describes the geographic scope of cumulative impact analysis for each environmental resource category. Also described is the method of evaluation for each category. Environmental resource areas that were determined to have no impact or less than significant impact in the Initial Study assessment, as discussed in Section, *Effects Found Not to Be Significant*, and would result in no cumulatively considerable impacts are not included in the table below.

TABLE 3-1
GEOGRAPHIC SCOPE AND METHOD OF EVALUATION FOR CUMULATIVE IMPACTS

Section No.	Environmental Resource	Geographic Area	Method of Evaluation
3.1	Air Quality	Immediate vicinity and South Coast Air Basin	List and Projections
3.2	Biological Resources	Immediate vicinity	List
3.3	Cultural Resources	Immediate vicinity	List
3.4	Geology and Soils	Immediate vicinity	List
3.5	Greenhouse Gas Emissions	South Coast Air Basin	List and Projections
3.5	Hazards and Hazardous Materials	Immediate vicinity	List
3.7	Hydrology and Water Quality	Regional	List and Projections
3.8	Noise	Immediate vicinity	List
3.9	Transportation	Regional	List and Projections
3.10	Tribal Cultural Resources	Immediate vicinity	List
3.11	Wildfire	Immediate vicinity	List

Table 3-2 includes all of the approved, under construction, or proposed development projects within one mile of the proposed project. The list of development projects is derived from lists provided by the City of Santa Clarita Planning Division, the Santa Clarita Valley Water Agency, and the SCVSD. For those environmental resources that were evaluated based on the projections approach, the projections take into consideration future projects that are not included in the below list of related projects.

**TABLE 3-2
RELATED PROJECTS**

No.	Location	Project Description - Land Use	Project Type	Project Status
1	28700 Newhall Ranch Rd	The project is located in the City of Santa Clarita and would consist of a five-story hotel building with 185 hotel rooms totaling 124,000 square feet for Homewood Suites and Hampton Inn. The project is being constructed in two phases and is located approximately 2,800 feet from the project site.	Commercial	Under construction
2	27501 and 27505 Wayne Mills Pl	The project is located in the City of Santa Clarita and would consist of two hotel buildings with 182 hotel rooms for Residence Inn/Springhill Suites and 108 hotel rooms for Holiday Inn Express. The project is located approximately 2,800 feet from the project site.	Commercial	Under construction
3	Magic Mountain Pkwy	The project is located in the Santa Clarita Valley and consists of Phases 4-6B of the new Magic Mountain Pipeline along Magic Mountain Parkway that have been installed to supply water to the western side of the Santa Clarita Valley Water Agency's distribution system.	Public Works/ Infrastructure	Under construction
4	The Old Rd	The project is located in unincorporated Los Angeles County and consists of reconstructing and widening The Old Road, replacing two bridges, and reconstructing and widening of Rye Canyon Road and Sky View Lane. The project is located approximately 600 feet northeast from the project site.	Public Works/ Infrastructure	Proposed
5	VWRP	The project is located within the VWRP and consists of replacing existing pressure filters	Facility Improvements	Proposed
6	VWRP	The project is located within the VWRP and consists of upgrading the existing security fence and entrances along the East, South, and Southwest of the VWRP.	Facility Improvements	Proposed
7	VWRP	The project is located within the VWRP and consists of increasing capacity of existing main stormwater pump and/or wetwell, constructing additional pump station, re-routing of existing yard piping, and installing associated valves, flowmeter, and control elements.	Facility Improvements	Proposed

SOURCE: City of Santa Clarita Planning Division, 2024; Los Angeles County Public Works, 2024; Santa Clarita Valley Water Agency, 2024

3.0.4 References

City of Santa Clarita Planning Division. 2024. Major Development Projects.

<https://santaclarita.gov/planning/major-development-projects/>. Accessed February 26, 2024.

Los Angeles County Public Works. 2024. <https://pw.lacounty.gov/projects/the-old-road-over-santa-clara-river>. Accessed April 30, 2024.

Santa Clarita Valley Water Agency. 2024. Current Projects.

<https://www.yourscvwater.com/engineering/current-projects>. Accessed February 26, 2024.

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3.1 Air Quality

This section evaluates the potential for air quality impacts resulting from the implementation of the proposed project. The existing air quality setting is described along with the relevant regulatory background. Project impacts and mitigation measures, as necessary, are presented. A more detailed description of the Environmental Setting can be found in the Valencia Water Reclamation Plant Middle Section Retaining Wall Ground Improvement Project – Air Quality Analysis Memorandum, included as Appendix B of this Draft EIR

3.1.1 Environmental Setting

Regional Climate and Meteorology

The proposed project would be located in the western portion of the South Coast Air Basin (Air Basin). The Air Basin includes all of Orange County, Los Angeles County (excluding the Antelope Valley portion), the western, non-desert portion of San Bernardino County, the western Coachella Valley and San Gorgonio Pass portions of Riverside County. The South Coast Air Quality Management District (SCAQMD) is the local air district with jurisdiction over air pollution sources in the County of Los Angeles where the project is located. While air quality in the Air Basin has improved, the Air Basin requires continued diligence to meet the air quality standards.

Criteria Air Pollutants

Certain air pollutants have been recognized to cause notable health problems and consequential damage to the environment either directly or in reaction with other pollutants, due to their presence in elevated concentrations in the atmosphere. Such pollutants have been identified and regulated as part of the overall endeavor to prevent further deterioration and facilitate improvement in air quality. The following pollutants are regulated by the United States Environmental Protection Agency (USEPA) and are subject to emissions control requirements adopted by federal, state, and local regulatory agencies. These pollutants are referred to as “criteria air pollutants” as a result of the specific standards, or criteria, which have been adopted for them. A description of the health effects of these criteria air pollutants are provided below.

Ozone (O₃)

Ozone is a secondary pollutant formed by the chemical reaction of volatile organic compounds (VOCs) and nitrogen oxides (NO_x) in the presence of sunlight under favorable meteorological conditions, such as high temperature and stagnation episodes. Ozone concentrations are generally highest during the summer months when direct sunlight, light wind, and warm temperature conditions are favorable. According to the USEPA, ozone can cause the muscles in the airways to constrict potentially leading to wheezing and shortness of breath (USEPA 2023a). Ozone can make it more difficult to breathe deeply and vigorously; cause shortness of breath and pain when taking a deep breath; cause coughing and sore or scratchy throat; inflame and damage the airways; aggravate lung diseases such as asthma, emphysema and chronic bronchitis; increase the frequency of asthma attacks; make the lungs more susceptible to infection; continue to damage the lungs even when the symptoms have disappeared; and cause chronic obstructive pulmonary disease (USEPA 2023a). Long-term exposure to ozone is linked to aggravation of asthma and is likely to be one of many causes of asthma development and long-term exposures to higher concentrations of ozone may also be linked to permanent lung damage, such as abnormal lung

development in children (USEPA 2023a). According to the California Air Resources Board (CARB), inhalation of ozone causes inflammation and irritation of the tissues lining human airways, causing and worsening a variety of symptoms and exposure to ozone can reduce the volume of air that the lungs breathe in and cause shortness of breath (CARB 2024a).

Volatile Organic Compounds

VOCs are organic chemical compounds of carbon and are not “criteria” pollutants themselves; however, they contribute with NO_x to form ozone, and are regulated to prevent the formation of ozone (USEPA 2023b). According to CARB, some VOCs are highly reactive and play a critical role in the formation of ozone, other VOCs have adverse health effects, and in some cases, VOCs can be both highly reactive and have adverse health effects (CARB 2024b). VOCs are typically formed from combustion of fuels and/or released through evaporation of organic liquids, internal combustion associated with motor vehicle usage, and consumer products (e.g., architectural coatings, etc.) (CARB 2024b).

Nitrogen Dioxide (NO₂) and Nitrogen Oxides

NO_x is a term that refers to a group of compounds containing nitrogen and oxygen. The primary compounds of air quality concern include nitrogen dioxide (NO₂) and nitric oxide (NO). Ambient air quality standards have been promulgated for NO₂, which is a reddish-brown, reactive gas (CARB 2024c). The principal form of NO_x produced by combustion is NO, but NO reacts quickly in the atmosphere to form NO₂, creating the mixture of NO and NO₂ referred to as NO_x (CARB 2024c). Major sources of NO_x include emissions from cars, trucks and buses, power plants, and off-road equipment (USEPA 2023c). The terms NO_x and NO₂ are sometimes used interchangeably. Short-term exposures to NO₂ can potentially aggravate respiratory diseases, particularly asthma, by intensifying responses to allergens in allergic asthmatics, leading to respiratory symptoms (such as coughing, wheezing or difficulty breathing), hospital admissions and visits to emergency rooms while longer exposures to elevated concentrations of NO₂ may contribute to the development of asthma and potentially increase susceptibility to respiratory infections (USEPA 2023c; CARB 2023c). In addition, a number of epidemiological studies have demonstrated associations between NO₂ exposure and premature death, cardiopulmonary effects, decreased lung function growth in children, respiratory symptoms, emergency room visits for asthma, and intensified allergic responses (CARB 2024c).

Carbon Monoxide (CO)

Carbon monoxide (CO) is primarily emitted from combustion processes and motor vehicles due to the incomplete combustion of fuel, such as natural gas, gasoline, or wood, with the majority of outdoor CO emissions from mobile sources (CARB 2024d). According to the USEPA, breathing air with a high concentration of CO reduces the amount of oxygen that can be transported in the blood stream to critical organs like the heart and brain and at very high levels, which are possible indoors or in other enclosed environments. CO can cause dizziness, confusion, unconsciousness and death (USEPA 2023d). Short-term exposure to elevated CO may result in reduced oxygen to the heart accompanied by chest pain also known as angina (USEPA 2023d). According to CARB, the most common effects of CO exposure are fatigue, headaches, confusion, and dizziness due to inadequate oxygen delivery to the brain (USEPA 2023d). Unborn babies, infants, elderly people, and people with anemia or with a history of heart or respiratory disease are most likely to experience health effects with exposure to elevated levels of CO (USEPA 2023d).

Sulfur Dioxide (SO₂)

According to the USEPA, the largest source of sulfur dioxide (SO₂) emissions in the atmosphere is the burning of fossil fuels by power plants and other industrial facilities while smaller sources of SO₂ emissions include industrial processes such as extracting metal from ore; natural sources such as volcanoes; and locomotives, ships and other vehicles and heavy equipment that burn fuel with a high sulfur content (USEPA 2023e). According to the USEPA, short-term exposures to SO₂ can harm the human respiratory system and make breathing difficult (USEPA 2023e). According to CARB, health effects at levels near the State one-hour standard are those of asthma exacerbation, including bronchoconstriction accompanied by symptoms of respiratory irritation such as wheezing, shortness of breath and chest tightness, especially during exercise or physical activity and exposure at elevated levels of SO₂ (above 1 part per million (ppm)) results in increased incidence of pulmonary symptoms and disease, decreased pulmonary function, and increased risk of mortality (CARB 2024e).

Particulate Matter (PM₁₀ and PM_{2.5})

Particulate matter air pollution is a mixture of solid particles and liquid droplets found in the air (USEPA 2023f). Particles are defined by their diameter for air quality regulatory purposes: inhalable particles with diameters that are generally 10 micrometers and smaller (PM₁₀); and fine inhalable particles with diameters that are generally 2.5 micrometers and smaller (PM_{2.5}) (USEPA 2023f). Thus, PM_{2.5} comprises a portion or a subset of PM₁₀. Sources of PM₁₀ emissions include dust from construction sites, landfills and agriculture, wildfires and brush/waste burning, industrial sources, and wind-blown dust from open lands (CARB 2024f). Sources of PM_{2.5} emissions include combustion of gasoline, oil, diesel fuel, or wood (CARB 2024f). PM₁₀ and PM_{2.5} may be either directly emitted from sources (primary particles) or formed in the atmosphere through chemical reactions of gases (secondary particles) such as SO₂, NO_x, and certain organic compounds (CARB 2024f).

According to CARB, both PM₁₀ and PM_{2.5} can be inhaled, with some depositing throughout the airways. PM₁₀ is more likely to deposit on the surfaces of the larger airways of the upper region of the lung while PM_{2.5} is more likely to travel into and deposit on the surface of the deeper parts of the lung, which can induce tissue damage, and lung inflammation (CARB 2024f). Short-term (up to 24 hours' duration) exposure to PM₁₀ has been associated primarily with worsening of respiratory diseases, including asthma and chronic obstructive pulmonary disease, leading to hospitalization and emergency department visits (CARB 2024f). The effects of long-term (months or years) exposure to PM₁₀ are less clear, although studies suggest a link between long-term PM₁₀ exposure and respiratory mortality. Short-term exposure to PM_{2.5} has been associated with premature mortality, increased hospital admissions for heart or lung causes, acute and chronic bronchitis, asthma attacks, emergency room visits, respiratory symptoms, and restricted activity days; long-term exposure to PM_{2.5} has been linked to premature death, particularly in people who have chronic heart or lung diseases, and reduced lung function growth in children (CARB 2024f).

Lead (Pb)

Major sources of lead emissions include ore and metals processing, piston-engine aircraft operating on leaded aviation fuel, waste incinerators, utilities, and lead-acid battery manufacturers (USEPA 2023g). In the past, leaded gasoline was a major source of lead emissions; however, the removal of lead from gasoline has resulted in a decrease of lead in the air by 98 percent between 1980 and 2014 (USEPA

2023d). Lead can adversely affect the nervous system, kidney function, immune system, reproductive and developmental systems and the cardiovascular system, and affects the oxygen carrying capacity of blood (USEPA 2023g). The lead effects most commonly encountered in current populations are neurological effects in children, such as behavioral problems and reduced intelligence, anemia, and liver or kidney damage (CARB 2024g). Excessive lead exposure in adults can cause reproductive problems in men and women, high blood pressure, kidney disease, digestive problems, nerve disorders, memory and concentration problems, and muscle and joint pain (CARB 2024g).

Additional Criteria Pollutants (California Only)

In addition to the national standards, the State of California regulates State-identified criteria pollutants, including sulfates (SO_4^{2-}), hydrogen sulfide (H_2S), visibility-reducing particles, and vinyl chloride. With respect to the State-identified criteria pollutants, most land use development projects either do not emit them (i.e., H_2S [nuisance odor] and vinyl chloride), or otherwise account for these pollutants (i.e., SO_4^{2-} and visibility reducing particles) through other criteria pollutants. For example, SO_4^{2-} are associated with sulfur oxide (SO_x) emissions, and visibility-reducing particles are associated with particulate matter emissions. A description of the health effects of the State-identified criteria air pollutants is provided below.

Sulfates (SO_4^{2-}): SO_4^{2-} are the fully oxidized ionic form of sulfur. SO_4^{2-} occur in combination with metal and/or hydrogen ions (CARB 2024h). In California, emissions of sulfur compounds occur primarily from the combustion of petroleum-derived fuels (e.g., gasoline and diesel fuel) that contain sulfur. This sulfur is oxidized during the combustion process and subsequently converted to SO_4^{2-} in the atmosphere. Effects of sulfate exposure at levels above the standard include a decrease in ventilatory function, aggravation of asthmatic symptoms, and an increased risk of cardio-pulmonary disease (CARB 2024h). SO_4^{2-} are particularly effective in degrading visibility, and, due to the fact that they are usually acidic, can harm ecosystems and damage materials and property (CARB 2024h).

Hydrogen Sulfide (H_2S): H_2S is a colorless gas with the odor of rotten eggs. The most common sources of H_2S emissions are oil and natural gas extraction and processing, and natural emissions from geothermal fields. Industrial sources of H_2S include petrochemical plants and kraft paper mills. H_2S is also formed during bacterial decomposition of human and animal wastes and is present in emissions from sewage treatment facilities and landfills (CARB 2024i). Exposure to H_2S can induce tearing of the eyes and symptoms related to overstimulation of the sense of smell, including headache, nausea, or vomiting; additional health effects of eye irritation have only been reported with exposures greater than 50 parts per million (ppm), which is considerably higher than the odor threshold (CARB 2024i). H_2S is regulated as a nuisance based on its odor detection level; if the standard were based on adverse health effects, it would be set at a much higher level (CARB 2024i).

Visibility-Reducing Particles: Visibility-reducing particles come from a variety of natural and manmade sources and can vary greatly in shape, size and chemical composition. Visibility reduction is caused by the absorption and scattering of light by the particles in the atmosphere before it reaches the observer. As the number of visibility-reducing particles increases, more light is absorbed and scattered, resulting in less clarity, color, and visual range (CARB 2024j). Exposure to some haze-causing pollutants have been linked to adverse health impacts similar to PM₁₀ and PM_{2.5} as discussed above (CARB 2024j).

Vinyl Chloride: Vinyl chloride is a colorless gas with a mild, sweet odor. Most vinyl chloride is used to make polyvinyl chloride (PVC) plastic and vinyl products and is generally emitted from industrial processes. Other major sources of vinyl chloride have been detected near landfills, sewage plants, and hazardous waste sites, due to microbial breakdown of chlorinated solvents (CARB 2024k). Short-term health effects of exposure to high levels of vinyl chloride in the air include central nervous system effects, such as dizziness, drowsiness, and headaches while long-term exposure to vinyl chloride through inhalation and oral exposure causes liver damage and has been shown to increase the risk of angiosarcoma, a rare form of liver cancer in humans (CARB 2024k).

Toxic Air Contaminants

In addition to criteria pollutants, the SCAQMD periodically assesses levels of toxic air contaminants (TACs) in the Air Basin. A TAC is defined by California Health and Safety Code Section 39655:

“Toxic air contaminant” means an air pollutant which may cause or contribute to an increase in mortality or in serious illness, or which may pose a present or potential hazard to human health. A substance that is listed as a hazardous air pollutant pursuant to subsection (b) of Section 112 of the federal act (42 U.S.C. Sec. 7412(b)) is a toxic air contaminant.

Diesel particulate matter, which is emitted in the exhaust from diesel engines, was listed by the State as a toxic air contaminant in 1998. Most major sources of diesel emissions, such as ships, trains, and trucks operate in and around ports, railyards, and heavily traveled roadways. These areas are often located near highly populated areas resulting in greater health consequences for urban areas than rural areas (CARB 2024l). Diesel particulate matter has historically been used as a surrogate measure of exposure for all diesel exhaust emissions. Diesel particulate matter consists of fine particles (fine particles have a diameter $<2.5 \mu\text{m}$), including a subgroup of ultrafine particles (ultrafine particles have a diameter $<0.1 \mu\text{m}$). Collectively, these particles have a large surface area which makes them an excellent medium for absorbing organics. The visible emissions in diesel exhaust include carbon particles or “soot.” Diesel exhaust also contains a variety of harmful gases and cancer-causing substances.

Exposure to diesel particulate matter may be a health hazard, particularly to children whose lungs are still developing and the elderly who may have other serious health problems. Diesel particulate matter levels and resultant potential health effects may be higher in proximity to heavily traveled roadways with substantial truck traffic or near industrial facilities. According to CARB, diesel particulate matter exposure may lead to the following adverse health effects: aggravated asthma; chronic bronchitis; increased respiratory and cardiovascular hospitalizations; decreased lung function in children; lung cancer; and premature deaths for people with heart or lung disease (CARB 2024l).

Odorous Emissions

Though offensive odors from stationary sources rarely cause any physical harm, they still remain unpleasant and can lead to public distress generating citizen complaints to local governments. The occurrence and severity of odor impacts depend on the nature, frequency and intensity of the source; wind speed and direction; and the sensitivity of receptors. Generally, increasing the distance between the receptor and the source will mitigate odor impacts.

Existing Conditions

The Southern California region lies in the semi-permanent high-pressure zone of the eastern Pacific that leads to mild climate, moderated by cool sea breezes. The usually mild climatological pattern is interrupted infrequently by periods of extremely hot weather, winter storms, or Santa Ana winds. The area's natural physical characteristics (weather and topography), as well as man-made influences (development patterns and lifestyle) play a major role in degree and severity of the air pollution problem in the Air Basin where factors, such as wind, sunlight, temperature, humidity, rainfall, and topography, affect the accumulation and dispersion of air pollutants throughout the Air Basin, making it an area of high pollution potential.

The greatest air pollution throughout the Air Basin occurs from June through September that is generally attributed to light winds, shallow vertical atmospheric mixing, as well as the large amount of pollutant emissions. This frequently reduces pollutant dispersion, resulting in elevated air pollution levels. In addition, pollutant concentrations in the Air Basin vary with location, season, and time of day. For instance, O₃ concentrations tend to be lower along the coast, higher in the near inland valleys, and lower in the far inland areas of the Air Basin and adjacent desert. While substantial progress has been made in reducing air pollution levels in Southern California, the Air Basin still fails to meet the national standards for O₃ and PM_{2.5} and, therefore, is considered a federal “non-attainment” area for these pollutants.

As described above, at the regional level, SCAQMD is the regulatory agency responsible for improving air quality for large areas of Los Angeles, Orange County, Riverside and San Bernardino Counties. Specifically, the SCAQMD has the responsibility for ensuring that all national and State ambient air quality standards are achieved and maintained throughout the Air Basin. To meet the standards, SCAQMD has adopted a series of AQMPs. The 2022 AQMP builds upon measures already in place from previous AQMPs and includes a variety of additional strategies such as regulation, accelerated deployment of available cleaner technologies (e.g., zero emissions technologies and low NO_x technologies), best management practices, co-benefits from existing programs (e.g., climate and energy efficiency), incentives, and other Clean Air Act (CAA) measures to achieve the 2015 8-hour ozone standard by 2037 (SCAQMD 2022). However, the 2037 NO_x limit is 60 tons per day and emissions from federal and international sources are estimated to be 85 tons per day in 2037; thus, federal sources alone would emit more than the 60 tons per day limit in 2037 (SCAQMD 2022). The SCAQMD and CARB cannot sufficiently reduce NO_x emissions to meet the standard without federal action (SCAQMD 2022).

The 2022 AQMP states that despite the projected growth in the region, air quality has improved substantially over the years. This is largely because of local, State and federal air quality control programs as described above. As seen in Figure 1-4 on page 1-9 of the 2022 AQMP, the percent change in air quality is shown along with demographic data for the 4-county region from the 2022 AQMP where in particular, the trends since 1995 of the 8-hour O₃ levels, the 1-hour O₃ levels, and annual average PM_{2.5} concentrations (since 2001), compared to the regional gross domestic product, total employment and population (SCAQMD 2022). In addition, the O₃ and particulate matter levels continue to trend downward as the economy and population increase, demonstrating that it is possible to maintain a healthy economy while improving public health through air quality improvements (SCAQMD 2022).

Attainment Status

The extent and severity of pollutant concentrations in the Air Basin are a function of the area's natural physical characteristics (weather and topography) and man-made influences (development patterns and lifestyle). Factors such as wind, sunlight, temperature, humidity, rainfall, and topography all affect the accumulation and dispersion of pollutants throughout the Air Basin, making it an area of high pollution potential. The Air Basin's meteorological conditions, in combination with regional topography, are conducive to the formation and retention of ozone, which is a secondary pollutant that forms through photochemical reactions in the atmosphere. California Health and Safety Code Section 39607(e) requires CARB to establish and periodically review area designation criteria. **Table 3.1-1** provides a summary of the attainment status of the Los Angeles County portion of the Air Basin with respect to federal and State standards. The Air Basin is designated as attainment for the California standards for sulfates and unclassified for hydrogen sulfide and visibility-reducing particles.¹ The Air Basin is currently in non-attainment for O₃, PM₁₀, and PM_{2.5} under the CAAQS and O₃, and PM_{2.5} under the NAAQS. Since vinyl chloride is a carcinogenic toxic air contaminant, CARB does not classify attainment status for this pollutant.

TABLE 3.1-1
SOUTH COAST AIR BASIN ATTAINMENT STATUS (LOS ANGELES COUNTY PORTION)

Pollutant	National Standards (NAAQS)	California Standards (CAAQS)
O ₃ (1-hour standard)	N/A ^a	Non-attainment
O ₃ (8-hour standard)	Non-attainment – Extreme	Non-attainment
CO	Attainment (Maintenance)	Attainment
NO ₂	Attainment (Maintenance)	Attainment
SO ₂	Attainment/Unclassifiable	Attainment
PM ₁₀	Attainment (Maintenance)	Non-attainment
PM _{2.5}	Non-attainment – Serious	Non-attainment
Lead (Pb)	Non-attainment (partial) ^c	Attainment
Visibility Reducing Particles	N/A	Unclassified
Sulfates	N/A	Attainment
Hydrogen Sulfide	N/A	Unclassified
Vinyl Chloride ^b	N/A	N/A ^c

N/A = not applicable

a. The NAAQS for 1-hour ozone was revoked on June 15, 2005, for all areas except Early Action Compact areas.

b. In 1990, the California Air Resources Board identified vinyl chloride as a toxic air contaminant and determined that it does not have an identifiable threshold. Therefore, the California Air Resources Board does not monitor or make status designations for this pollutant.

c. Lead partial nonattainment designation – Los Angeles County portion of Air Basin only for near-source monitors. Expecting redesignation to attainment based on current monitoring data.

SOURCE: USEPA, 2023. The Green Book Non-Attainment Areas for Criteria Air Pollutants, last updated December 23, 2023.

<https://www.epa.gov/green-book>. Accessed February 2024.

CARB, 2022 Area Designations Maps/State and National, November. <http://www.arb.ca.gov/design/adm/adm.htm>. Accessed January 2024.

¹ Unclassified is the category designation of an area for a pollutant with insufficient data. CARB, Proposed 2017 Amendments to Area Designations for State Ambient Air Quality Standards, December 19, 2017 (release date).

Sources of Emissions

As detailed in the AQMP, the major sources of air pollution in the Air Basin are divided into four major source classifications: point, area stationary sources, and on-road and off-road mobile sources. Point and area sources are the two major subcategories of stationary sources (SCAQMD 2012). Point sources are permitted facilities that contain one or more emission sources at an identified location (e.g., power plants, refineries, emergency generator exhaust stacks). Area sources consist of many small emission sources (e.g., residential water heaters, architectural coatings, consumer products, and permitted sources such as large boilers) which are distributed across the region. Mobile sources consist of two main subcategories: On-road sources (such as cars and trucks) and off-road sources (such as heavy construction equipment).

Local Air Quality

Existing Criteria Pollutant Levels at Nearby Monitoring Stations

The SCAQMD maintains a network of air quality monitoring stations located throughout the Air Basin to measure ambient pollutant concentrations. The monitoring station most representative of the project site is the Santa Clarita Valley Monitoring Station, located at 22224 Placerita Canyon Road, Santa Clarita, CA 91321. Criteria pollutants monitored at this station include ozone, NO₂, CO, and PM₁₀. Additional monitoring stations were used to complete **Table 3.1-2**, the West San Fernando Valley Monitoring Station was referenced for PM_{2.5} data, located at 18330 Gault Street, Reseda, CA 91702. Lastly, the Central Los Angeles Monitoring Station, located at 1630 North Main Street, Los Angeles, CA 90012, was referenced for Pb and SO₂ data. The most recent data available from the SCAQMD for this monitoring station are from years 2020 to 2022 (SCAQMD 2018, 2019, 2020). As shown in Table 3.1-2, the CAAQS and NAAQS were not exceeded in the project site vicinity for most pollutants between 2020 and 2022, except for O₃ and PM_{2.5}.

Sensitive Receptors

Land uses, such as schools, hospitals, and convalescent homes are considered to be sensitive to poor air quality conditions because infants, children, the elderly, and people with health afflictions (especially respiratory ailments), are more susceptible to respiratory infections and other air-quality-related health problems than the general public. Residential areas are also considered to be sensitive to air pollution because residents (including children and the elderly) tend to be at home for extended periods of time, resulting in sustained exposure to any pollutants present. Recreational land uses are considered moderately sensitive to air pollution. Exercise places a high demand on respiratory functions, which can be impaired by air pollution, even though exposure periods during exercise are generally short.

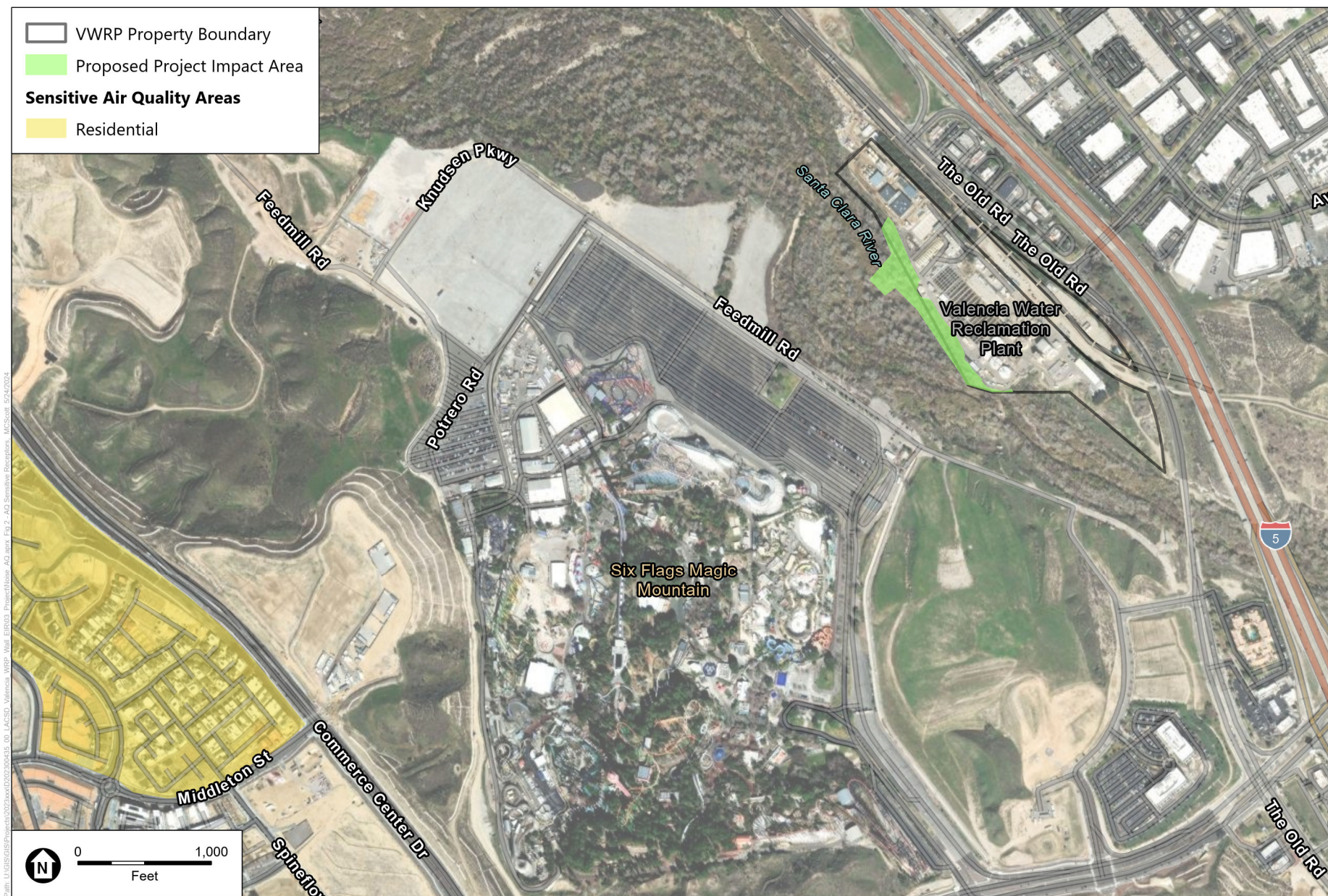
There are no sensitive receptors (i.e., residence, hospital, convalescent facility, etc.) within one-quarter mile of the project site location. The nearest sensitive receptors to the project site are located west and south/southeast of the project site as shown in **Figure 3.1-1**.

TABLE 3.1-2
AMBIENT AIR QUALITY IN THE PROJECT VICINITY

Pollutant/Standard	2020	2021	2022
Ozone, O₃ (1-hour)			
Maximum Concentration (ppm)	0.148	0.125	0.129
Days > CAAQS (0.09 ppm)	44	30	28
Ozone, O₃ (8-hour)			
Maximum Concentration (ppm)	0.122	0.103	0.114
4 th High 8-hour Concentration (ppm)	0.106	0.097	0.095
Days > CAAQS (0.070 ppm)	73	61	66
Days > NAAQS (0.070 ppm)	73	63	68
Nitrogen Dioxide, NO₂ (1-hour)			
Maximum Concentration (ppm)	0.046	0.057	0.052
Days > CAAQS (0.18 ppm)	0	0	0
98 th Percentile Concentration (ppm)	0.0535	0.035	0.033
Days > NAAQS (0.100 ppm)	0	0	0
Nitrogen Dioxide, NO₂ (Annual)			
Annual Arithmetic Mean (0.030 ppm)	0.009	0.010	0.009
Carbon Monoxide, CO (1-hour)			
Maximum Concentration (ppm)	1.2	1.0	1.5
Days > CAAQS (20 ppm)	0	0	0
Days > NAAQS (35 ppm)	0	0	0
Carbon Monoxide, CO (8-hour)			
Maximum Concentration (ppm)	0.8	0.7	0.6
Days > CAAQS (9.0 ppm)	0	0	0
Days > NAAQS (9 ppm)	0	0	0
Respirable Particulate Matter, PM₁₀ (24-hour)			
Maximum Concentration (µg/m ³)	24	47	36
Samples > CAAQS (50 µg/m ³)	0	0	0
Samples > NAAQS (150 µg/m ³)	0	0	0
Respirable Particulate Matter, PM₁₀ (Annual)			
Annual Arithmetic Mean (20 µg/m ³)	22.5	19.9	18.5
Fine Particulate Matter, PM_{2.5} (24-hour)			
Maximum Concentration (µg/m ³)	27.6	55.5	20.5
98 th Percentile Concentration (µg/m ³)	26.4	36.1	36.1
Samples > NAAQS (35 µg/m ³)	0	3	0
Fine Particulate Matter, PM_{2.5} (Annual)			
Annual Arithmetic Mean (12 µg/m ³)	10.1	10.1	8.8
SO₂ (1-hour)			
Maximum Concentration (ppm)	0.004	0.002	0.007
99 th Percentile Concentration (ppm)	0.003	0.002	0.002
Lead			
Maximum 30-day average (µg/m ³)	0.013	0.012	0.008
Samples > CAAQS (1.5 µg/m ³)	0	0	0
Maximum 3-month rolling average (µg/m ³)	0.011	0.012	0.007
Days > NAAQS (0.15 µg/m ³)	0	0	0

NOTES: ppm = parts per million; µg/m³ = micrograms per cubic meter

SOURCE: SCAQMD, 2020, 2021, 2022. Historical Data by Year, <http://www.aqmd.gov/home/air-quality/air-quality-data-studies/historical-data-by-year>; CARB, Air Quality Data Statistics, <http://www.arb.ca.gov/adam/>; USEPA, AirData, http://www.epa.gov/airdata/ad_rep_mon.html. Accessed February 2024.



SOURCE: ESA, 2023

VWRP Middle Section Retaining Wall Ground Improvement Project

Figure 3.1-1
Air Quality Sensitive Receptors

3.1.2 Regulatory Framework

A more detailed description of the Regulatory Framework can be found in the *Valencia Water Reclamation Plant Middle Section Retaining Wall Ground Improvement Project – Air Quality Analysis Memorandum*, included as Appendix B of this Draft EIR.

Federal

The federal Clean Air Act (CAA) was enacted in 1955 and has been amended numerous times in subsequent years, with the most recent amendments occurring in 1990 (USC 1970). The CAA is the comprehensive federal law that regulates air emissions in order to protect public health and welfare (USEPA 2023h). The USEPA is responsible for the implementation and enforcement of the CAA, which establishes federal NAAQS, specifies future dates for achieving compliance, and requires USEPA to designate areas as attainment, nonattainment, or maintenance. The CAA also mandates that each state submit and implement a State Implementation Plan (SIP) for each criteria pollutant for which the state has not achieved the applicable NAAQS. The SIP includes pollution control measures that demonstrate how the standards for those pollutants will be met. The sections of the CAA most applicable to the project include Title I (Nonattainment Provisions) and Title II (Mobile Source Provisions) (USEPA 2023i).²

Title I requirements are implemented for the purpose of attaining NAAQS for criteria air pollutants. The NAAQS were amended in July 1997 to include an 8-hour standard for ozone and to adopt a NAAQS for PM_{2.5}. The NAAQS were also amended in September 2006 to include an established methodology for calculating PM_{2.5}, as well as to revoke the annual PM₁₀ threshold. **Table 3.1-3** shows the NAAQS currently in effect for each criteria pollutant. Title I also includes air toxics provisions which require USEPA to develop and enforce regulations to protect the public from exposure to airborne contaminants that are known to be hazardous to human health. In accordance with Section 112, USEPA establishes National Emission Standards for Hazardous Air Pollutants. The list of hazardous air pollutants (HAPs), or air toxics, includes specific compounds that are known or suspected to cause cancer or other serious health effects.

Title II requirements pertain to mobile sources, such as cars, trucks, buses, and planes. Reformulated gasoline, automobile pollution control devices, and vapor recovery nozzles on gas pumps are a few of the mechanisms the USEPA uses to regulate mobile air emission sources. The provisions of Title II have resulted in tailpipe emission standards for vehicles, which have been strengthened in recent years to improve air quality. For example, the standards for NO_x emissions have been lowered substantially, and the specification requirements for cleaner burning gasoline are more stringent.

The NAAQS, and the CAAQS for the California criteria air pollutants (discussed above), have been set at levels considered safe to protect public health, including the health of sensitive populations and to protect public welfare.

² Mobile sources include on-road vehicles (e.g., cars, buses, motorcycles) and non-road vehicles (e.g., aircraft, trains, construction equipment). Stationary sources are comprised of both point and area sources. Point sources are typically stationary facilities that emit large amount of pollutants (e.g., municipal waste incinerators, power plants). Area sources are typically smaller stationary sources that alone are not large emitters but combined could account for larger amounts of pollutants (e.g., consumer products, residential heating, dry cleaners).

**TABLE 3.1-3
AMBIENT AIR QUALITY STANDARDS**

Pollutant	Average Time	California Standards ^a		National Standards ^b		
		Concentration ^c	Method ^d	Primary ^{c,e}	Secondary ^{c,f}	Method ^g
O ₃ ^h	1 Hour	0.09 ppm (180 µg/m ³)	Ultraviolet Photometry	—	Same as Primary Standard	Ultraviolet Photometry
	8 Hour	0.070 ppm (137 µg/m ³)		0.070 ppm (137 µg/m ³)		
NO ₂ ⁱ	1 Hour	0.18 ppm (339 µg/m ³)	Gas Phase Chemi-luminescence	100 ppb (188 µg/m ³)	None	Gas Phase Chemi-luminescence
	Annual Arithmetic Mean	0.030 ppm (57 µg/m ³)		53 ppb (100 µg/m ³)	Same as Primary Standard	
CO	1 Hour	20 ppm (23 mg/m ³)	Non-Dispersive Infrared Photometry (NDIR)	35 ppm (40 mg/m ³)	None	Non-Dispersive Infrared Photometry (NDIR)
	8 Hour	9.0 ppm (10mg/m ³)		9 ppm (10 mg/m ³)		
	8 Hour (Lake Tahoe)	6 ppm (7 mg/m ³)		—	—	
SO ₂ ^j	1 Hour	0.25 ppm (655 µg/m ³)	Ultraviolet Fluorescence	75 ppb (196 µg/m ³)	—	Ultraviolet Fluorescence; Spectrophotometry (Pararosaniline Method)
	3 Hour	—		—	0.5 ppm (1300 µg/m ³)	
	24 Hour	0.04 ppm (105 µg/m ³)		0.14 ppm (for certain areas) ^j	—	
	Annual Arithmetic Mean	—	0.030 ppm (for certain areas) ^j	—		
PM10 ^k	24 Hour	50 µg/m ³	Gravimetric or Beta Attenuation	150 µg/m ³	Same as Primary Standard	Inertial Separation and Gravimetric Analysis
	Annual Arithmetic Mean	20 µg/m ³		—		
PM2.5 ^k	24 Hour	No Separate State Standard		35 µg/m ³	Same as Primary Standard	Inertial Separation and Gravimetric Analysis
	Annual Arithmetic Mean	12 µg/m ³	Gravimetric or Beta Attenuation	12.0 µg/m ³ ^k	15 µg/m ³	
Lead ^{l,m}	30 Day Average	1.5 µg/m ³	Atomic Absorption	—	—	High Volume Sampler and Atomic Absorption
	Calendar Quarter	—		1.5 µg/m ³ (for certain areas) ^m	Same as Primary Standard	
	Rolling 3-Month Average ^m	--		0.15 µg/m ³		

Pollutant	Average Time	California Standards ^a		National Standards ^b		
		Concentration ^c	Method ^d	Primary ^{c,e}	Secondary ^{c,f}	Method ^g
Visibility Reducing Particles ⁿ	8 Hour	Extinction coefficient of 0.23 per kilometer — visibility of 10 miles or more (0.07 — 30 miles or more for Lake Tahoe) due to particles when relative humidity is less than 70 percent. Method: Beta Attenuation and Transmittance through Filter Tape.		No Federal Standards		
Sulfates (SO ₄)	24 Hour	25 µg/m ³	Ion Chromatography			
Hydrogen Sulfide	1 Hour	0.03 ppm (42 µg/m ³)	Ultraviolet Fluorescence			
Vinyl Chloride ^l	24 Hour	0.01 ppm (26 µg/m ³)	Gas Chromatography			

- a. California standards for ozone, carbon monoxide (except 8-hour Lake Tahoe), sulfur dioxide (1 and 24 hour), nitrogen dioxide, and particulate matter (PM10, PM2.5, and visibility reducing particles), are values that are not to be exceeded. All others are not to be equaled or exceeded. California ambient air quality standards are listed in the Table of Standards in Section 70200 of Title 17 of the California Code of Regulations.
- b. National standards (other than ozone, particulate matter, and those based on annual arithmetic mean) are not to be exceeded more than once a year. The ozone standard is attained when the fourth highest 8-hour concentration measured at each site in a year, averaged over three years, is equal to or less than the standard. For PM10, the 24-hour standard is attained when the expected number of days per calendar year with a 24-hour average concentration above 150 micrograms/per cubic meter (µg/m³) is equal to or less than one. For PM2.5, the 24 hour standard is attained when 98 percent of the daily concentrations, averaged over three years, are equal to or less than the standard.
- c. Concentration expressed first in units in which it was promulgated. Equivalent units given in parentheses are based upon a reference temperature of 25°C and a reference pressure of 760 torr. Most measurements of air quality are to be corrected to a reference temperature of 25°C and a reference pressure of 760 torr; ppm in this table refers to ppm by volume, or micromoles of pollutant per mole of gas.
- d. Any equivalent procedure which can be shown to the satisfaction of the California Air Resources Board to give equivalent results at or near the level of the air quality standard may be used.
- e. National Primary Standards: The levels of air quality necessary, with an adequate margin of safety to protect the public health.
- f. National Secondary Standards: The levels of air quality necessary to protect the public welfare from any known or anticipated adverse effects of a pollutant.
- g. Reference method as described by the USEPA. An "equivalent method" of measurement may be used but must have a "consistent relationship to the reference method" and must be approved by the USEPA.
- h. On October 1, 2015, the national 8-hour ozone primary and secondary standards were lowered from 0.075 to 0.070 ppm.
- i. To attain the 1-hour national standard, the 3-year average of the annual 98th percentile of the 1-hour daily maximum concentrations at each site must not exceed 100 ppb. Note that the national 1-hour standard is in units of parts per billion (ppb). California standards are in units of parts per million (ppm). To directly compare the national 1-hour standard to the California standards the units can be converted from ppb to ppm. In this case, the national standard of 100 ppb is identical to 0.100 ppm.
- j. On June 2, 2010, a new 1-hour SO₂ standard was established and the existing 24-hour and annual primary standards were revoked. To attain the 1-hour national standard, the 3-year average of the annual 99th percentile of the 1-hour daily maximum concentrations at each site must not exceed 75 ppb. The 1971 SO₂ national standards (24-hour and annual) remain in effect until one year after an area is designated for the 2010 standard, except that in areas designated non-attainment for the 1971 standards, the 1971 standards remain in effect until implementation plans to attain or maintain the 2010 standards are approved.
- k. On December 14, 2012, the national annual PM2.5 primary standard was lowered from 15 µg/m³ to 12.0 µg/m³.
- l. The California Air Resources Board has identified lead and vinyl chloride as 'toxic air contaminants' with no threshold level of exposure for adverse health effects determined. These actions allow for the implementation of control measures at levels below the ambient concentrations specified for these pollutants.
- m. The national standard for lead was revised on October 15, 2008, to a rolling three-month average. The 1978 lead standard (1.5 µg/m³ as a quarterly average) remains in effect until one year after an area is designated for the 2008 standard, except that in areas designated non-attainment for the 1978 standard, the 1978 standard remains in effect until implementation plans to attain or maintain the 2008 standard are approved.
- n. In 1989, the California Air Resources Board converted both the general statewide 10-mile visibility standard and the Lake Tahoe 30-mile visibility standard to instrumental equivalents, which are "extinction of 0.23 per kilometer" and "extinction of 0.07 per kilometer" for the statewide and Lake Tahoe Air Basin standards, respectively.

SOURCE: California Air Resources Board, 2016. Ambient Air Quality Standards (5/4/16). <https://ww2.arb.ca.gov/resources/documents/ambient-air-quality-standards-0>. Accessed February 2024.

State

California Clean Air Act

The California Clean Air Act (CCAA), signed into law in 1988, requires all areas of the state to achieve and maintain the CAAQS by the earliest practical date. CARB, a part of the California Environmental Protection Agency (CalEPA), is responsible for the coordination and administration of both State and federal air pollution control programs within California. In this capacity, CARB conducts research, sets the CAAQS, compiles emission inventories, develops suggested control measures, and provides oversight of local programs. CARB establishes emissions standards for motor vehicles sold in California, consumer products, and various types of commercial equipment. It also sets fuel specifications to further reduce vehicular emissions. Table 3.1-3 includes the CAAQS currently in effect for each of the criteria pollutants, as well as other pollutants recognized by the state. As shown in Table 3.1-3, the CAAQS have more stringent standards than the NAAQS. The Air Basin fails to meet State standards for O₃, PM₁₀, and PM_{2.5} and, therefore, is considered “non-attainment” for these pollutants.

California Code of Regulations

The California Code of Regulations (CCR) is the official compilation and publication of regulations adopted, amended or repealed by the state agencies pursuant to the Administrative Procedure Act. The CCR includes regulations that pertain to air quality emissions. Specifically, Section 2485 in Title 13 of the CCR states that the idling of all diesel-fueled commercial vehicles (weighing over 10,000 pounds) during construction shall be limited to five minutes at any location. In addition, Section 93115 in Title 17 of the CCR states that operations of any stationary, diesel-fueled, compression-ignition engines shall meet specified fuel and fuel additive requirements and emissions standards.

California Air Resources Board On-Road and Off-Road Vehicle Rules

CARB has adopted numerous regulations to reduce emissions from on-road and off-road vehicles. These include the Airborne Toxic Control Measure (ATCM), which limits heavy-duty diesel motor vehicle idling in order to reduce public exposure to diesel PM and other TACs (Title 13 California Code of Regulations [CCR], Section 2485); the Truck and Bus regulation which reduces NO_x, PM₁₀, and PM_{2.5} emissions from existing diesel vehicles operating in California (13 CCR, Section 2025); and the Advanced Clean Trucks (ACT) regulation which mandates zero-emission vehicle (ZEV) sales requirements for truck manufacturers and a one-time reporting requirement for large entities and fleets (CARB 2024m). The ACT regulation is designed to accelerate widespread adoption of ZEVs in the medium- and heavy-duty truck sector to reduce on-road mobile source emissions on the path to carbon neutrality by 2045 (EO B-55-18). Starting in 2024, zero-emission powertrain certification will be required. Most recently, in September 2020, Governor Gavin Newsom announced Executive Order N-79-20 stating that 100 percent of new passenger cars and 100 percent of operations for drayage trucks and off-road vehicles and equipment shall be ZE by 2035. By 2045, 100 percent of operations of medium- and heavy-duty vehicles shall be ZE (JD Supra 2020).

In addition to limiting exhaust from idling trucks, CARB promulgated emission standards for off-road diesel construction equipment of greater than 25 horsepower such as bulldozers, loaders, backhoes and forklifts, as well as many other self-propelled off-road diesel vehicles, which aims to reduce emissions by the installation of diesel soot filters and encouraging the retirement, replacement, or repower of older, dirtier engines with newer emission-controlled models (13 CCR, Section 2449).

Toxic Air Contaminants

The California Air Toxics Program was established in 1983, when the California Legislature adopted Assembly Bill (AB) 1807 to establish a two-step process of risk identification and risk management to address potential health effects from exposure to toxic substances in the air. In the risk identification step, CARB and Office of Environmental Health Hazard Assessment (OEHHA) determine if a substance should be formally identified, or “listed,” as a TAC in California. Since the inception of the program, a number of such substances have been listed (<https://ww2.arb.ca.gov/resources/documents/carb-identified-toxic-air-contaminants>). In 1993, the California Legislature amended the program to identify the 189 federal HAPs as TACs. The SCAQMD has not adopted guidance applicable to land use projects that requires a quantitative health risk assessment be performed for construction exposures to TAC emissions (SCAQMD 2016). The SCAQMD states that: “SCAQMD currently does not have guidance on construction Health Risk Assessments.” (SCAQMD 2016).

The AB 1807 program is supplemented by the AB 2588 Air Toxics “Hot Spots” program, which was established by the California Legislature in 1987. Under this program, facilities are required to report their air toxics emissions, assess health risks, and notify nearby residents and workers of significant risks if present. In 1992, the AB 2588 program was amended by Senate Bill (SB) 1731 to require facilities that pose a significant health risk to the community to reduce their risk through implementation of a risk management plan.

Regional

To meet the NAAQS and CAAQS, the SCAQMD has adopted a series of Air Quality Management Plans (AQMPs), which serve as a regional blueprint to develop and implement an emission reduction strategy that will bring the Air Basin into attainment with the standards in a timely manner. The most current AQMP is the *2022 Air Quality Management Plan (2022 AQMP)*, which was adopted on December 2, 2022 (SCAQMD 2022). The goal of the 2022 AQMP is to provide a regional roadmap to help the Air Basin achieve the USEPA's NAAQS 2015 8-hour ozone standard (70 parts per billion).

On January 26, 2023, CARB adopted Resolution 23-4, which directs the CARB Executive Officer to submit the 2022 AQMP to the USEPA for inclusion in the California SIP to be effective, for purposes of federal law, after notice and public hearing as required by Section 110(l) of the Clean Air Act and 40 Code of Federal Regulations Section 51.102 and approval by the USEPA. USEPA approval has not yet occurred.

The 2022 AQMP builds upon measures already in place from previous AQMPs. It also includes a variety of additional strategies such as regulation, accelerated deployment of available cleaner technologies (e.g., zero emissions technologies, when cost-effective and feasible, and low NO_x technologies in other applications), best management practices, co-benefits from existing programs (e.g., climate and energy efficiency), incentives, and other CAA measures to achieve the 2015 8-hour ozone standard.

The 2022 AQMP incorporates the transportation strategy and transportation control measures from Southern California Association of Governments (SCAG) Connect SoCal 2020 (2020–2045 *Regional Transportation Plan/Sustainable Communities Strategy* [2020–2045 RTP/SCS]) (SCAG 2020). SCAG is the regional planning agency for Los Angeles, Orange, Ventura, Riverside, San Bernardino, and Imperial Counties, and addresses regional issues relating to transportation, the economy, community development

and the environment. SCAG coordinates with various air quality and transportation stakeholders in Southern California to ensure compliance with the federal and state air quality requirements. Pursuant to California Health and Safety Code Section 40460, SCAG has the responsibility of preparing and approving the portions of the AQMP relating to the regional demographic projections and integrated regional land use, housing, employment, and transportation programs, measures, and strategies. SCAG is required by law to ensure that transportation activities “conform” to, and are supportive of, the goals of regional and state air quality plans to attain the NAAQS. The RTP/SCS includes transportation programs, measures, and strategies generally designed to reduce vehicle miles traveled (VMT), which are contained in the AQMP. The 2022 AQMP forecasts future emissions inventories with growth based on SCAG’s 2020–2045 RTP/SCS.

SCAQMD Air Quality Guidance Documents

The SCAQMD published the *CEQA Air Quality Handbook* to provide local governments with guidance for analyzing and mitigating project-specific air quality impacts (SCAQMD 1993). The *CEQA Air Quality Handbook* provides standards, methodologies, and procedures for conducting air quality analyses in EIRs and was used extensively in the preparation of this analysis. However, the SCAQMD is currently in the process of replacing the *CEQA Air Quality Handbook* with the *Air Quality Analysis Guidance Handbook*. While this process is underway, the SCAQMD recommends that lead agencies avoid using the screening tables in Chapter 6 (Determining the Air Quality Significance of a project) and the on-road mobile source emission factors in Table A9-5-J1 through A9-5 of the *CEQA Air Quality Handbook* as they are outdated.

The SCAQMD instead recommends using other approved models to calculate emissions from land use projects, such as the California Emissions Estimator Model (CalEEMod) software, which is a model developed for the California Air Pollution Control Officers Association (CAPCOA) in collaboration with the California Air Districts, which is a Statewide land use emissions computer model designed to provide a uniform platform for government agencies, land use planners, and environmental professionals to quantify potential criteria pollutant and greenhouse gas (GHG) emissions from a variety of land use projects.

The SCAQMD has also adopted land use planning guidelines in its *Guidance Document for Addressing Air Quality Issues in General Plans and Local Planning*, which considers impacts to sensitive receptors from facilities that emit TAC emissions (SCAQMD 2005). The SCAQMD’s document introduces land use-related policies that rely on design and distance parameters to minimize emissions and lower potential health risk. SCAQMDs guidelines are voluntary initiatives recommended for consideration by local planning agencies.

The SCAQMD has published a guidance document called the *Final Localized Significance Threshold Methodology* for CEQA Evaluations that is intended to provide guidance when evaluating the localized effects from mass emissions during construction (SCAQMD 2003 and 2008). The SCAQMD adopted additional guidance regarding PM_{2.5} emissions in a document called *Final Methodology to Calculate Particulate Matter (PM)_{2.5} and PM_{2.5} Significance Thresholds* (SCAQMD 2006). This latter document has been incorporated by the SCAQMD into its CEQA significance thresholds and *Final Localized Significance Threshold Methodology*.

SCAQMD has adopted two rules to limit cancer and non-cancer health risks from facilities located within its jurisdiction. Rule 1401 (New Source Review of Toxic Air Contaminants) regulates new or modified facilities, and Rule 1402 (Control of Toxic Air Contaminants from Existing Sources) regulates facilities that are already operating. Rule 1402 incorporates the requirements of the AB 2588 program, including implementation of risk reduction plans for significant risk facilities.

SCAQMD Rules and Regulations

The SCAQMD has adopted many rules and regulations to regulate sources of air pollution in the Air Basin and to help achieve air quality standards. The proposed project may be subject to the following SCAQMD rules and regulations:

Regulation IV – Prohibitions: This regulation sets forth the restrictions for visible emissions, odor nuisance, fugitive dust, various air emissions, fuel contaminants, start-up/shutdown exemptions and breakdown events. The following is a list of rules which apply to the proposed project:

Rule 401 – Visible Emissions: This rule states that a person shall not discharge into the atmosphere from any single source of emission whatsoever any air contaminant for a period or periods aggregating more than three minutes in any one hour which is as dark or darker in shade as that designated No. 1 on the Ringelmann Chart or of such opacity as to obscure an observer's view.

Rule 402 – Nuisance: This rule states that a person shall not discharge from any source whatsoever such quantities of air contaminants or other material which cause injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public, or which endanger the comfort, repose, health or safety of any such persons or the public, or which cause, or have a natural tendency to cause, injury or damage to business or property.

Rule 403 – Fugitive Dust: This rule requires projects to prevent, reduce or mitigate fugitive dust emissions from a site. Rule 403 restricts visible fugitive dust to the project property line, restricts the net PM10 emissions to less than 50 micrograms per cubic meter ($\mu\text{g}/\text{m}^3$) and restricts the tracking out of bulk materials onto public roads. Additionally, projects must utilize one or more of the best available control measures (identified in the tables within the rule). Control measures may include adding freeboard to haul vehicles, covering loose material on haul vehicles, watering or using non-toxic chemical stabilizers to prevent the generation of visible dust plumes, limiting vehicle speeds to 15 miles per hour on unpaved surfaces, and/or ceasing all activities. Finally, a contingency plan may be required if so determined by USEPA.

Regulation XI – Source Specific Standards: Regulation XI sets emissions standards for specific sources. The following is a list of rules which may apply to the project:

Rule 1113 – Architectural Coatings: This rule requires manufacturers, distributors, and end users of architectural and industrial maintenance coatings to reduce VOC emissions from the use of these coatings, primarily by placing limits on the VOC content of various coating categories.

Rule 1186 – PM10 Emissions from Paved and Unpaved Roads, and Livestock Operations: This rule applies to owners and operators of paved and unpaved roads and livestock operations. The rule is intended to reduce PM10 emissions by requiring the cleanup of material deposited onto paved roads, use of certified street sweeping equipment, and treatment of high-use unpaved roads (see also Rule 403).

Local

Los Angeles County 2035 General Plan

Local jurisdictions, such as the County, have the authority and responsibility to reduce air pollution through their policy power and decision-making authority. Specifically, the County is responsible for the assessment and mitigation of air emissions resulting from its land use decisions. The County is also responsible for the implementation of transportation control measures as outlined in the AQMP.

Examples of such measures include bus turnouts, energy efficient streetlights, and synchronized traffic signals. In accordance with CEQA requirements and the CEQA review process, the County assesses the air quality impacts of new development projects, requires mitigation of potentially significant air quality impacts by conditioning discretionary permits, and monitors and enforces implementation of such mitigation measures.

The Los Angeles County General Plan 2035 provides the fundamental basis for the County's land use and development policy, and represents the basic community values, ideals, and aspirations to govern a shared environment through 2035 (LA County 2022). The General Plan addresses all aspects of development including public health, land use, community character, transportation, economics, housing, air quality, and other topics. The General Plan sets forth objectives, policies, standards, and programs for land use and new development, circulation and public access, and service systems for the Los Angeles County as a whole.

The applicable measures of the Los Angeles County General Plan Air Quality Element are specified below as being the most current standards.

Goal AQ-1: Protection from exposure to harmful air pollutants.

Policy AQ 1.1: Minimize health risks to people from industrial toxic or hazardous air pollutant emissions, with an emphasis on local hot spots, such as existing point sources affecting immediate sensitive receptors.

Policy AQ 1.2: Encourage the use of low or no volatile organic compound (VOC) emitting materials.

Policy AQ 1.3: Reduce particulate inorganic and biological emissions from construction, grading, excavation, and demolition to the maximum extent feasible.

Policy AQ 1.4: Work with local air quality management districts to publicize air quality warnings, and to track potential sources of airborne toxics from identified mobile and stationary sources.

Goal AQ-2: The reduction of air pollution and mobile source emissions through coordinated land use, transportation and air quality planning.

Policy AQ 2.1: Encourage the application of design and other appropriate measures when siting sensitive uses, such as residences, schools, senior centers, daycare centers, medical facilities, or parks with active recreational facilities within proximity to major sources of air pollution, such as freeways.

Policy AQ 2.2: Participate in, and effectively coordinate the development and implementation of community and regional air quality programs.

Policy AQ 2.3: Support the conservation of natural resources and vegetation to reduce and mitigate air pollution impacts.

Policy AQ 2.4: Coordinate with different agencies to minimize fugitive dust from different sources, activities, and uses.

3.1.3 Impact Analysis and Mitigation Measures

Thresholds of Significance

CEQA Guidelines Appendix G, Environmental Checklist Form, includes questions pertaining to air quality. The issues presented in the Environmental Checklist have been used as thresholds of significance in this section. Accordingly, the proposed project would have a significant adverse environmental impact if it would:

- Conflict with or obstruct implementation of the applicable air quality plan. (Refer to Impact 3.1-1)
- 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 (including releasing emissions which exceed quantitative threshold for ozone precursors. (Refer to Impact 3.1-2)
- Expose sensitive receptors to substantial pollutant concentrations. (Refer to Impact 3.1-3)
- Create objectionable odors affecting a substantial number of people. (Refer to Impact 3.1-4)

The State CEQA Guidelines (Section 15064.7) provide that, when available, the significance criteria established by other public agencies such as the applicable air quality management district or air pollution control district may be relied upon to make determinations of significance. The potential air quality impacts of the project are, therefore, evaluated according to specific thresholds developed by SCAQMD in the CEQA Air Quality Handbook, Air Quality Analysis Guidance Handbook, and subsequent guidance.

Regional Construction Emissions Thresholds

The SCAQMD has established numerical emission indicators of significance for construction. The numerical emission indicators are based on the recognition that the Air Basin is a distinct geographic area with a critical air pollution problem for which ambient air quality standards have been promulgated to protect public health. Given that construction impacts are temporary and limited to the construction phase, the SCAQMD has established significance thresholds specific to construction activity. Based on the indicators in the SCAQMD CEQA Air Quality Handbook, the project would potentially cause or contribute to an exceedance of an ambient air quality standard if the following would occur: Regional construction emissions from both direct and indirect sources would exceed any of the following SCAQMD prescribed daily emissions thresholds shown in **Table 3.1-4** (SCAQMD 2023).

TABLE 3.1-4
SCAQMD REGIONAL CONSTRUCTION EMISSIONS THRESHOLDS (POUNDS PER DAY)

Activity	VOC	NOx	CO	SO ₂	PM10	PM2.5
Construction	75	100	550	150	150	55

SOURCE: SCAQMD, 2023. South Coast AQMD Air Quality Significance Thresholds, March. <https://www.aqmd.gov/docs/default-source/ceqa/handbook/south-coast-aqmd-air-quality-significance-thresholds.pdf?sfvrsn=25>. Accessed February 2024.

Regional Operational Emissions Thresholds

The SCAQMD has established numerical emission indicators of significance for operations. The numerical emission indicators are based on the recognition that the Air Basin is a distinct geographic area with a critical air pollution problem for which ambient air quality standards have been promulgated to protect public health. The SCAQMD has established significance thresholds in part based on Section 182(e) of the CAA which identifies 10 tons per year of VOC as a significance level for stationary source emissions in extreme non-attainment areas for ozone. The Air Basin is designated as extreme non-attainment for ozone. The SCAQMD converted this significance level to pounds per day for ozone precursor emissions ($10 \text{ tons per year} \times 2,000 \text{ pounds per ton} \div 365 \text{ days per year} = 55 \text{ pounds per day}$). The numeric indicators for other pollutants are also based on federal stationary source significance levels. Based on the indicators in the SCAQMD CEQA Air Quality Handbook, the project would potentially cause or contribute to an exceedance of an ambient air quality standard if the following would occur.

Operational emissions exceed any of the following SCAQMD prescribed daily regional numeric indicators shown in **Table 3.1-5** (SCAQMD 2023).

TABLE 3.1-5
SCAQMD REGIONAL OPERATIONAL EMISSIONS THRESHOLDS (POUNDS PER DAY)

Activity	VOC	NOx	CO	SO ₂	PM10	PM2.5
Construction	55	55	550	150	150	55

SOURCE: SCAQMD, 2023. South Coast AQMD Air Quality Significance Thresholds, March. <https://www.aqmd.gov/docs/default-source/ceqa/handbook/south-coast-aqmd-air-quality-significance-thresholds.pdf?sfvrsn=25>. Accessed February 2024.

Localized Significance Thresholds

The SCAQMD has established screening criteria that can be used to determine the maximum allowable daily emissions that would satisfy the localized significance thresholds and therefore not cause or contribute to an exceedance of the applicable ambient air quality standards or ambient concentration limits without project-specific dispersion modeling. According to the CalEEMod methodology and SCAQMD guidance, the proposed project would disturb up to 1 acre per day (SCAQMD 2020). The project's localized emissions are conservatively analyzed against the 1-acre LST thresholds. The project is located in SRA 13 (Santa Clarita), with sensitive receptors located within 500 meters of the project site. **Table 3.1-6** highlights the SCAQMD LST construction and operational thresholds for a project located in SRA 13, with approximately 1 acre of disturbance per day, and a receptor distance of 500 meters.

TABLE 3.1-6
SCAQMD LOCALIZED SIGNIFICANCE EMISSIONS THRESHOLDS (POUNDS PER DAY)

Activity	NOx	CO	PM10	PM2.5
Construction	273	8,174	131	74
Operations	273	8,174	32	18

SOURCE: SCAQMD, 2009. Localized Significance Thresholds Appendix C – Mass Rate LST Look-up Tables, October 21. <https://www.aqmd.gov/docs/default-source/ceqa/handbook/localized-significance-thresholds/appendix-c-mass-rate-lst-look-up-tables.pdf?sfvrsn=2>. Accessed February 2024.

Toxic Air Contaminant Thresholds

Based on the criteria set forth by the SCAQMD, the project would expose sensitive receptors to substantial concentrations of toxic air contaminants if any of the following would occur (SCAQMD 2023):

- The project emits carcinogenic materials or TACs that exceed the maximum incremental cancer risk of ten in one million or a cancer burden greater than 0.5 excess cancer cases (in areas greater than or equal to 1 in 1 million) or chronic hazard index of 1.0.

Because the project would have limited sources of TACs associated with construction and would not have any stationary sources during operations, a qualitative assessment was used to determine whether the project would result in a significant impact by exceeding the above-referenced standard.

Methodology

Consistency with Air Quality Plan

The SCAQMD is required, pursuant to the CAA, to reduce emissions of criteria pollutants for which the Air Basin is in non-attainment of the NAAQS (e.g., ozone and PM_{2.5}). The SCAQMD's 2022 AQMP contains a comprehensive list of pollution control strategies directed at reducing emissions and achieving the NAAQS. These strategies are developed, in part, based on regional growth projections prepared by the SCAG. As part of its air quality planning, SCAG has prepared the Regional Comprehensive Plan and Guide and the 2020–2045 RTP/SCS which provide the basis for the land use and transportation components of the AQMP and are used in the preparation of the air quality forecasts and the consistency analysis included in the AQMP (SCAG 2020). Both the Regional Comprehensive Plan and AQMP are based, in part, on projections originating with county and city general plans. The 2022 AQMP was prepared to accommodate growth, reduce the high levels of pollutants within the areas under the jurisdiction of SCAQMD, return clean air to the region, and minimize the impact on the economy. Projects that are consistent with the assumptions used in the AQMP do not interfere with attainment because the growth is included in the projections utilized in the formulation of the AQMP. Thus, projects, uses, and activities that are consistent with the applicable growth projections and control strategies used in the development of the AQMP would not jeopardize attainment of the air quality levels identified in the AQMP, even if they exceed the SCAQMD's numeric indicators. As noted above, the 2022 AQMP was adopted by the SCAQMD and CARB and therefore will be used for consistency in this analysis.

Regional Criteria Pollutant Emissions

Construction Emissions

Maximum daily construction emissions were estimated for each construction phase. Some individual construction phases potentially overlap and the maximum daily emissions include these overlaps by combining the relevant construction phase emissions. The maximum daily emissions are predicted values for a representative worst-case day and do not represent emissions that would occur for every day of construction. Detailed emissions calculations are provided in Appendix B of this Draft EIR.

Construction of the project has the potential to generate temporary criteria pollutant emissions through the use of heavy-duty construction equipment, such as excavators and backhoes, and through vehicle trips generated from workers and haul trucks traveling to and from the project site. On average, there would be approximately 10 hauling trucks and 8 vendor truck trips per day during the underground retaining wall/outfall phase. The assessment of construction air quality impacts considers each of these potential

sources. Mobile source emissions, primarily NO_x, would result from the use of construction equipment such as tractors and loaders. Construction emissions can vary substantially from day to day, depending on the level of activity, the specific type of construction activity, and prevailing weather conditions. The assessment of construction air quality impacts considered each of these potential sources. Construction emissions were compared to the SCAQMD prescribed daily regional numerical indicators of significance as shown in Table 3.1-4. If construction emissions exceed any of the applicable numerical indicators, the project would potentially cause or contribute to an exceedance of an ambient air quality standard.

Emissions were estimated using the CalEEMod version 2022.1.1, the most recent version of CalEEMod (<http://www.caleemod.com/>). CalEEMod is a statewide land use emissions computer model designed to provide a uniform platform for government agencies, land use planners, and environmental professionals to quantify potential criteria pollutant and greenhouse gas emissions from a variety of land use projects. CalEEMod was developed in collaboration with the air districts of California. Regional data (e.g., emission factors, trip lengths, meteorology, source inventory, etc.) have been provided by the various California air districts to account for local requirements and conditions. The model is considered to be an accurate and comprehensive tool for quantifying criteria pollutant and GHG emissions from construction and operations of various land use projects throughout California.

Daily regional emissions during construction are forecasted by assuming a conservative estimate of construction activities (i.e., assuming all construction occurs at the earliest feasible date) and applying the mobile source and fugitive dust emissions factors. CalEEMod utilizes emission factors for off-road equipment from CARB's OFFROAD model and on-road vehicles from CARB's Emission FACTors (EMFAC) model. OFFROAD and EMFAC emission factors were used to calculate emissions from construction activities, including on- and off-road vehicles. Embedded within CalEEMod 2022 are on-road mobile source emission factors from the EMFAC2021 dataset from CARB. The project's calculated construction emissions are based on EMFAC2021 emission factors. The input values used in this analysis are based on CalEEMod default values for phase length, construction equipment, worker trips, vendor trips, and hauling trips except where project-specific information was provided and confirmed by the Applicant. These values were then applied to the construction phasing assumptions used in the criteria pollutant analysis to generate criteria pollutant emissions values for each construction activity. Detailed construction equipment lists, construction scheduling, and emissions calculations are provided in Appendix B of this Draft EIR.³

Construction of the project would begin as early as the fourth quarter of 2025 and would last 23 months. Construction on the middle underground retaining wall and both outfalls will occur simultaneously. Construction may commence on a later date or construction could occur over a longer period of time than that analyzed in this air quality impact analysis. Should the project commence construction on a later date or occur over a longer period of time than that analyzed in this air quality impact analysis, air quality impacts would be less than the impacts disclosed herein due to a more energy-efficient and cleaner burning construction equipment fleet mix and/or reduced peak daily emissions.

³ Construction modeling is based on a construction start year of 2025, which would be more conservative than future years as equipment gets cleaner in the future.

Subphases of construction would include demolition, grading/excavation, and underground retaining wall/outfall construction. Construction of the underground retaining wall and outfall structures would take place concurrently.

Earthwork would require a net import of approximately 6,000 cy of riprap and 113 cy of granular bedding material for construction of the underground retaining wall and outfalls. The proposed project would excavate to a maximum depth of approximately 70 feet below grade and approximately four feet wide for installation of a secant pile wall (SPW) and approximately 40 to 70 feet deep and 8-foot diameter individual columns for Cement Deep Soil Mixing (CDSM). This would result in approximately 19,000 cy of soil spoils due to CDSM activities to be exported offsite. The proposed project would include import of 4,500 cy of concrete for the secant piles and 5,000 tons of concrete for the CDSM piles. Cement would be mixed on-site at a concrete batch plant. Export materials will be hauled to the closest landfill.

Emissions Sources

Off-road equipment emissions, primarily NO_x and particulate matter, would result from the use of heavy construction equipment such as backhoes, loaders, drill rigs, cranes, and other equipment; refer to Appendix B. Construction emissions can vary substantially from day to day, depending on the level of activity, the specific type of operation and, for dust, the prevailing weather conditions. The assessment of construction air quality impacts considers each of these potential sources.

Construction generates on-road vehicle exhaust, evaporative, and dust emissions from workers, vendors, and haul trucks traveling to and from the site. These emissions are based on the number of trips and default CalEEMod vehicle miles traveled (VMT) along with emission factors from EMFAC2021.

Operational Emissions

The project would result in improvements to two existing discharge outfalls and an existing retaining wall. However, operation of the VWRP would remain similar to existing conditions and the project would not result in new operational emissions. Therefore, operational emissions are analyzed qualitatively.

Substantial Pollutant Concentrations

The localized effects from the on-site portion of the emissions are evaluated at nearby receptor locations potentially impacted by the project according to the SCAQMD's Localized Significance Threshold Methodology (June 2003, revised July 2008), which relies on on-site mass emission rate screening tables and project-specific dispersion modeling, where appropriate. The localized significance thresholds are only applicable to NO_x, CO, PM₁₀, and PM_{2.5}. For NO_x and CO, the thresholds are based on the ambient air quality standards. For PM₁₀ and PM_{2.5}, the thresholds are based on requirements in SCAQMD Rule 403, Fugitive Dust. The SCAQMD has established screening criteria that can be used to determine the maximum allowable daily emissions that would satisfy the localized significance thresholds and therefore not cause or contribute to an exceedance of the applicable ambient air quality standards without project-specific dispersion modeling. The screening criteria depend on: (1) the area in which the project is located, (2) the size of the project site, and (3) the distance between the project site and the nearest exposed individual. The maximum daily onsite emissions from construction and operation of the proposed project were compared to these screening criteria. Based off the LST guidance, the proposed project could disturb up to 3.26 acres per day. As sensitive receptors are located more than a ¼ mile from the project site, the LST threshold for 500 meters (1,640 feet) were adopted. As discussed above, for the

localized construction emissions, the screening criteria used in the analysis was for a 2-acre of disturbance per day in the SRA 13 (Santa Clarita) area with sensitive receptors located 500 meters (1,640 feet) away.

CO Hot Spots

In addition, emissions of CO are produced in greatest quantities from motor vehicle combustion and are usually concentrated at or near ground level because they do not readily disperse into the atmosphere, particularly under cool, stable (i.e., low or no wind) atmospheric conditions. Localized areas where ambient concentrations exceed state and/or federal standards are termed CO hotspots. The potential for the project to cause or contribute to the formation of offsite CO hotspots are evaluated based on prior dispersion modeling of the four busiest intersections in the Air Basin that has been conducted by the SCAQMD for its CO Attainment Demonstration Plan in the AQMP. The analysis compares the intersections with the greatest peak-hour traffic volumes that would be impacted by the project to the intersections modeled by the SCAQMD. Project impacted intersections with peak-hour traffic volumes that are lower than the intersections modeled by the SCAQMD, in conjunction with lower background CO levels, would result in lower overall CO concentrations compared to the SCAQMD modeled values in its AQMP.

Toxic Air Contaminants

Construction

Construction activities would occur on the project site over approximately 23 months. For potential health risks, the construction duration would be significantly lower than the 30-year residential exposure period associated with cancer health risks. Sensitive receptors (i.e., residential receptors) may be exposed to diesel particulate matter (DPM), which the State of California has identified as a toxic air contaminant (TAC), from the exhaust from construction equipment and diesel-fueled motor vehicles. The construction area is spread out over approximately 3.26 acres with open space buffers along multiple project boundaries. Construction activities will move around the project site, and construction near any single receptor is expected to be of a much shorter duration than the estimated 23-month construction schedule.

Health risk impacts would not be anticipated due to the short-term and temporary construction duration, the buffers and distance to nearby sensitive receptors, the movement of construction activities around the project site and short time frame near any single receptor, and the correspondingly small emissions relative to the SCAQMD thresholds. Furthermore, construction contractors would be required to comply with regulations that limit diesel emissions, such as the CARB Air Toxics Control Measure that limits diesel vehicle idling to no more than five minutes at a location (Section 2485 in Title 13 of the California Code of Regulations [CCR]), the Truck and Bus regulation that reduces NO_x, PM₁₀, and PM_{2.5} emissions from existing diesel vehicles operating in California (13 CCR, Section 2025) and the In-Use Off-Road Diesel Fueled Fleets regulation that reduces emissions by the installation of diesel soot filters and encouraging the retirement, replacement, or repower of older, dirtier engines with newer emission controlled models (13 CCR, Section 2449).

Operation

The project would result in improvements to two existing discharge outfalls and an existing retaining wall. However, operation of the VWRP would remain similar to existing conditions and the project would not result in new operational emissions. Therefore, operational emissions are analyzed qualitatively.

Impact Analysis

Applicable Air Quality Plan

Impact 3.1-1: The proposed project could conflict with or obstruct implementation of the applicable air quality plan.

Underground Retaining Wall and Outfall Structures

Construction

The SCAQMD recommends that lead agencies demonstrate that a project would not directly obstruct implementation of an applicable air quality plan and that a project be consistent with the assumptions (typically land-use related, such as resultant employment or residential units) upon which the air quality plan is based. The project's construction would result in an increase in short-term employment compared to existing conditions. Being relatively small in number and temporary in nature, construction jobs under the project would not conflict with the long-term employment projections upon which the AQMP is based. Control strategies in the AQMP with applicability to short-term emissions from construction activities include strategies denoted in the 2022 AQMP as MOB-06 and MOB-11 and are intended to reduce emissions from on-road and off-road heavy-duty vehicles and equipment by accelerating replacement of older, emissions prone engines with newer engines meeting more stringent emission standards. Construction contractors would be required to comply with the CARB Air Toxic Control Measure that limits heavy duty diesel motor vehicle idling to no more than five minutes at any given location with certain limited exceptions defined in the regulation for equipment in which idling is integral to the function of the equipment or activity (such as concrete trucks and concrete pouring). In addition, contractors would be required to comply with required and applicable best available control technology (BACT) and the CARB In-Use Off-Road Diesel Vehicle Regulation to use lower emitting equipment in accordance with the phased-in compliance schedule for equipment fleet operators. The project would not conflict with implementation of these strategies. The project is also required to comply with SCAQMD regulations for controlling fugitive dust pursuant to SCAQMD Rule 403.

Compliance with these requirements is consistent with and meets or exceeds the AQMP requirements for control strategies intended to reduce emissions from construction equipment and activities. Therefore, construction of the project would not conflict with or obstruct implementation of the AQMP, and impacts would be less than significant.

Operation

The AQMP was prepared to accommodate growth, reduce the levels of pollutants within the areas under the jurisdiction of SCAQMD, return clean air to the region, and minimize the impact on the economy. Projects that are considered consistent with the AQMP would not interfere with attainment because this growth is included in the projections used in the formulation of the AQMP. The project would result in improvements to the middle section underground retaining wall and two discharge outfalls. However, operation of the VWRP would remain similar to existing conditions and the project would not result in new growth and would not interfere with growth projections contained in the 2020-3045 RTP/SCS, which forms the basis of the growth projections in the 2022 AQMP. Additionally, operation of the project would not result in new emissions over those of existing conditions. As a result, the project would not conflict with or obstruct implementation of the AQMP and impacts would be less than significant.

Mitigation Measures

None Required

Significance Determination

Less than Significant Impact

Regional Emissions

Impact 3.1-2: The proposed project could 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.

Underground Retaining Wall and Outfall Structures

Construction

Construction of the project has the potential to generate temporary regional criteria pollutant emissions through the use of heavy-duty construction equipment, such as backhoes, loaders, drill rigs, cranes, and other equipment; and through vehicle trips generated by workers and haul trucks traveling to and from the project site. In addition, fugitive dust emissions would result from site preparation and various soil-handling activities. Mobile source emissions, primarily NO_x, would result from the use of construction equipment such as drill rigs, cranes, dozers, and loaders. Construction emissions can vary substantially from day to day, depending on the level of activity, the specific type of construction activity, and prevailing weather conditions.

The results of the unmitigated criteria pollutant calculations are presented in **Table 3.1-7, *Maximum Unmitigated Regional Construction Emissions (Pounds per Day)***. The maximum daily construction emissions for the project were estimated for each construction phase. These calculations assume compliance with applicable dust control measures during each phase of construction, as required by SCAQMD Rule 403 (Control of Fugitive Dust). The maximum daily emissions are predicted values for a representative worst-case day, and do not represent the actual emissions that would occur for every day of construction, which would likely be lower on many days. As shown in Table 3.1-7, construction-related daily criteria air pollutant emissions would not exceed the SCAQMD regional significance thresholds during any phase of construction. Therefore, with respect to regional emissions from unmitigated construction activities, impacts would be less than significant.

Operation

The project would result in improvements to the middle section underground retaining wall and two discharge outfalls. The operation of the VWRP would remain similar to existing conditions and the project would not result in the generation of new operational criteria pollutant emissions. As a result, the project would not result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard and impacts would be less than significant.

TABLE 3.1-7
ESTIMATED MAXIMUM UNMITIGATED REGIONAL CONSTRUCTION EMISSIONS (POUNDS PER DAY)

Phase and Year	VOC	NO _x	CO	SO ₂	PM10 ^a	PM2.5 ^a
Maximum Daily Emissions per Phase						
Demolition – 2026	2.14	19.21	17.62	0.03	0.97	0.77
Grading/Excavation – 2026	1.58	11.21	14.79	0.04	0.92	0.49
Underground Retaining Wall/Outfall Structures – 2026	1.72	15.23	21.04	0.04	2.19	0.80
Underground Retaining Wall/Outfall Structures – 2027	1.69	14.48	20.94	0.04	2.15	0.76
Maximum Daily Emissions	2.14	19.21	20.94	0.04	2.19	0.80
SCAQMD Numeric Indicators	75	100	550	150	150	55
Exceeds Thresholds?	No	No	No	No	No	No

NOTES:

Totals may not add up exactly due to rounding in the modeling calculations. Detailed emissions calculations are provided in Appendix B of this Draft EIR.

a. Emissions include fugitive dust control measures consistent with SCAQMD Rule 403.

SOURCE: ESA, VWRP Middle Section Retaining Wall Ground Improvement Project Air Quality Memorandum, February 2024.

Mitigation Measures

None Required

Significance Determination

Less than Significant Impact

Localized Emissions

Impact 3.1-3: The proposed project could expose sensitive receptors to substantial pollutant concentrations.

Underground Retaining Wall and Outfall Structures

Construction

The Localized construction emissions analysis only included on-site emissions from heavy-duty construction equipment in accordance with SCAQMD localized methodology. Localized emissions are the same as regional emissions except that they don't include off-site (mobile) emissions. Table 3.1-6, above, shows the SCAQMD LST construction thresholds adopted for this project. As shown in **Table 3.1-8**, maximum localized construction emissions for sensitive receptors would not exceed the localized threshold of significance for any criteria pollutant. As the proposed project's maximum localized emissions from construction would not exceed the localized thresholds of significance, localized construction emissions impacts would be less than significant. Detailed emissions calculations are provided in Appendix B of this Draft EIR.

TABLE 3.1-8
ESTIMATED MAXIMUM LOCALIZED CONSTRUCTION EMISSIONS (POUNDS PER DAY)

Phase	NO _x	CO	PM10 ^a	PM2.5 ^a
Demolition – 2026	19.00	17.00	0.80	0.73
Grading/Excavation – 2026	10.50	13.50	0.55	0.39
Underground Retaining Wall/Outfall – 2026	14.00	19.30	1.67	0.66
Underground Retaining Wall/Outfall – 2027	13.30	19.30	1.63	0.62
Maximum Localized (On-Site) Emissions	19.00	19.30	1.67	0.73
SCAQMD Screening Numeric Indicator^b	273	8,174	131	74
Exceed Screening Numeric Indicator?	No	No	No	No

NOTES:

Totals may not add up exactly due to rounding in the modeling calculations. Detailed emissions calculations are provided in Appendix B of this Draft EIR.

a. Emissions include fugitive dust control measures consistent with SCAQMD Rule 403.

b. The SCAQMD LSTs are based on Source Receptor Area 13 (Santa Clarita) for a 1-acre site with sensitive receptors conservatively assumed to be located 500 meters from the nearest sensitive receptor.

SOURCE: ESA, VWRP Middle Section Retaining Wall Ground Improvement Project Air Quality Memorandum, February 2024.

Operation

The project would result in improvements to the middle section underground retaining wall and two discharge outfalls. The operation of the VWRP would remain similar to existing conditions and the project would not result in the generation of new operational criteria pollutant emissions. As a result, the project would not result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard and impacts would be less than significant.

Mitigation Measures

None Required

Significance Determination

Less than Significant Impact

Carbon Monoxide Hotspots

Underground Retaining Wall and Outfall Structures

Construction

As shown previously in Table 3.1-2, above, CO levels in the project area are substantially below the federal and state standards. Maximum CO levels in recent years are 1.5 ppm (one-hour average) and 0.8 ppm (eight-hour average) compared to the thresholds of 20 ppm (one-hour average) and 9.0 ppm (eight-hour average). No exceedances of CO have been recorded at the SRA 13 monitoring stations in the last three years, as shown in Table 3.1-2, and the Air Basin is currently designated as a CO attainment area for both the CAAQS and NAAQS. Thus, it is not expected that CO levels at project-impacted intersections would rise to the level of an exceedance of these standards.

Additionally, the SCAQMD conducted CO modeling for the 2003 AQMP for the four worst-case intersections in the Air Basin. These include (a) Wilshire Boulevard and Veteran Avenue; (b) Sunset Boulevard and Highland Avenue; (c) La Cienega Boulevard and Century Boulevard; (d) Long Beach

Boulevard and Imperial Highway. In the 2003 AQMP, the SCAQMD notes that the intersection of Wilshire Boulevard and Veteran Avenue is the most congested intersection in Los Angeles County, with an average daily traffic volume of about 100,000 vehicles per day. This intersection is located near the on- and off-ramps to Interstate 405 in West Los Angeles. The evidence provided in Table 4-10 of Appendix V of the 2003 AQMP shows that the peak modeled CO concentration due to vehicle emissions at these four intersections was 4.6 ppm (one-hour average) and 3.2 (eight-hour average) at Wilshire Boulevard and Veteran Avenue.

The amount of construction worker vehicles and trucks commuting to the project site daily would be well below 100,000 vehicles. However, even assuming the project would have the peak modeled CO concentration at Wilshire Boulevard and Veteran Avenue, when added with the maximum CO level in the project vicinity, the project would have a CO concentration of 6.1 ppm ($4.6 + 1.5$) for the one-hour-average and 4.0 ppm ($3.2 + 0.8$) for the eight-hour average which would still be below the thresholds of 20 ppm (one-hour average) and 9.0 ppm (eight-hour average). Thus, this comparison demonstrates that construction of the project would not contribute considerably to the formation of CO hotspots during construction. Therefore, the project would not expose sensitive receptors to substantial CO pollutant concentrations and impacts would be less than significant.

Operation

The project would result in improvements to the middle section underground retaining wall and two discharge outfalls. As such, there would be no new vehicle trips associated with the operation of the project. Since there are no new vehicle trips, operation of the project would not contribute considerably to the formation of CO hotspots. Therefore, the project would result in less than significant impacts with respect to CO hotspots as it would not expose sensitive receptors to substantial CO pollutant concentrations.

Mitigation Measures

None Required

Significance Determination

Less than Significant Impact

Toxic Air Contaminants

Underground Retaining Wall and Outfall Structures

Construction

Construction activities would occur on the project site over approximately 20 months. For potential health risks, the construction duration would be significantly lower than the 30-year residential exposure period associated with cancer health risks. Sensitive receptors (i.e., residential receptors) may be exposed to DPM, a TAC, from the exhaust from construction equipment and diesel-fueled motor vehicles. The construction area is spread out over the approximately 3.26-acre project site, with sensitive receptor distances located more than $\frac{1}{4}$ mile from construction activity.

Health risk impacts would not be anticipated due to the short-term and temporary construction duration, the buffers to nearby sensitive receptors, the movement of construction activities around the project site and short time frame near any single receptor, and the small number of construction equipment.

Furthermore, as shown in Table 3.1-8, the proposed project construction PM10 (DPM) and PM2.5 emissions are below the SCAQMD thresholds. Furthermore, construction contractors would be required to comply with regulations that limit diesel emissions, such as the CARB Air Toxics Control Measure that limits diesel vehicle idling to no more than five minutes. Therefore, the project would not expose sensitive receptors to substantial TAC emissions and impacts would be less than significant.

Operation

The project would result in improvements to the middle section underground retaining wall and two discharge outfalls. TAC emissions are not expected from either of these improvements. Additionally, the operation of the VWRP would not significantly change from existing operations as a result of the project, since it is just improvements to already existing infrastructure. Thus, operation of the project would not expose sensitive receptors to substantial toxic air contaminant concentrations and impacts would be less than significant.

Mitigation Measures

None Required

Significance Determination

Less than Significant Impact

Other Emissions such as Odors

Impact 3.1-4: The proposed project could create objectionable odors affecting a substantial number of people.

Underground Retaining Wall and Outfall Structures

Construction

Potential sources that may emit odors during construction activities include the combustion of diesel fuel in on- and off-road equipment, as well as architectural coatings and solvents. Through mandatory compliance with SCAQMD Rules, no construction activities or materials are expected to create objectionable odors affecting a substantial number of people. Therefore, construction activities for the project would result in less than significant impacts with respect to other emissions, including those leading to odors.

Operation

Land uses typically producing objectionable odors include agricultural uses, wastewater treatment plants, food processing plants, chemical plants, composting, refineries, landfills, dairies, and fiberglass molding. Although the project is in a water reclamation plant, the improvements to the underground retaining wall and outfall structures would not result in the emission of odors. Furthermore, the project would comply with SCAQMD Rule 402 – Nuisance. Therefore, potential odor impacts would be less than significant.

Mitigation Measures

None Required

Significance Determination

Less than Significant Impact

Cumulative Impacts: Air Quality

Impact 3.1-5: Concurrent construction and operation of the proposed project and related projects in the geographic scope could result in cumulative short-term and long-term impacts to air quality.

Future cumulative developments near the proposed project are identified in Table 3-2 would involve construction and operation of hotel land uses, public infrastructure projects, and facility improvements. The proposed project's potential air quality impacts are well below their corresponding significance thresholds based on conservative assumptions surrounding proximity and schedule. Because implementation of the proposed project would not contribute to an exceedance of an air quality significance threshold and the components of the proposed project are located a considerable distance apart, the proposed project would be less than cumulatively considerable. As previously discussed, the proposed project would result in periodic inspection and maintenance but is not expected to produce any new permanent sources of direct emissions. Therefore, there would not be the potential for the proposed project, in conjunction with other potential planned projects, to result in a cumulatively considerable impact. Impacts would be less than significant.

Mitigation Measures

None Required

Significance Determination

Less than Significant Impact

3.1.4 References

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3.2 Biological Resources

The information in this section has been derived from the Biological Constraints Analysis (BCA) included as Appendix C, *Biological Constraints Analysis*. This section addresses the impacts to biological resources associated with implementation of the proposed project and analyzes an approximately 3.26-acre impact area and 57.31-acre survey buffer. For the purposes of this section, the project site and surrounding buffer is herein referred to as the “biological study area.” The project site and surrounding 100-foot buffer is herein referred to as the “aquatic resources study area” based on focused field surveys and review of existing resources. This section includes a description of the existing biological resources conditions within the proposed project site, a summary of the applicable regulations, and an evaluation of the potential impacts of the proposed project related to biological resources, with implementation of mitigation measures where applicable.

Literature Review

The analysis includes queries and review of the following resource databases and resources:

- California Department of Fish and Wildlife (CDFW) California Natural Diversity Database (CDFW 2024a)
- CDFW’s connectivity mapper (CDFW 2024b)
- CDFW Sensitive Natural Communities (CDFW 2024c)
- California Native Plant Society (CNPS), Inventory of Rare and Endangered Vascular Plants of California (CNPS 2024)
- Natural Resource Conservation Service (NRCS), Web Soil Survey (NRCS 2024)
- U.S. Fish and Wildlife Service (USFWS), Critical Habitat Portal (USFWS 2024a)
- USFWS, Information for Planning and Consultation (USFWS 2024b)
- South Coast Missing Linkages (South Coast Wildlands 2008)
- LA County sensitive bird list (Allen et al. 2009)

A biological constraints analysis and focused rare plant survey were conducted at the site on March 4, 2022 (Appendix C). The 2022 focused rare plant survey efforts were conducted pursuant to *Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Sensitive Natural Communities* (CDFW 2018), and a visual inspection of species composition was conducted to accurately describe each community

The natural communities and land cover types were updated during a biological reconnaissance survey conducted on December 19, 2023. A report documenting the survey is included as Appendix C of this document. The survey was completed by walking the study area to characterize and map vegetation, and to determine the potential for special-status plants and wildlife to occur. All native and non-native plant communities and land uses were characterized and delineated on aerial photographs during the field survey, and then digitized on aerial maps using a Geographic Information System software (ArcGIS). Most descriptions of vegetation were characterized in the field in accordance with *A Manual of California*

Vegetation Online (Sawyer et al. 2009); however, others were based on dominant species or notable features, when a vegetation alliance listed in the Manual was not appropriate.

All incidental, visual observations of flora and fauna, including sign (e.g., presence of scat) as well as any audible detections, were noted during the assessment and are described further below in this report.

3.2.1 Environmental Setting

Soils and Topography

The Valencia Water Reclamation Plant (VWRP) is situated immediately adjacent to the Santa Clara River; topography slopes down to the west from approximately 1,050 feet above mean sea level (amsl), at a 10 percent grade, to approximately 1,030 feet amsl, along the Santa Clara River. Five soil types were documented within the study area; riverwash, sandy alluvial land, Mocho Loam, 0 to 2 percent slopes, Castaic Balcom silty clay loams, 9 to 15 percent slopes, and Zamora Loam, 2 to 9 percent slopes (NRCS 2024). Soils mapped within the study area are presented in **Figure 3.2-1**.

Riverwash

Riverwash soils are excessively drained and are derived from alluvium. The soil consists of sand from 0 to 6 inches and stratified coarse sand to sandy loam from 6 to 60 inches. It is considered a hydric soil and is typical of drainages (NRCS 2024). This soil type encompasses a small portion of the proposed project impact area.

Sandy Alluvial Land

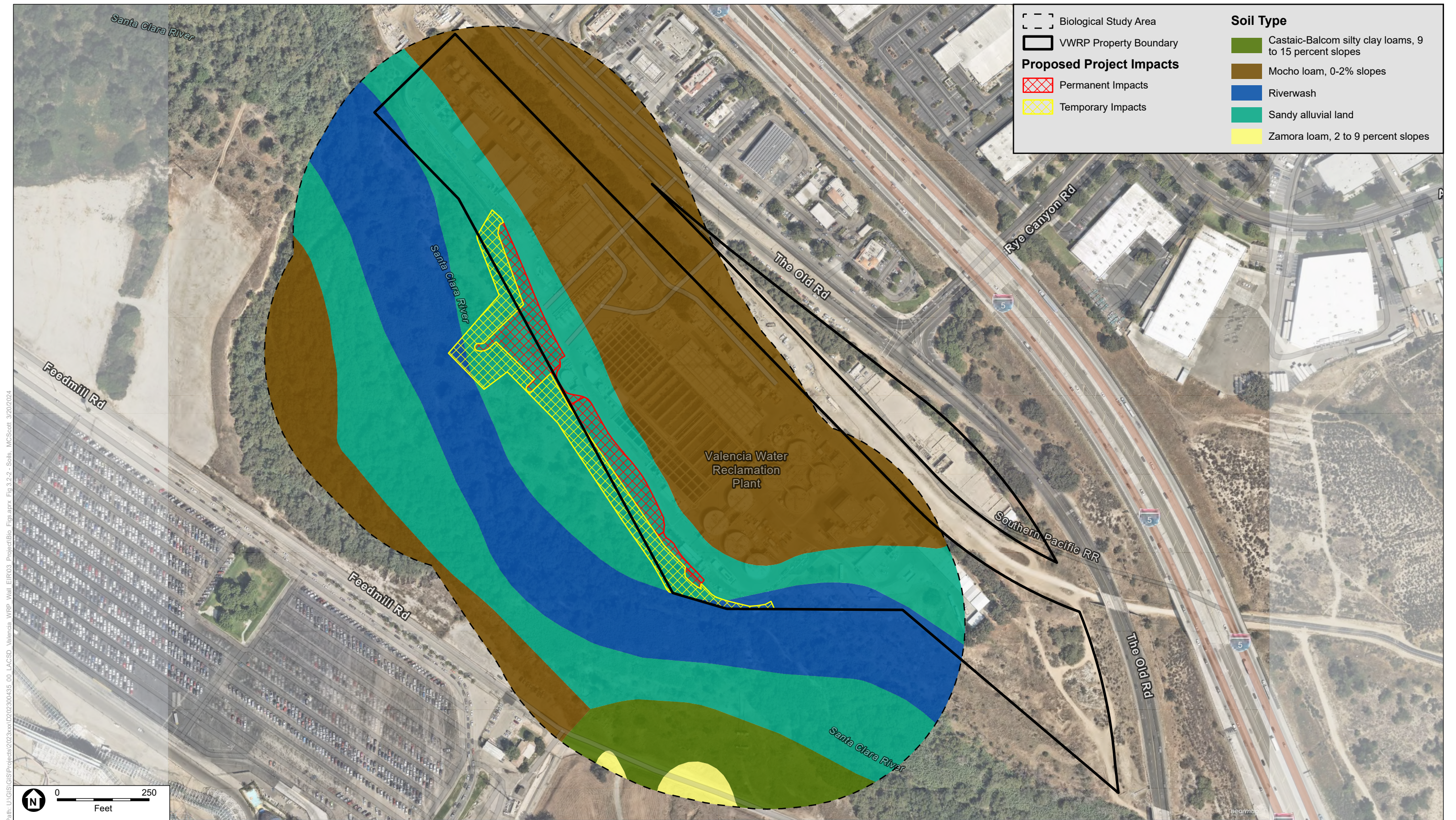
Sandy alluvial land soils are excessively drained and derived from alluvium. The profile consists of sand 0 to 10 inches, stratified sand to loam 10 to 30 inches, and stratified gravelly sand to gravelly loam 30 to 60 inches. It is considered a hydric soil and is typical of floodplains (NRCS 2024). This soil type covers most of the proposed project impact area.

Mocho Loam, 0 to 2 percent slopes

Mocho loam soils are well draining soils. Its parent material is alluvium derived from sedimentary rock. Depth to duripan is more than 80 inches. The profile consists of loam 0 to 60 inches. It is not considered a hydric soil and is typical of alluvial fans (NRCS 2024). This soil type is found within the study area, outside of the proposed project impact area.

Castaic-Balcom Silty Clay Loams, 9 to 15 percent slopes

Castaic-Balcom silty clay loam soils are well draining soils. Its parent material is residuum derived from sedimentary rock. Depth to duripan is at least 22 inches. The profile consists of silty clay loam 0 to 26 inches and 26-30 inches weathered bedrock. It is not considered a hydric soil (NRCS 2024). This soil type is found within the study area, outside of the proposed project impact area.



SOURCE: ESA, 2024; USGS Soil , 2024

VWRP Middle Section Retaining Wall Ground Improvement Project

Figure 3.2-1
Soils

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Zamora Loam, 2 to 9 percent slopes

Zamora loam soils are well draining soils. Its parent material is alluvium derived from sedimentary rock. Depth to duripan is more than 80 inches. The profile consists of loam 0 to 11 inches, 11-35 inches clay loam, and 25-84 inches loam. It is not considered a hydric soil (NCRS 2024). This soil type is found within the study area, outside of the proposed project impact area.

Natural Communities and Land Cover Types

A total of eleven natural communities and land cover types were documented within the study area during the 2023 survey (See Appendix C) and are presented in **Table 3.2-1**. In addition, **Figure 3.2-2A** depicts the natural communities and land cover types within the Study Area and **Figure 3.2-2B** depicts them within the proposed project impact areas. All plants observed within the study area were recorded and unidentified species were keyed to the species level using the 2012 Jepson Manual (Baldwin et al. 2012). A comprehensive list of plant species observed during the site visit is provided in Appendix C, *Floral and Faunal Compendia*.

TABLE 3.2-1
SUMMARY OF NATURAL COMMUNITIES AND LAND COVER TYPES WITHIN THE BIOLOGICAL STUDY AREA

Natural Community/Land Cover Type	Proposed Project Site (acres)	500-ft Buffer (acres)	Total Biological Study Area (acres)
Big Sagebrush	-	0.29	0.29
Blue Elderberry Woodland	0.16	0.11	0.27
California Rose Briar Patches	0.02	-	0.02
California Sagebrush Scrub (restored)	0.01	0.11	0.12
Fremont Cottonwood-Arroyo Willow Forest	0.11	0.48	0.59
Fremont Cottonwood Forest	1.65	22.09	23.74
Giant Reed Marshes	0.36	3.42	3.78
Non-native Annual Grasses and Forbs	0.58	3.37	3.95
Red Willow Forest	-	1.07	1.07
Sandbar Willow Forest	-	0.04	0.04
Tamarisk Thickets	0.04	-	0.04
Disturbed	0.17	-	0.17
Developed	0.17	23.07	23.24
Total	3.26	54.05	57.31

NOTES:

a. Acreages may not sum due to rounding.

SOURCE: ESA 2024.

Big Sagebrush (*Artemisia tridentata* shrubland)

Big sagebrush occurs in two locations, both in the northern section of the study area, adjacent to the VWRP. It consists of a dense shrub layer dominated by big sagebrush (*Artemisia tridentata*) interspersed with California sagebrush (*A. californica*). A sparse understory supports various grasses and forbs, including wild oat (*Avena fatua*), ripgut brome (*Bromus diandrus*), and short-podded mustard (*Hirschfeldia incana*).

Blue Elderberry Woodland (*Sambucus mexicana* Woodland)

Blue elderberry woodland occurs in two locations, the northern and central portions of the study area, adjacent to the VWRP. The community is characterized by a dense tree canopy dominated by blue elderberry (*Sambucus mexicana*) interspersed with mulefat (*Baccharis salicifolia*) and Fremont cottonwood (*Populus fremontii*). A sparse herbaceous understory supports scattered grasses and forbs, including redstem filaree (*Erodium cicutarium*), ripgut brome, short-podded mustard, and wild oats.

California Rose Briar Patches (*Rosa californica* Shrubland)

California rose briar patches occur along one location within the central portion of the study area, immediately adjacent to the project site. It is characterized by a dense shrub layer that consists almost entirely of California rose (*Rosa californica*).

California Sagebrush Scrub (Restored) (*Artemisia californica* Shrubland)

California sagebrush (restored) occurs along the northern section of the study area, adjacent to the VWRP. It is characterized by the dominance of California sagebrush in the shrub layer, interspersed with big sagebrush, mulefat, and black sage (*Salvia mellifera*). A sparse understory supports scattered grasses and forbs, including jimsonweed (*Datura wrightii*), saltgrass (*Distichlis spicata*). This community was created to mitigate the impacts associated with the northern retaining wall project.

Fremont Cottonwood-Arroyo Willow Forest (*Populus fremontii*-*Salix lasiolepis* Forest)

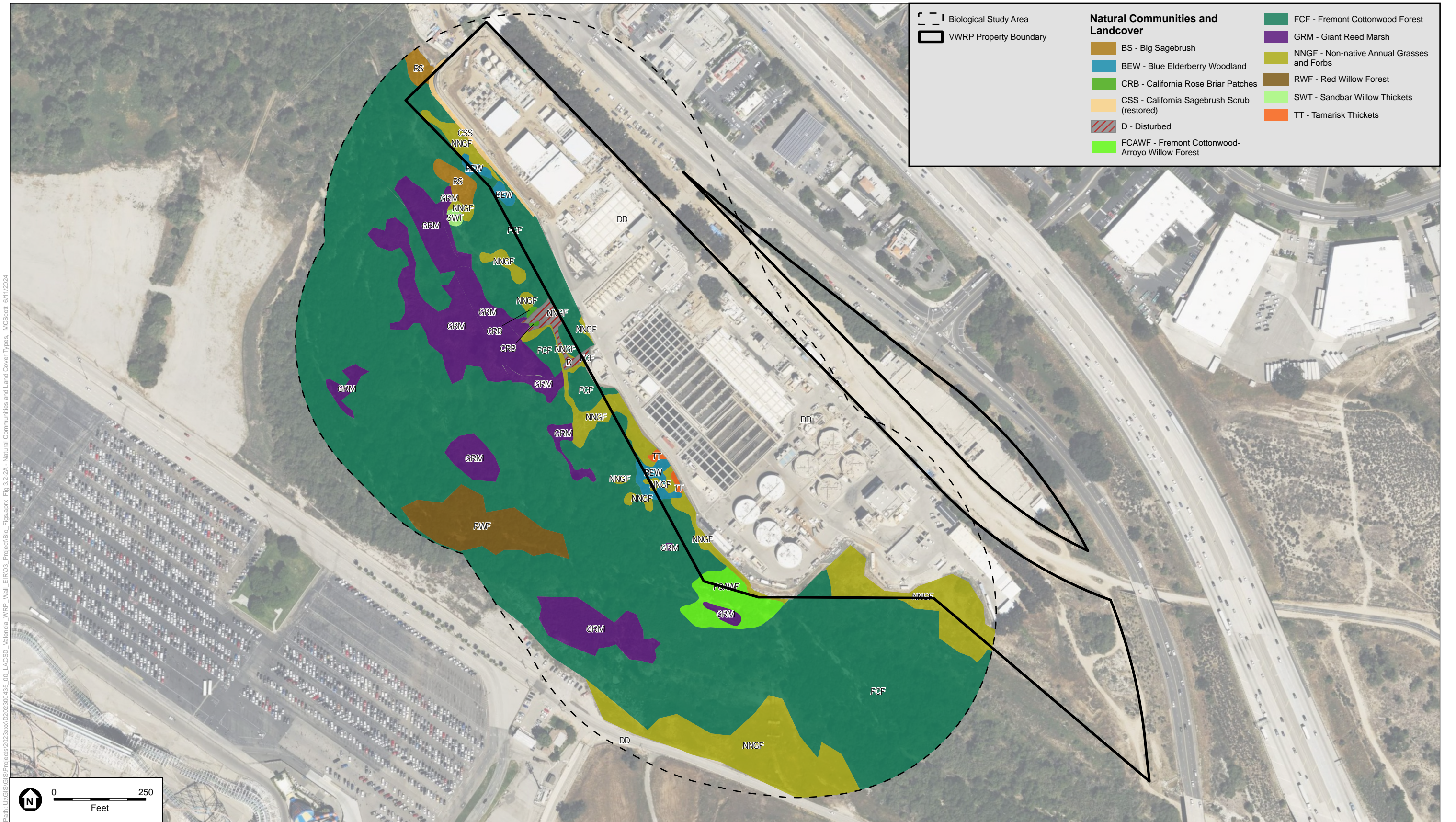
Fremont cottonwood-arroyo willow forest occurs in the southern section of the study area. This community is characterized by a tree canopy with a co-dominance of Fremont cottonwood and arroyo willow (*Salix lasiolepis*), interspersed with giant reed (*Arundo donax*), blue elderberry, mulefat, and red willow (*S. laevigata*). A dense understory of grasses and forbs includes poison hemlock (*Conium maculatum*), ripgut brome, stinging nettle (*Urtica dioica*), dwarf nettle (*U. urens*), and wild oats.

Fremont Cottonwood Forest (*Populus fremontii* Forest)

Fremont cottonwood forest occurs throughout a majority of the study area, adjacent to the VWRP. This community is characterized by a tree canopy dominated by Fremont cottonwood interspersed with blue elderberry, giant reed, mulefat, and red willow. A dense herbaceous understory supports various shrubs, grasses and forbs including dwarf nettle, chaparral mallow (*Malacothamnus fasciculatus*), tree tobacco (*Nicotiana glauca*), poison hemlock, ripgut brome, stinging nettle and wild oats.

Giant Reed Marshes (*Arundo donax* Marshes)

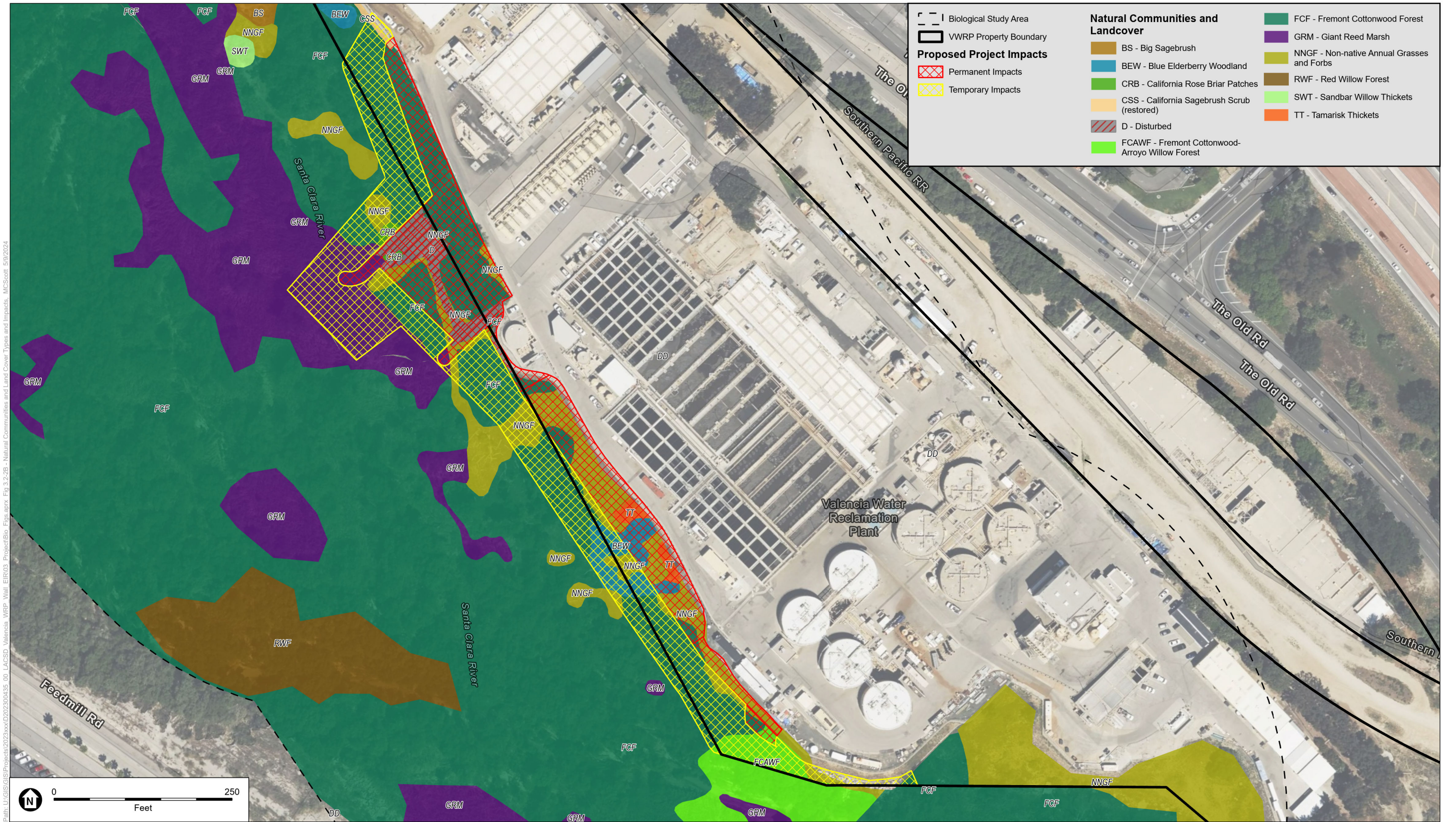
Giant reed marshes occur in large patches throughout the western half of the study area, interspersed throughout the Fremont cottonwood forest. This community is characterized by a large grass layer consisting almost exclusively of giant reed, interspersed with various tree species, including arroyo willow, Fremont cottonwood, mulefat, red willow, and sandbar willow (*S. exigua*).



SOURCE: ESA, 2024

VWRP Middle Section Retaining Wall Ground Improvement Project

Figure 3.2-2A
 Natural Communities and Land Cover Types



SOURCE: ESA, 2024

VWRP Middle Section Retaining Wall Ground Improvement Project

Figure 3.2-2B
 Natural Communities and Land Cover Types
 with Proposed Impacts

Non-Native Annual Grasses and Forbs

Non-native grasses and forbs were documented throughout the study area, adjacent to the VWRP. This community is characterized by a dense herbaceous layer consisting of various grasses and forbs including lamb's quarters (*Chenopodium album*), barley (*Hordeum murinum*), jimsonweed, horehound (*Marrubium vulgare*), ripgut brome, London rocket (*Sisymbrium irio*), and wild oats.

Red Willow Forest (*Salix laevigata* Forest)

Red willow forest was mapped in the western portion of the study area. This community is characterized by a tree layer dominated by red willow interspersed periodically with arroyo willow, Fremont cottonwood and mulefat.

Sandbar Willow Thickets (*Salix exigua* Thickets)

Sandbar willow thicket were mapped in a single small patch in the northern portion of the study area. This community is characterized by a tree layer dominated by sandbar willow interspersed periodically with arroyo willow, Fremont cottonwood, giant reed, mulefat, and red willow.

Tamarisk Thickets (*Tamarix ramosissima* Thickets)

Tamarisk thickets were mapped in two small patches in the southern portion of the study area, adjacent to the VWRP. This community is characterized by a tree layer consisting almost exclusively of tamarisk in the tree layer is entirely consisted of tamarisk (*Tamarisk ramosissima*).

Disturbed

Disturbed land was mapped adjacent to the existing wall in areas of recent disturbance. Vegetation in this area consists of sparse weedy cover similar in composition to the non-native annual grasses and forbs community, and includes ripgut brome, wild oats, London rocket, among others.

Developed

Developed land was mapped throughout much of the VWRP, along the Old Road and along Feedmill Road. It is found throughout the northeastern half of the study area. Vegetation in these areas are comprised of weedy and/or ornamental species, including horehound, lamb's quarter, European olive (*Olea europea*), Peruvian pepper (*Schinus molle*) and short-podded mustard.

Background

CDFW Conservation Easement

In accordance with conditions set forth in a CDFW Stream or Lake Alteration Agreement (SAA) Notification No. 5-644-91, dated August 6, 1992, The Santa Clarita Valley Sanitation District (SCVSD), formerly known as County Sanitation District No. 32 of Los Angeles County, agreed to place a Conservation Easement over the portion of their property between the VWRP and the Santa Clara River, which includes much of the study area (**Figure 3.2-3**). The Conservation Easement was intended to partially mitigate for impacts to CDFW jurisdiction that resulted from construction of the Valencia Water Reclamation Plant Stage Four Expansion Retaining Wall Project and protect existing fish and wildlife resources in perpetuity. The CDFW conservation easement was recorded on August 2, 1993.

VWRP Retaining Wall Extension Project

The SCVSD completed construction of the VWRP Retaining Wall Extension Project, situated northwest of the proposed project, in 2018. Project construction resulted in temporary and permanent impacts to biological resources. Permanent impacts associated with the VWRP Retaining Wall Extension Project were mitigated through the purchase of mitigation credits from a CDFW-approved mitigation bank, and temporary impacts were mitigated through revegetation (i.e., application of native hydroseed) and the planting of 12 cottonwood trees onsite. The revegetation and tree planting locations associated with the VWRP Retaining Wall Extension Project that overlap with the proposed project site are depicted in Figure 3.2-3.

California Department of Fish and Wildlife Sensitive Natural Communities and Habitats

CDFW has defined sensitive natural communities and habitats as those that have a reduced range and/or are endangered by human development (e.g. residential, agricultural, industrial), or the presence of invasive and other problematic species. NatureServe's Heritage Methodology evaluates vegetation communities based on their known range, distribution, and ecological integrity. This ranking occurs for both global (natural range within and outside of California [G]) and subnational (state level for California [S]) status ranks, each ranked from 1 ("critically imperiled" or very rare and threatened) to 5 (demonstrably secure). Natural communities and habitats ranked S1-S3 are considered sensitive natural communities and may require review during evaluation of environmental impacts. Communities marked NR have not been ranked by NatureServe (NatureServe 2024).

Five natural communities in the study area are considered sensitive communities by CDFW:

- Blue elderberry woodland (G4, S3)
- California rose briar patches (G3, S3)
- Fremont cottonwood forest (G4, S3)
- Fremont cottonwood-Arroyo willow forest (G4, S3)
- Red willow Forest (G4, S3)

Locations of these sensitive natural communities are depicted in **Figure 3.2-4**.

Significant Ecological Areas

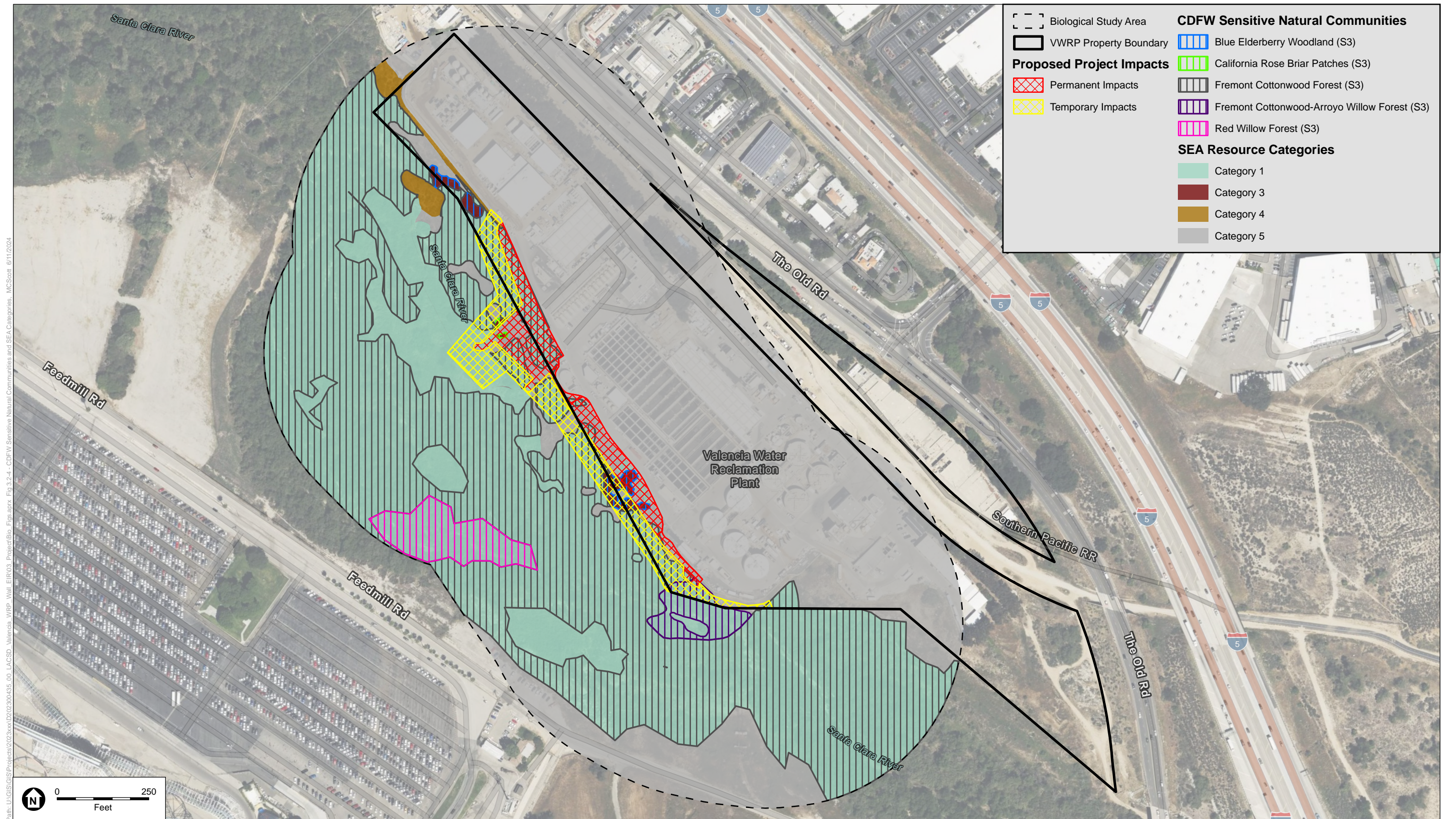
The proposed project falls within SEA 20: Santa Clara River. SEA resources are those biological and physical resources situated within unincorporated portions of Los Angeles County, that contribute to and are particularly important in supporting the biodiversity of the county. Five resource categories have been developed to characterize land use within SEAs, and are generally ranked based on rarity, sensitivity, and level of protection; these have been identified as SEA Resource Categories 1 through 5 (Los Angeles County 2020). The five SEA Resources Categories are each afforded protection consistent with its sensitivity to disturbance. Categories 1 through 3 are identified as Priority Biological Resources. The SEA Ordinance includes specific Development Standards for SEA Resource Categories 1 through 4, with the lower category number afforded with the highest protection standards. These resources are constraints to on-site development and are depicted in Figure 3.2-4, where applicable.



SOURCE: ESA, 2024

VWRP Middle Section Retaining Wall Ground Improvement Project

Figure 3.2-3
CDFW Conservation Easement and VWRP
Retaining Wall Extension Project Restoration Area



VWRP Middle Section Retaining Wall Ground Improvement Project

Figure 3.2-4
CDFW Sensitive Natural Communities
and SEA Resource Categories

SEA Resource Category 1

SEA Resource Category 1 includes natural communities recognized by the CDFW as sensitive, with a NatureServe rank of G1 or S1; plant species categorized by the CNPS as CRPR of 1, 2, or 3; plant and animal species formally or proposed for listing under CESA or FESA; and water resources typically regulated by CDFW, RWQCB or USACE (Los Angeles County 2020). Disturbance to resources in this category is generally prohibited.

The potential jurisdictional (i.e., CDFW, RWQCB, and USACE) boundaries identified along the Santa Clara River (i.e., bed, bank and riparian vegetation) meet the criteria for SEA Resource Category 1. This resource category occurs within the project site and biological study area.

SEA Resource Category 2

SEA Resource Category 2 includes natural communities recognized by the CDFW as sensitive, with a NatureServe rank of G2 or S2, rare or highly important to maintaining the biodiversity and ecosystem services within SEAs; or animals designated by the CDFW as a Species of Special Concern (Los Angeles County 2020). Only minimal amounts of disturbance are generally permitted to resources in this category.

Resources that meet SEA Resource Category 2 were not observed within the project site or biological study area.

SEA Resource Category 3

SEA Resource Category 3 includes natural communities recognized by the CDFW as sensitive, with a NatureServe rank of G3 or S3, native resources that are rare or significant within the County or specific SEAs, and oak woodlands as defined by the Los Angeles County Oak Woodland Conservation Management Plan (Los Angeles County 2020).

Impacts to SEA Resource Category 3 are separated into two tiers, development less than or equal to 500 square feet and development that exceeds 500 square feet. Development that does not exceed 500 square feet requires the preservation of in-kind habitat elsewhere onsite at a 1:1 ratio. Development that exceeds 500 square feet requires the preservation of in-kind habitat onsite, at a 2:1 ratio. All development must meet Development Standards outlined in the Implementation Guide (Los Angeles County 2020). The blue elderberry woodland and California rose briar patches meet the criteria for SEA Resource Category 3. This resource category occurs within the project site and biological study area.

SEA Resource Category 4

SEA Resource Category 4 includes more common natural communities with a NatureServe rank of G4, S4, G5, or S5, which are considered to be “apparently secure” or “secure” within their range. Plant species categorized by the CNPS as CRPR 4 also qualify as SEA Resource Category 4 (Los Angeles County 2020).

Impacts up to 5,000 square feet of resources in SEA Resource Category 4 are permitted without preservation; however, impacts that exceed 5,000 square feet will require onsite preservation and must meet Development Standards outlined in the Implementation Guide (Los Angeles County 2020). The big sagebrush and California sagebrush scrub (restored) meet the criteria for SEA Resource Category 4. This resource category occurs within the project site and biological study area.

SEA Resource Category 5

SEA Resource Category 5 includes disturbed, early successional, or isolated resource elements, such as plant communities dominated by non-native species, agricultural fields, hedges, non-native trees, etc., that continue to provide habitat and movement opportunities to wildlife (Los Angeles County 2020). Category 5 resources are not considered to be sensitive; therefore, a disturbance threshold or preservation ratio has not been identified for impacts to them. The non-native annual grasses and forbs and disturbed/developed land cover types meet the criteria for SEA Resource Category 5. This resource category occurs within the project site and biological study area.

Wildlife

Common Wildlife

Common avian species observed during the 2023 survey (See Appendix C) include the California scrub-jay (*Aphelocoma californica*), red-shouldered hawk (*Buteo lineatus*), wrenit (*Chamaea fasciata*), American crow (*Corvus brachyrhynchos*), common raven (*C. corax*), Nuttall's woodpecker (*Dryobates nuttallii*), brewer's blackbird (*Euphagus cyanocephalus*), common yellowthroat (*Geothlypis trichas*), house finch (*Haemorhous mexicanus*), song sparrow (*Melospiza melodia*), bushtit (*Psaltirparus minimus*), yellow-rumped warbler (*Setophaga coronata*), European starling (*Sturnus vulgaris*), California thrasher (*Toxostoma redivivum*), and white-crowned sparrow (*Zonotrichia leucophrys*).

One small mammal species, the desert cottontail (*Sylvilagus audubonii*); one amphibian species, the California tree frog (*Pseudacris cadaverina*); and one reptile species, the western fence lizard (*Sceloporus occidentalis*), were also observed.

Special-Status Wildlife

Special-status wildlife is defined as those animals that, because of their recognized rarity or vulnerability to various forms of habitat loss or population decline, are considered by federal, state, or other agencies to be under threat from human-associated developments. Special-status wildlife is defined as any of the following:

- Wildlife that are listed or proposed for listing as threatened or endangered, or are candidates for possible future listing as threatened or endangered, under the federal Endangered Species Act (FESA) or the California Endangered Species Act (CESA).
- Wildlife that meet the definitions of rare or endangered under California Environmental Quality Act (CEQA) Guidelines Section 15380.
- Wildlife designated by CDFW as species of special concern (SSC), included on the Watch List or considered "Special Animals."
- Wildlife fully protected in California (Fish and Game Code Sections 3511, 4700, and 5050).
- Birds designated as sensitive by the Los Angeles Audubon Society or are included in the Bird Watchlist (Allen L.W. et al. 2009).
- Bird species protected by the Migratory Bird Treaty Act (MBTA) and California Fish and Game Code.
- Bat species considered priority by the Western Bat Working Group (WBWG 2024).

A review of the most recent CNDDDB (CDFW 2024a) records for the project site revealed that numerous special-status wildlife species have previously been recorded within the USGS nine-quadrangle search area; a complete list of the species generated in the CNDDDB query are provided in Appendix C, *Resource Database Search Results*. Wildlife species generated in the query that are not expected to occur within the study area (based on an absence of suitable habitat, known geographic distributions, and/or range restrictions) were omitted and are not discussed further in this report. The remaining special-status wildlife were determined to have varying levels of potential to occur based on the following criteria (see Appendix C, *Special-Status Wildlife Species – Potential to Occur*):

- **Low Potential:** The study area supports little to no habitat for a particular species.
- **Moderate Potential:** The study area provides marginal habitat for a particular species. For example, the habitat may be heavily disturbed or just outside the known geographical or elevation range; however, it still provides suitable foraging and breeding habitat.
- **High Potential:** The study area provides suitable habitat conditions for a particular species and/or known populations to occur in the immediate area.
- **Present:** The species was observed within the study area during the site visit.

Based on the presence of suitable habitat within and adjacent to the Santa Clara River, 22 species have a moderate to high potential to occur within the study area, including Cooper's hawk (*Accipiter cooperii*), southwestern pond turtle (*Actinemys pallida*), San Diegan legless lizard (*Anniella stebbinsi*), coastal whiptail (*Aspidoscelis tigris* ssp. *stejnegeri*), Crotch's bumble bee (*Bombus crotchii*), Santa Ana Sucker (*Catostomus santaanae*), yellow-billed cuckoo (*Coccyzus americanus*), Townsend's big-eared bat (*Corynorhinus townsendii*), southwestern willow flycatcher (*Empidonax traillii* ssp. *extimus*), , Unarmored threespine stickleback (*Gasterosteus aculeatus* ssp. *williamsoni*), arroyo chub (*Gila orcuttii*), yellow-breasted chat (*Icteria virens*), silver-haired bat (*Lasionycteris noctivagans*), western red bat (*Lasiurus blossevillei*), California towhee (*Melospiza crissalis*), belted kingfisher (*Megascops alcyon*), coast horned lizard (*Phrynosoma blainvillii*), mountain lion (*Puma concolor*), yellow warbler (*Setophaga petechia*), American badger (*Taxidea taxus*), two-striped garter snake (*Thamnophis hammondi*), and least Bell's vireo (*Vireo bellii* ssp. *pusillus*). The CNDDDB occurrence data for special-status wildlife species within the vicinity of the study area can be found in **Figure 3.2-5**.

Two Los Angeles Audubon Society species, the oak titmouse (*Baeolophus inornatus*), and the ruby-crowned kinglet (*Regulus calendula*) were observed foraging within the study area during the site visit. Due to the presence of suitable breeding habitat, the oak titmouse is expected to utilize the study area to breed. However, the ruby-crowned kinglet is not known to breed along the coast of Southern California and is not expected to breed within the study area.

Special-Status Plants

Special-status plants are defined as those plants that, because of their recognized rarity or vulnerability to various causes of habitat loss or population decline, are recognized by federal, state, or other agencies as under threat from human-associated developments. Special-status plants are defined as any of the following:

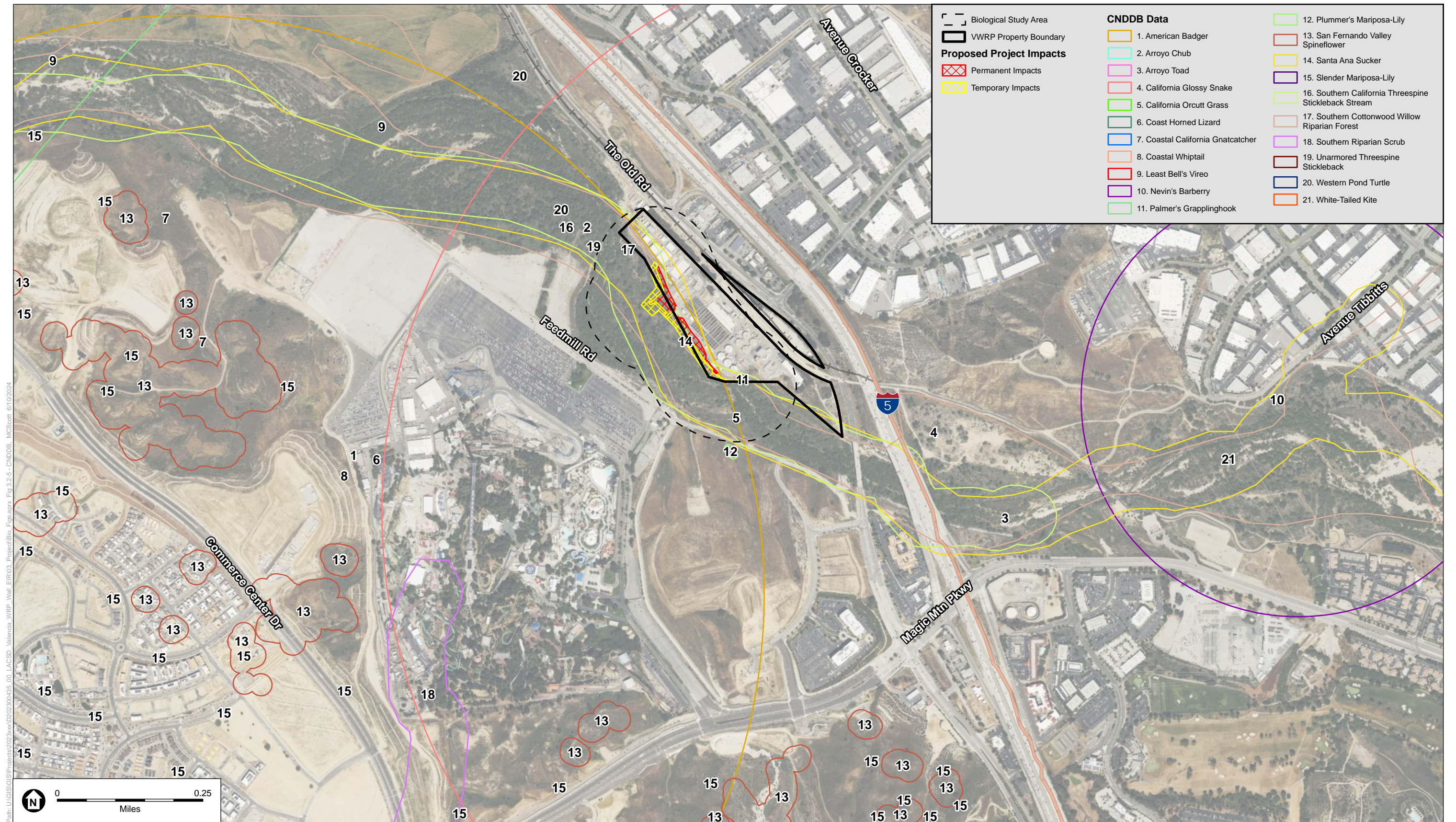
- Plants that are listed or proposed for listing as threatened, endangered or rare or are candidates for possible future listing as threatened, endangered, or rare under FESA or CESA.
- Plants that meet the definitions of rare or endangered under State CEQA Guidelines Section 15380.

- Plants considered by the CNPS to be rare, threatened, or endangered (California Rare Plant Rank (CRPR) 1A, 1B, 2A, and 2B plants) in California.
- Plants listed by the CNPS as plants for which more information is needed to determine their status and plants of limited distribution (CRPR 3 and 4 plants).
- Plants listed as rare under the California Native Plant Protection Act (Fish and Game Code 1900 et seq.).

A review of the CNDDDB (CDFW 2024a) and the CNPS Inventory of Rare and Endangered Plants (CNPS 2024) revealed numerous special-status plant species recorded within the USGS nine-quadrangle search. The potential for special-status plant species to occur is based on vegetation, habitat quality, topography, elevation, soils, surrounding land uses, habitat preferences, and geographic ranges. Based on the presence of suitable habitat, known geographic distributions, and/or range restrictions, it was determined that many of the plant species do not have the potential to occur within the project site, and those species are therefore omitted from further discussion in this report. The remaining special-status plants were determined to have varying levels of potential to occur based on the following criteria (see Appendix C, *Special-Status Plant Species – Potential to Occur*):

- **Not Expected:** The species was either not observed during an appropriately timed focused survey and/or was not observed at a time when it would have been identifiable outside of the blooming period (i.e., fruiting or in a vegetative state).
- **Low Potential:** The project site supports little to no habitat for a particular species.
- **Moderate Potential:** The survey area provides marginal habitat for a particular species. For example, the habitat may be heavily disturbed or fragmented/isolated or the survey area may be located just outside the known geographical or elevation range; however, it still provides suitable foraging and breeding habitat.
- **High Potential:** The survey area provides suitable habitat conditions for a particular species and/or known populations occur in the immediate area.
- **Present:** The species was observed within the survey area during the site visit.

A total of 9 special-status plant species have a moderate and/or high potential to occur within the study area, including Catalina mariposa lily (*Calochortus catalinae*), slender mariposa lily (*C. clavatus* ssp. *gracilis*), Plummer's mariposa lily (*C. plummerae*), Peirson's morning glory (*Calystegia peirsonii*), Palmer's grappling hook (*Harpagonella palmeri*), southern California black walnut (*Juglans californica*), Hubby's phacelia (*Phacelia hubbyi*), Nuttall's scrub oak (*Quercus dumosa*) and chaparral ragwort (*Senecio aphanactis*). These species were not observed during the initial focused rare plant survey in 2022; however, there is a possibility that these species may have since established within the biological study area.



SOURCE: ESA, 2024

WVRP Middle Section Retaining Wall Ground Improvement Project

Figure 3.2-5
CNDDDB Occurrences

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Protected Trees

Los Angeles County Protected Oak Trees

Pursuant to Sections 22.174.010–22.174.110 of the Los Angeles County Zoning Code, “a person shall not cut, destroy, remove, relocate, inflict damage or encroach into a protected zone of any tree of the oak genus which is (a) 25 inches or more in circumference (eight inches in diameter) as measured four and one-half feet above mean natural grade, on any lot or parcel of land within the unincorporated area of Los Angeles County, or (b) any tree that has been provided as a replacement tree, pursuant to Section 22.174.070, on any lot or parcel of land within the unincorporated area of Los Angeles County, unless an oak tree permit is first obtained....”. Oak trees were not incidentally observed within and/or adjacent to the project site.

Significant Ecological Area Protected Trees

Pursuant to the Significant Ecological Area (SEA) Ordinance, all new development shall be sited and designed to preserve native trees included in the SEA Protected Tree List that are of a particular size (Los Angeles County 2020). The proposed project would be located within SEA 20: Santa Clara River. Numerous Fremont cottonwood trees and blue elderberry trees were detected incidentally within the study area during the survey. These and other trees that likely meet the criteria for SEA protected trees were identified within and immediately adjacent to the project site.

Critical Habitat

Under FESA, the USFWS and National Marine Fisheries Service are required to designate critical habitat for endangered and threatened species to the extent possible. These critical habitats designate areas that are suitable habitat that are critical for the continued survival and recovery of endangered and threatened species. This protects the physical and biological resources that these species utilize: include areas for breeding, movement/migration, feeding, roosting, cover and shelter. Thus, critical habitat requires special management and protection of resources, water quality, host animals and plants, and so forth.

USFWS-designated critical habitat for arroyo toad, least Bell’s vireo, and southwestern willow flycatcher extends into the project site and study area (**Figure 3.2-6**).

Arroyo Toad Critical Habitat

The study area is situated within subunit #6b, San Francisquito Creek to Castaic Creek, of the Upper Santa Clara River Basin Management Unit (MU #6). This management unit was designated for natural population expansion and fluctuation and contains biological features that are essential to the conservation of the species. It was identified for supporting primary constituent elements (PCEs) 1 and 2: potential breeding pools in low gradient stream segments with sandy substrates, PCE 3: seasonal flood flows, and PCE 4: riparian habitat and upland benches that may be utilized for foraging and dispersal (Federal Register 2011).

Least Bell’s Vireo Critical Habitat

The Santa Clara River was designated as critical habitat because it possesses the PCEs necessary to support the species’ life stages, including:

- Space for individual and population growth, and for normal behavior
- Food, water, or other nutritional or physiological requirements; cover or shelter

- Sites for breeding, reproduction, rearing of offspring
- Habitats that are protected from disturbance or are representative of the historic geographical and ecological distribution of a species (Federal Register 1994).

Southwestern Willow Flycatcher Critical Habitat

The study area is situated within the Santa Clara River Management Unit (MU #2) for the southwestern willow flycatcher. No large nesting populations had been documented within the management unit at the time of establishing critical habitat for the species, with the number of territories historically remaining small; 1995-2001, between 0 and 7 territories were documented annually. However, the 46.7-mile segment of the Santa Clara River was designated for management and recovery because it is within the geographical area that was known to be occupied by the species at the time of listing and supported the physical or biological features essential to its conservation (Federal Register 2013).

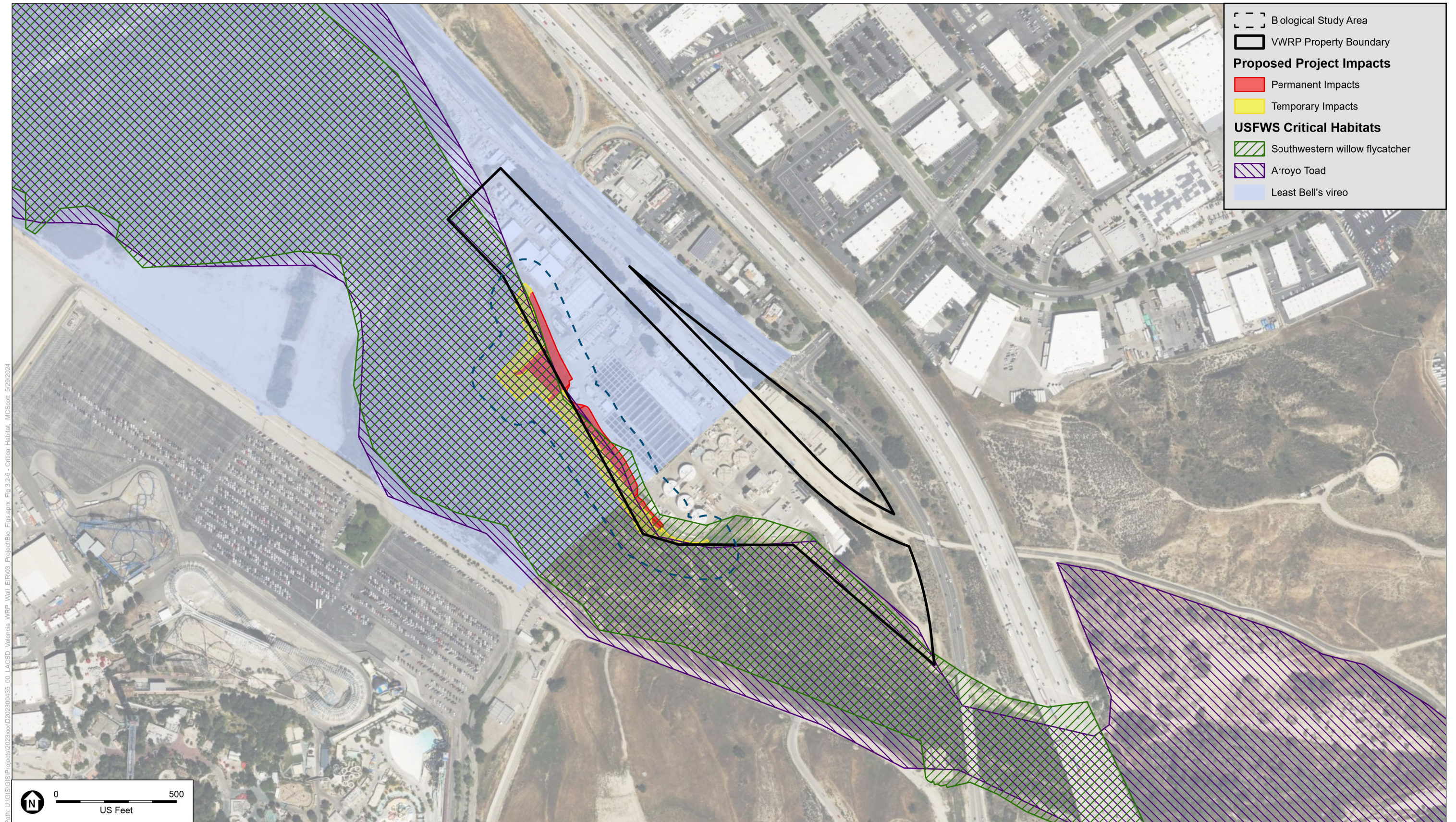
Aquatic Resources

A formal aquatic resources delineation was performed within the aquatic resources study area on December 19, 2023. Two features were documented within the aquatic resources study area, Drainage 1 – Outfall and Drainage 2 – Santa Clara River. Drainage 1 – Outfall is a feature that was generated by the release of disinfected tertiary treated effluent from the VWRP and conveys flows into the Santa Clara River from an underground pipe situated within the northwest portion of the aquatic resources study area. Drainage 2 – Santa Clara River is the Santa Clara River itself; it is situated within the southwest portion of the aquatic resources study area.

The results of the delineation presume that 0.001-acre of potential wetland waters and 0.49-acre (666.52 linear feet [LF]) of potential other (non-wetland) waters of the U.S. and State; and 6.83 acres of stream and associated riparian habitat potentially protected under Section 1600 et seq. of the California Fish and Game Code, occur within the aquatic resources survey area (**Figure 3.2-7**). The results of the aquatic resources delineation survey are presented in Appendix C, *Aquatic Resources Delineation*.

Wildlife Movement and Habitat Linkages

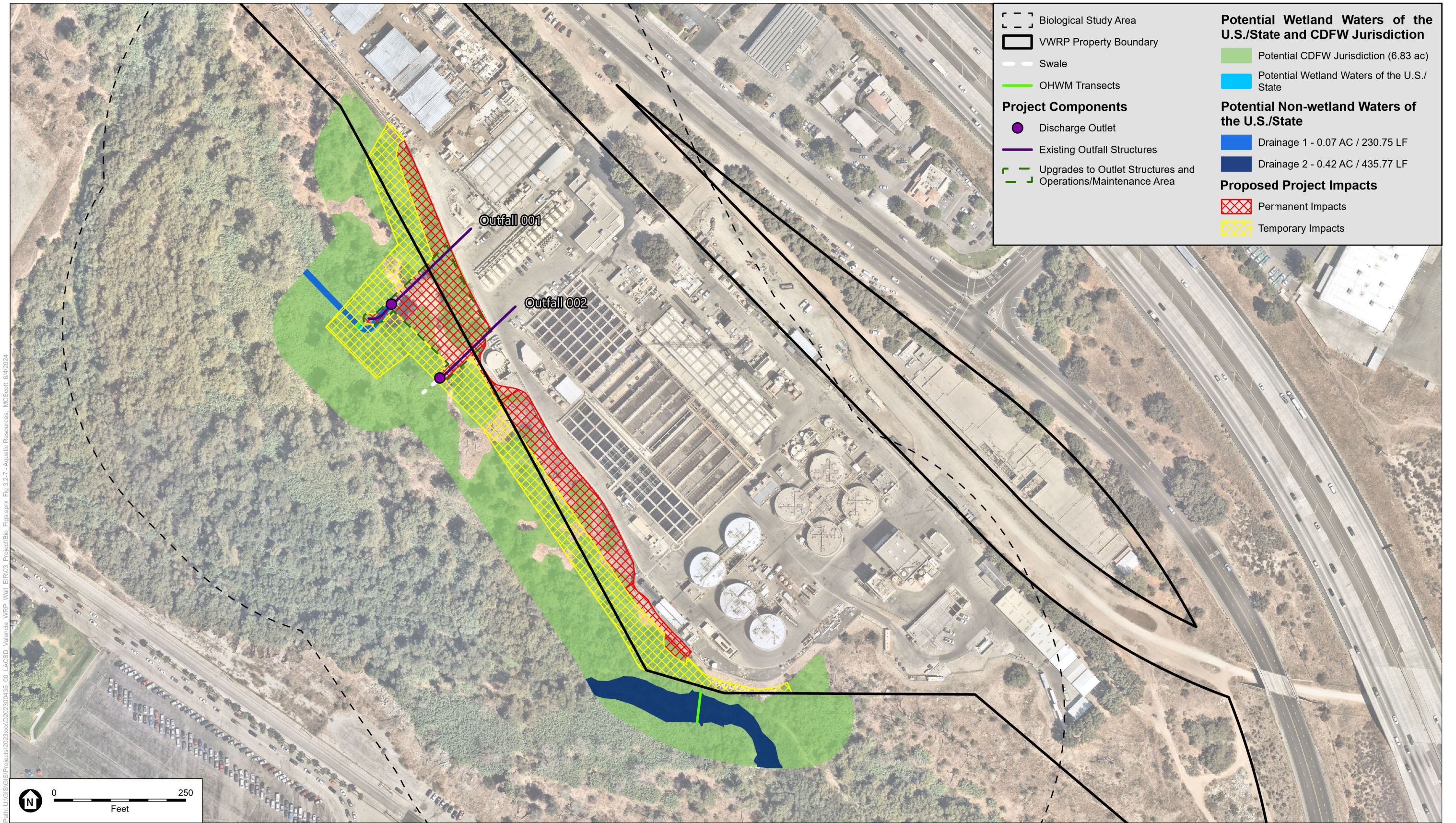
The segment of the Santa Clara River where the study area is situated has not been formally designated as a wildlife corridor or linkage. However, the Santa Clara River Watershed provides a critical pathway for wildlife when travelling between the Coast Ranges to the north and the Transverse Ranges to the south and east, as well as providing downstream connectivity to the Pacific Ocean. The various bird, mammal, reptile, and fish species that forage and breed along the Santa Clara River within the study area and beyond, are also expected to depend heavily on it for local and regional movement. **Figure 3.2-8** depicts the location of known wildlife corridors identified by the South Coast Missing Linkages project, downstream of the biological study area, and surrounding the Santa Clarita Valley (South Coast Wildlands 2008). Furthermore, the Santa Clara River underpasses the I-5 and Old Road bridges near the project site, providing a natural crossing of these two linear wildlife barriers.



SOURCE: ESA, 2024; USFWS, 2024

VWRP Middle Section Retaining Wall Ground Improvement Project

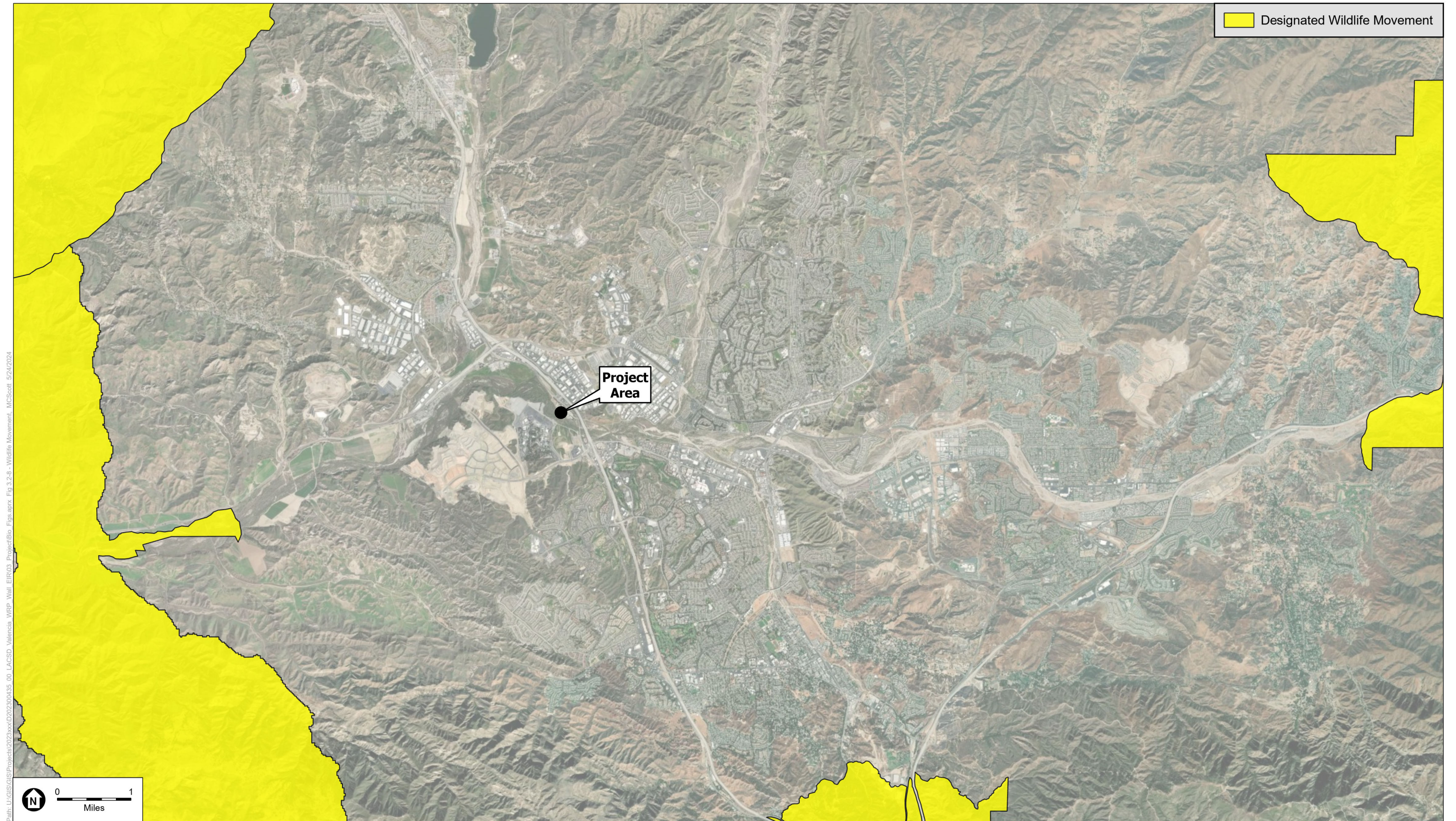
Figure 3.2-6
USFWS Critical Habitat



SOURCE: ESA, 2024

VWRP Middle Section Retaining Wall Ground Improvement Project

Figure 3.2-7
Aquatic Resources



SOURCE: ESA, 2024

VWRP Middle Section Retaining Wall Ground Improvement Project

Figure 3.2-8
Designated Wildlife Movement

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3.2.2 Regulatory Framework

Federal

Federal Endangered Species Act

FESA provides framework for conserving federally listed species and their associated ecosystems. Section 9 of FESA prohibits “take” of federally listed endangered or threatened species and the destruction of their habitat, unless authorized by federal regulations (e.g. incidental take permit). Section 9 also has additional protective measures to prevent impacts to endangered and threatened plant species.

Migratory Bird Treaty Act

The MBTA prohibits the take of native birds: which includes pursuing, hunting, wounding, trapping, capturing or killing migratory birds, unless permitted by USFWS regulations. This also protects any nests and eggs—in addition to the birds themselves. Migratory birds include all native birds in the United States, except non-migratory game species (e.g. quail, turkey): which are managed by individual states.

Clean Water Act

In accordance with Section 404 of the Clean Water Act (CWA), the USACE regulates discharge of dredged or fill material into “waters of the United States”. “Waters of the United States” and their lateral limits are defined in 33 CFR 328.3(a) and include navigable waters of the United States, interstate waters, all other waters where the use or degradation or destruction of the waters could affect interstate or foreign commerce, tributaries to any of these waters, and wetlands that meet any of these criteria or that are adjacent to any of these waters or their tributaries. Waters of the United States are often categorized as “jurisdictional wetlands” (i.e., wetlands over which the USACE exercises jurisdiction under Section 404) and “other waters of the United States” when habitat values and characteristics are being described. “Fill” is defined as any material that replaces any portion of a water of the United States with dry land or that changes the bottom elevation of any portion of a water of the United States. Any activity resulting in the placement of dredged or fill material within waters of the United States requires a permit from USACE. In accordance with Section 401 of the CWA, projects that apply for a Section 404 permit for discharge of dredged or fill material must obtain water quality certification from the appropriate RWQCB indicating that the proposed project would uphold State of California water quality standards.

The 2023 Supreme Court ruling in *Sackett v. Environmental Protection Agency* sharply limited the scope of the federal CWA’s protection for the “waters of the U.S.” As a result, EPA and USACE issued a final rule that amends the “Revised Definition of ‘Waters of the United States’” to conform key aspects of the regulatory text to the U.S. Supreme Court’s decision (88 *Federal Register* 61964–61969, September 8, 2023).

State

State Endangered Species Act

CESA prevents state agencies from approving projects that jeopardize a species’ presence if there are reasonable alternatives that would avoid the impact to the species. CESA also prohibits the take of any fish, wildlife, or plant species that is considered endangered, threatened, or a candidate species that is under listing consideration by CESA. Similar to FESA, an incidental take permit may authorize take of a listed or candidate species—if approved by CDFW.

Native Plant Protection Act

The Native Plant Protection Act aims to protect, preserve, and enhance rare and endangered native plants. These species include those listed as rare and endangered under CESA. The Native Plant Protection Act prohibits the importation, take, possession or selling of protected species. Landowners are mandated to notify CDFW at least 10 days prior to land use changes to allow CDFW to salvage protected plant species.

Section 15380 of California Environmental Quality Act Guidelines

CEQA Guidelines Section 15380(b) states that species that are not listed under FESA or CESA may be considered rare or endangered if they meet specific criteria, based on definitions outlined in FESA and California Fish and Game Code. This section allows public agencies to review potential impacts to candidate species federal and state listing consideration. Section 15380(b) also encourages the protection of locally or regionally significant resources such as natural communities, which lack legal protections. An assessment is required to determine potential significant impacts to natural communities. Natural communities listed as sensitive in CNDDDB are considered significant resources by CDFW and thus fall under CEQA Guidelines to address impacts made to these ecosystems.

Sections 3503 and 3513 of California Fish and Game Code

Section 3503 of California Fish and Game Code prohibits the killing of birds and the destruction of the bird nests. Section 3503.5 of California Fish and Game Code protects birds of prey: prohibiting the take, possession or destruction of birds, including their nests and eggs.

Section 3513 of California Fish and Game Code prohibits the take or possession of migratory nongame birds as described in MBTA, unless federal regulations allow.

Section 1602 of California Fish and Game Code

Section 1602 of the California Fish and Game Code requires a streambed alteration agreement (SAA) for any project that alters the bed and/or bank of a lake, stream, river or channel. This includes the excavation or fill placement within a channel, vegetation clearing, installation of culverts, bank reinforcement and other activities. CDFW requires that documentation is provided for any trees removed. Trees that have a trunk diameter at breast height (DBH) greater than 2 inches are regulated by CDFW through the SAA.

Regional

County of Los Angeles Oak Tree Protection Ordinance

Oak trees (*Quercus* sp.) are protected under the County Oak Tree Ordinance, Sections 22.174.010-22.174.110, of Los Angeles County Municipal Code. The Ordinance prohibits the cutting, destruction, removal, damaging or encroachment into protected zones of any oak tree with “(a) 25 inches or more in circumference (8 inches in diameter) as measured four and one-half feet above mean natural grade, on any lot or parcel of land within the unincorporated area of Los Angeles County, or (b) any tree that has been provided as a replacement tree, pursuant to Section 22.174.070, on any lot or parcel of land within the unincorporated area of Los Angeles County, unless an oak tree permit is first obtained” (Section 22.174.030).

Local

SEA Program (Los Angeles County Code Section 22.14.190 and Chapter 22.102; Ordinance 2019-0072)

On December 17, 2019, the County amended Section 22.14.190 and Chapter 22.102 through the implementation of Ordinance 2019-0072, to update regulations for SEAs and associated provisions. The definition of SEA was amended to read: “Land that is identified to hold important biological resources representing the wide-ranging biodiversity of the County, based on the criteria for SEA designation established by the General Plan and as mapped in the adopted SEA Policy Map.”

In addition to changing the definition of SEA, as described above, various other changes were made regarding how SEAs are managed and how impacts to them are regulated. These include the refinement of existing guidelines used to determine which projects may be exempt from the ordinance, changes to the procedures for Counseling and Ministerial Review, and changes to the process for the acquisition of Protected Tree Permits and SEA CUPs.

3.2.3 Impact Analysis and Mitigation Measures

Thresholds of Significance

CEQA Guidelines Appendix G, Environmental Checklist Form, includes questions pertaining to biological resources. The issues presented in the Environmental Checklist have been used as thresholds of significance in this section. Accordingly, the proposed project would have a significant adverse environmental impact if it would:

- Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service (Refer to Impact 3.2-1)
- Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service (Refer to Impact 3.2-2)
- 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 (Refer to Impact 3.2-3)
- 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 (Refer to Impact 3.2-4)
- Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance (Refer to Impact 3.2-5)
- Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan (Refer to Impact 3.2-6)
- Result in cumulatively considerable impacts to biological resources (Refer to Impact 3.2-7)

Methodology

This section describes the potential effects of the proposed project on biological resources that may occur because of project implementation. Direct, indirect, temporary, and/or permanent effects to biological resources may occur as a result of project implementation, as defined below:

- **Direct Impacts:** Any alteration, disturbance, or destruction of biological resources that would result from project-related activities is considered a direct effect. Examples include loss of individual species and/or their associated plant communities, diversion of surface water flows, and encroachment into wetlands. Direct effects are defined as the immediate effects of a project on a species or its habitat, including construction noise disturbance, sedimentation, or habitat loss.
- **Indirect Impacts:** Biological resources may also be affected in an indirect manner as a result of project-related activities. An example of indirect impacts may include irrigation runoff from a developed area into surrounding natural vegetation. Indirect effects could also include increased wildfire frequency as a result of power line failures.
- **Temporary Impacts:** Any effects on biological resources that are considered reversible can be viewed as temporary. Examples include the generation of fugitive dust during construction activities.
- **Permanent Impacts:** All impacts that result in the irreversible removal of biological resources are considered permanent. Examples include constructing a building or permanent road on an area with native vegetation, such that the native vegetation is permanently removed and replaced with a developed structure.

Operation of the proposed project would not change from existing conditions; therefore, no impact to biological resources would occur. Operations is not discussed further in this section.

Impact Analysis

Species Impacts

Impact 3.2-1: The proposed project could have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service.

Plants

The focused rare plant survey conducted in 2022 (Appendix C, *Biological Constraints Analysis*) resulted in negative findings; however, 14 species were determined to have a moderate to high potential to occur. If present, the proposed construction may result in the direct loss of rare plants; however, implementation of Mitigation Measure **BIO-1** requiring rare plant surveys be conducted prior to construction and implementation of avoidance and minimization measures outlined in Mitigation Measure **BIO-2**, would ensure that impacts to rare plants are reduced to less than significant.

Birds

Non-Listed Birds and Raptors

Suitable habitat for various birds/raptors and non-listed special-status birds, including the belted kingfisher, California towhee, Cooper's hawk, oak titmouse, yellow-breasted chat and yellow warbler, is present within the study area. Birds/raptors may forage and breed in the various natural communities (e.g., blue elderberry woodland, Fremont cottonwood forest, non-native grasses and forbs and red willow

forest) that occur within 500 feet of the project site and the proposed construction may disrupt nesting through the direct removal of an active nest or by causing nest failure because of construction noise and spillage of nighttime lighting into adjacent habitat. It should be noted, however, that nighttime construction would only occur on four nights, when connecting and disconnecting the bypass for the outfall structures and is otherwise not expected to take place during project construction. Implementation of Mitigation Measure **BIO-3** would require pre-construction nesting bird surveys and delineation of nest avoidance buffers. If nesting birds are identified, implementation of BIO-3 would require that a monitor be present to determine if on-going construction activities resulted in disturbance to nesting behavior. The avian monitor would have the power to stop construction until it was determined that either the nestlings had fledged, or construction activities were not disruptive. Implementation of **BIO-4** would minimize nighttime construction lighting impacts to nearby habitat areas. With implementation of these mitigation measures impacts to birds and raptors would be reduced to a less than significant level.

Listed Birds

Least Bell's Vireo

Suitable habitat for the least Bell's vireo is present within the study area and this species may forage and breed within 500 feet of the project site. The proposed construction may result in an impact to nesting through the direct removal of an active nest or the failure of a nest because of construction noise. Construction may also result in approximately 0.55 acre permanent and 1.21 acres of temporary impacts to suitable riparian habitat (i.e., Fremont cottonwood-arroyo willow forest, Fremont cottonwood forest, red willow forest, sandbar willow forest) (see Table 3.2-1). The disruption of nesting activities and/or the removal of occupied habitat could result in a significant impact to this species; however, implementation of Mitigation Measure **BIO-5** would require focused surveys to determine presence/absence of the species and Mitigation Measures BIO-2 through BIO-4 would help reduce potential construction impacts through implementation of minimization and avoidance measures, delineation of avoidance buffers, and nighttime lighting restrictions if least Bell's vireo is detected within 500 feet of the project site during focused surveys. In addition, if the proposed construction would result in an impact to occupied habitat Mitigation Measure **BIO-6** would be implemented to ensure that the habitat replacement values are achieved. Therefore, implementation of Mitigation Measures BIO-2 through BIO-6 would ensure impacts to least Bell's vireo are reduced to less than significant.

Southwestern Willow Flycatcher and Yellow-billed Cuckoo

Suitable habitat for the southwestern willow flycatcher and yellow-billed cuckoo is present within the study area and these species may forage and breed within 500 feet of the project site. The proposed construction may result in an impact to nesting through the direct removal of an active nest or the failure of a nest because of construction noise. Construction may also result in a 0.63 acre permanent and 1.53 acres of temporary impacts of suitable riparian habitat (i.e., Fremont cottonwood-arroyo willow forest, Fremont cottonwood forest, giant reed marshes, red willow forest, sandbar willow forest and tamarisk thickets) (see Table 3.2-1). The disruption of nesting activities and/or the removal of occupied habitat could result in a significant impact to one or both of these species; however, implementation of Mitigation Measure BIO-5 would require focused surveys to determine presence/absence of the species and Mitigation Measures BIO-2 through BIO-4 would help reduce potential construction impacts through implementation of minimization and avoidance measures, delineation of avoidance buffers, and nighttime construction lighting restrictions if southwestern willow flycatcher and/or yellow-billed cuckoo is detected within 500 feet of the project site during focused surveys. In addition, if the proposed

construction would result in an impact to occupied habitat, Mitigation Measure BIO-6 would be implemented to ensure that the habitat replacement values are achieved. Therefore, implementation of Mitigation Measures BIO-2 through BIO-6 would ensure impacts to southwestern willow flycatcher and/or yellow-billed cuckoo are reduced to less than significant.

Mammals

Non-Listed, Special-Status Mammals

Silver-haired bat, Townsend's big-eared bat, western red bat, and American badger may forage, roost/breed and or migrate through habitats present within the study area, and the proposed project may result in a direct impact to these species through the mortality of individuals, removal of an active nest/roost and/or the failure of a nest/roost because of construction noise. Disruption of these activities may result in a significant impact to these species. Mitigation Measure **BIO-7** would restrict construction to outside of the roosting season, if feasible, or require preconstruction surveys to determine presence/absence and to monitor roosts and/or prepare a Bat Exclusion Plan, if needed. Mitigation Measure **BIO-8** would require pre-construction clearance surveys for the American badger, species relocation, and avoidance of active dens until young have matured enough for relocation. In addition, Mitigation Measures BIO-2 and BIO-4 would help reduce potential construction impacts through implementation of minimization and avoidance measures, and nighttime construction noise and lighting restrictions if active dens are detected within 500 feet of the project site during preconstruction surveys. Therefore, with implementation of Mitigation Measures BIO-2, BIO-4, BIO-7, and BIO-8, impacts would be considered less than significant.

Listed Mammals

Mountain Lion

Mountain lions are expected to utilize the Santa Clara River and its associated riparian and upland habitat as a source of food and for movement between the Transverse Ranges to the south and east, the Coast Ranges to the north and downstream to the Pacific Ocean. The proposed project would result in four days of nighttime construction for the connection and disconnection of a bypass structure for the outfall structure. The mountain lion is most likely to utilize the study area between dusk and dawn; therefore, nighttime construction could result in a direct, temporary disruption of foraging, and movement of this species. However, with the implementation of Mitigation Measure BIO-4, impacts to mountain lion would be minimized and reduced to a less than significant level.

Fish

Flowing water within the Santa Clara River (when present) provides suitable habitat for the Arroyo chub, Santa Ana sucker, and unarmored threespine stickleback. All three species have been documented within the Santa Clara River as recently as 2007 for the Santa Ana sucker and unarmored threespine stickleback, and 2011 for the Arroyo chub (CDFW 2024a). The proposed project would include upgrades to Discharge Outfalls 001 and 002, resulting in disturbance to the immediate vicinity, as depicted in Figure 3.2-7.

However, the proposed project would install a bypass structure during upgrades to Outfall 001 in order ensure that flow is not disrupted during construction activities. Outflow from the VWRP would be re-routed immediately downstream (~50 feet) of Outfall 001, and flow along Drainage 1-Outfall 001 to the Santa Clara River would remain the same. Additionally, conditions immediately downstream of Outfall 001 are not consistent with natural conditions found along the Santa Clara River and do not provide suitable habitat for special-status fish (i.e., increased flow velocity). The proposed addition of riprap along the southern portion of the proposed project area would not encroach into the flowing channel of the

Santa Clara River and thus would not remove suitable fish habitat; however, all three fish species have the potential to occur in this area, within close proximity to the project site. The installation of riprap could result in indirect water quality impacts to special-status fish. Application of standard water quality best management practices, such as the installation of erosion control measures (e.g., silt fencing and straw wattles) and secondary containment, and parking/fueling of equipment at least 100 feet from flowing water would avoid and minimize these potential water quality impacts to a less-than-significant level.

Herpetofauna

Non-Listed Herpetofauna

Coastal whiptail, coast horned lizard, San Diegan legless lizard and two-striped garter snake may forage and/or breed within the study area, and proposed construction may result in the direct mortality of individuals or disruption of breeding or foraging behavior. Disruption of these activities could result in a significant impact to these species. However, Mitigation Measure BIO-8 would require pre-construction surveys, species relocation, and avoidance of active nests until eggs have hatched or young have matured enough for relocation. In addition, Mitigation Measures BIO-2 and BIO-4 would help reduce potential construction impacts through implementation of minimization and avoidance measures, and nighttime lighting restrictions if active nests are detected within 500 feet of the project site during preconstruction surveys. Therefore, with implementation of Mitigation Measures BIO-2, BIO-4, and BIO-8, impacts would be reduced to a less than significant level.

Proposed Listed Herpetofauna

Southwestern Pond Turtle

The southwestern pond turtle may forage and breed within the various natural communities (e.g., Fremont cottonwood forest, giant reed marsh, red willow forest) that occur within 500 feet of the project site and may be impacted by the project. Proposed project construction may result in the direct mortality of individuals, removal of an active nest and/or the failure of a nest because of construction noise. Disruption of these activities may result in a significant impact to this species; however, with the implementation of Mitigation Measure **BIO-9** would require focused surveys to detect the presence/absence of the species and restrict construction to outside the breeding season, if feasible, otherwise avoid active nests or individuals. In addition, Mitigation Measure BIO-2 and BIO-4 would require implementation of avoidance and minimization measures, and nighttime construction noise and lighting restrictions. If the proposed construction would result in an impact to occupied habitat, Mitigation Measure BIO-6 would be implemented to ensure that the habitat replacement values are achieved. Therefore, with implementation of Mitigation Measures BIO-2, BIO-4, BIO-6, and BIO-9 impacts would be considered less than significant.

Insects

Crotch's bumble bee may forage and breed within in the various natural communities (e.g., Fremont cottonwood forest, blue elderberry woodland, California rose briars, and non-native grasses and forbs) that occur within 500 feet of the project site and the proposed construction may disrupt nesting through the direct removal of an active nest or by causing nest failure because of construction noise and spillage of nighttime lighting into adjacent habitat. However, with the implementation of Mitigation Measure **BIO-10** requiring preconstruction surveys within suitable habitat, establishing avoidance buffers, and conducting potential relocation efforts, and Mitigation Measure BIO-2 and BIO-4 requiring implementation of avoidance and minimization measures, and nighttime lighting restrictions impacts would be considered less than significant.

Mitigation Measures

BIO-1: Rare Plants. Preconstruction special-status plant surveys within areas containing suitable habitat throughout the project site during the appropriate blooming periods for Catalina mariposa lily, chaparral ragwort, Hubby's phacelia, Nuttall's scrub oak, Palmer's grappling hook, Peirson's morning glory, Plummer's mariposa lily, slender mariposa lily and southern California black walnut. Throughout the project site. Plant surveys shall be conducted in accordance with CDFW's *Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Sensitive Natural Communities* (CDFW March 20, 2018). If special-status plants are found to be present within or near the project impact area, a suitable area around the plants (as determined by a qualified biologist) shall be avoided and demarcated with orange-mesh construction fencing to impacts to special-status plant species.

If restoration, translocation and/or seed collection is used to mitigate impacts to special-status plants, a restoration/translocation plan shall be developed for CDFW approval prior to any disturbance to special-status plants and shall include, but shall not be limited to, the following information: identification of documented populations of the specie(s) within the project site, estimated impacts to the population on-site, proposed restoration methods (e.g., translocation, seed collection, etc.), expected timeline, success criteria, performance standards, funding source(s) and responsible parties, maintenance methods and schedule, irrigation methods and schedule, adaptive management strategies, and a minimum 5-year monitoring and reporting program.

BIO-2: General Minimization and Avoidance Measures. The following measures shall be implemented to avoid and minimize impacts to sensitive wildlife during construction activities.

- Prior to commencement of the project, a Workers Environmental Awareness Program (WEAP) shall be prepared and presented to construction crews. The WEAP shall provide an overview of all sensitive resources that occur or may occur within the study area, and the appropriate steps that shall be taken, shall such resources be observed during construction activities. The WEAP shall concentrate on the proper identification of sensitive resources while in the field, suggested strategies in avoiding impact to such resources, and the proper reporting methods for field crews in the event that such resources are observed during construction activities.
- SCVSD construction personnel shall cover all excavations at the end of each workday to prevent the entrapment of wildlife. Alternatively, a ramp no greater than 2:1 slope shall be constructed in each excavation to allow trapped wildlife to escape. Prior to the commencement of construction each day, SCVSD construction personnel shall check excavations each morning to ensure that wildlife has not become trapped in any excavation overnight.
- Prior to the commencement of construction activities, SCVSD construction personnel shall check under stationary equipment to ensure no wildlife species are present.
- All project-related trash shall be collected daily and taken offsite for proper disposal.

BIO-3: Nesting Birds and Raptors. To avoid impacts to nesting birds and raptors, work activities within 500 feet of suitable nesting habitat shall be timed to avoid the season when nests may be active (i.e., January 15 to September 15). If work activities occur within the nesting season, a qualified biologist shall conduct a focused survey within 30 days of the anticipated start date, and no less than 3 days prior to ground disturbance, to identify any active nests within 500 feet of the development footprint. If an active nest is found, the nest shall be avoided and a suitable buffer zone shall be delineated in the field where no impacts shall occur until the chicks have fledged the nest, or has otherwise been deemed inactive by a qualified biologist.

Construction buffers shall be 300 feet for passerines or up to 500 feet for raptors; however, avoidance buffers may be reduced at the discretion of the biologist, depending on the location of the nest and species tolerance to human presence and construction-related noises and vibrations.

BIO-4: Nighttime Construction. To avoid disrupting the movement of wildlife within the Santa Clara River, construction activities shall be restricted to daylight hours (7:00 am-7:00 pm) whenever feasible. When construction must take place during nighttime hours (i.e., outfall bypass), all light sources shall be shielded and directed away from the river corridor, to minimize impacts to wildlife foraging, breeding and/or movement.

BIO-5: Special-Status Bird Surveys. Prior to the start of construction, focused surveys for the three listed bird species with potential to occur within the project area (least Bell's vireo, southwestern willow flycatcher and/or yellow-billed cuckoo) shall be conducted to determine presence/absence of the species within the study area. These shall be conducted in accordance with the Least Bell's Vireo Survey Guidelines,¹ A Natural History Summary and Survey Protocol for the Southwestern Willow Flycatcher² and A Natural History Summary and Survey Protocol for the Western Distinct Population Segment of the Yellow-billed Cuckoo.³ If surveys verify absence of all species, no further action is required.

If surveys determine that these species are present within 500 feet of the project site, and avoidance of the nesting bird season (Mitigation Measure BIO-3) is not feasible, steps shall be taken to reduce effects to nesting activity by actively reducing construction noise (to no more than 10 decibels (dBA) above pre-construction ambient noise levels) at an active nest or occupied habitat. If construction must take place within 500 feet of an active nest of either the least Bell's vireo, southwestern willow flycatcher, or yellow-billed cuckoo, a qualified biologist will monitor noise levels to ensure that they do not exceed 10 dBA above pre-construction ambient noise levels. If this is not feasible, installation of temporary construction noise barriers may be installed to reduce noise levels to an acceptable level. If the blocking of noise using sound barriers is not feasible, work activities shall be postponed until the nest is deemed inactive and/or the breeding season has concluded.

BIO-6: Habitat Replacement. Impacts to aquatic resources, critical habitat and habitat occupied by a federally-listed species, CDFW sensitive natural communities, or areas covered by a conservation easement shall be replaced at a minimum replacement ratio of 1:1 for temporary impacts (excluding developed land cover) and at the following ratios for permanent impacts:

- Aquatic resources, critical habitat and habitat occupied by a federal-listed species, or CDFW sensitive natural communities – 4:1 ratio
- CDFW conservation easement
 - Disturbed habitat, Giant reed marshes, non-native annual grasses and forbs and tamarisk – 2:1 ratio
 - All other natural communities and land cover types (excluding developed land cover) – 4:1 ratio

¹ U.S. Fish and Wildlife Service (USFWS). 2001. Least Bell's Vireo Survey Guidelines. January 19, 2001.

² United States Geological Survey (USGS). 2010. A Natural History Summary and Survey Protocol for the Southwestern Willow Flycatcher.

³ USGS. 2016. A Natural History Summary and Survey Protocol for the Western Distinct Population Segment of the Yellow-billed Cuckoo. May 2016.

- SEA categories 1 and 3:
 - SEA Category 1 – 4:1 ratio
 - SEA Category 3– 2:1 ratio

Mitigation options for habitat replacement may include the creation or restoration of habitat on- or off-site, or through the purchase of mitigation credits at a suitable mitigation bank as follows:

- **On- or off-site restoration.** A restoration plan shall be developed to address habitat impacts that, at a minimum, includes the following information: estimated impacts to habitat, proposed restoration methods (e.g., hydroseeding, container planting, etc.), expected timeline, success criteria/performance standards, funding source(s) and responsible parties, maintenance methods and schedule, irrigation methods and schedule, adaptive management strategies, and a minimum 5-year monitoring and reporting program.

The proposed mitigation strategy for the creation/restoration of occupied federally-listed species habitat shall be developed in coordination with and at the approval of the USFWS and/or CDFW.

- **Mitigation Bank.** Mitigation credits shall be purchased at a mitigation bank suitable for replacement of the impacted habitat type, and will be determined in consultation with the USFWS and/or CDFW.

BIO-7: Bats. Construction activities shall take place outside of the bat roosting season (March 01-August 31 to avoid impacts to roosting and/or breeding bats where feasible. If this is not feasible, a pre-construction survey shall be completed within suitable habitat by a qualified biologist to identify active roosts within 500-ft of construction activities:

- If a day roost (non-breeding) is present, prior to the removal of any trees supporting a day roost, the biologist will ensure that all roosting individuals disperse from the location prior to removal of the vegetation to prevent direct mortality.
- If a maternity roost (lactating females and dependent young) is observed, the biologist will determine whether construction activities are likely to disturb breeding activities. If it is determined that the vegetation supporting the roost must be removed or activities are expected to disturb the breeding activities, a Bat Exclusion Plan shall be prepared for CDFW approval. At a minimum, the plan shall include avoidance and minimization measures (if deemed necessary, with noise reduction measures), to reduce potential impacts to breeding bats during construction activities and prescribed methods to evict bats safely and humanely from the roost to minimize any potential impacts.

BIO-8: Non-listed, Special-Status Mammals and Herpetofauna. A qualified biologist shall conduct a pre-construction survey of suitable habitat within 300 feet of proposed construction, for the American badger, coastal whiptail, coast horned lizard, San Diegan legless lizard and two-striped garter snake. If an individual of the aforementioned species is observed within the project site, a qualified biologist shall relocate the species to a location at least 300 feet from any potential impact areas.

If an active nest/den is encountered incidentally during the clearance survey, it shall be replaced and left undisturbed until the eggs have hatched (e.g., coastal western whiptail, coast horned lizard, etc.) and/or live young have matured enough (i.e., American badger) for the biologist to deem it inactive and/or to relocate any individuals outside of disturbance areas.

BIO-9: Southwestern Pond Turtle. Focused surveys for southwestern pond turtle in accordance with USGS Western Pond Turtle (*Emys marmorata*) Trapping Survey Protocol for the Southcoast Ecoregion⁴ and USGS Western Pond Turtle (*Emys marmorata*) Trapping Protocol for the Southcoast Ecoregion⁵ shall be conducted to determine presence/absence of the species within the study area. If surveys verify absence, no further action is required. If surveys determine that southwestern pond turtles are present within 500 feet of the project site, the following shall be completed as necessary:

- Postpone construction and reschedule outside of the breeding season (May-July) or ensure that construction remains 500 feet from known active nests or otherwise occupied (foraging and/or nesting) habitat.

If this is not feasible and activities must take place during the nesting season, steps shall be taken to reduce effects to nesting activity by actively reducing construction noise (to no more than 10 decibels (dBA) above pre-construction ambient noise levels) within proximity to occupied habitat and/or installing temporary construction noise barriers. If the active reduction of noise or the blocking of noise using sound barriers is not feasible, work activities shall be postponed until the nest is deemed inactive and/or the breeding season has concluded.

- Prior to construction, a qualified biologist shall conduct a clearance of suitable habitat within 300 feet of proposed construction. If a turtle is observed within or adjacent to the project site, a qualified biologist with approval from the USFWS, shall relocate the individual to a location at least 300 feet from any potential impact areas.

If an active nest is encountered during the clearance survey, it shall be left undisturbed until the eggs have hatched and/or the biologist has otherwise deemed it inactive.

BIO-10: Crotch's Bumble Bee. A qualified entomologist, approved by CDFW, shall conduct a focused survey in suitable habitat (e.g., Fremont cottonwood forest, blue elderberry woodland, California rose briars, and non-native grasses and forbs), in accordance with the California Bumble Bee Atlas Point Surveys⁶ protocol to determine presence/absence of the species. Surveys shall be conducted within one year prior to vegetation removal activities and a minimum of three surveys shall be conducted during peak flying season (April-August), when the species is most likely to be detected above ground. If surveys verify absence, no further action is required.

If surveys determine that Crotch's bumble bees are currently utilizing the study area, within 500 feet of the project site, a qualified entomologist shall identify the location of all nests within and adjacent to the project site. A 15-meter no disturbance buffer zone shall be established around any identified nest(s) to reduce the risk of disturbance or incidental take. A qualified entomologist shall expand the buffer zone as necessary to prevent disturbance or take. If impacts to a nest from proposed construction is unavoidable, consultation with the CDFW shall occur to determine if take authorization may be necessary. If take authorization is granted, the qualified entomologist will relocate the nest to a suitable location, through coordination with the CDFW. Various considerations shall be made to further reduce impacts during the relocation, such as 1) delaying

⁴ U.S. Geological Survey (USGS). 2006a. USGS Western Pond Turtle (*Emys marmorata*) Visual Survey Protocol for the Southcoast Ecoregion. Sacramento, CA.

⁵ U.S. Geological Survey (USGS). 2006b. USGS Western Pond Turtle (*Emys marmorata*) Trapping Survey Protocol for the Southcoast Ecoregion. Sacramento, CA.

⁶ California Bumble Bee Atlas. 2023. Point Surveys. <https://www.cabumblebeeatlas.org/point-surveys.html#:~:text=Note%20the%20start%20time%20of,that%20plant%20with%20a%20photo.>

relocation until the queen has the opportunity to emerge and 2) relocating within the home range of the nest.

Significance Determination

Less than Significant Impact with Mitigation

Sensitive Natural Communities

Impact 3.2-2: The proposed project could have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by CDFW or USFWS.

Critical Habitat

As presented below in **Table 3.2-2**, project construction will result in the permanent and temporary impact to various natural communities within the project site designated as critical habitat for the arroyo toad, least Bell’s vireo, and southwestern willow flycatcher, including Fremont cottonwood forest, Fremont cottonwood forest-arroyo willow forest, giant reed marshes, non-native grasses and forbs, among others. Portions of the project site mapped as developed (e.g., VWRP and the Old Road) that have been designated as critical habitat are assumed to have been lawfully developed and are not suitable for restoration or creation of habitat for the arroyo toad, least Bell’s vireo or southwestern willow flycatcher; therefore, these acreages have been excluded from Table 3.2-2.

**TABLE 3.2-2
SUMMARY OF IMPACTS TO CRITICAL HABITAT***

Critical Habitat	Permanent Impacts (acres)	Temporary Impacts (acres)	Total Project Site Impacts (acres)
Arroyo Toad	0.69	1.76	2.45
Least Bell's Vireo	1.27	1.54	2.
Southwestern Willow Flycatcher	0.87	1.86	2.72
* Critical Habitat acreages do not total, as they overlap			

The proposed construction would impact designated critical habitat and constitute a significant impact to the recovery of the arroyo toad, least Bell’s vireo and southwestern willow flycatcher; however, with implementation of mitigation measures BIO-6, impacts to critical habitat would be reduced to a less than significant level.

CDFW Sensitive Natural Communities

As presented below in **Table 3.2-3**, project construction would result in the permanent and temporary impact to CDFW sensitive natural communities within the project site, including blue elderberry woodland, California rose briar patches, Fremont cottonwood-arroyo willow forest, Fremont cottonwood forest and red willow forest; however, with implementation of mitigation measure BIO-6 impacts would be reduced to a less than significant level.

**TABLE 3.2-3
SUMMARY OF IMPACTS TO CDFW SENSITIVE NATURAL COMMUNITIES**

CDFW Sensitive Community	Project Site (acres)		Project Site (acres)
	Permanent Impacts (acres)	Temporary Impacts (acres)	
Blue Elderberry Woodland (S3)	0.06	0.10	0.16
California Rose Briar Patches (S3)	0.01	0.01	0.02
Fremont Cottonwood-Arroyo Willow Forest (S3)	0.01	0.10	0.11
Fremont Cottonwood Forest (S3)	0.54	1.11	1.65
Red Willow Forest (S3)	--	-	--
Total	0.62	1.32	1.94

Mitigation Measures

Implement of Mitigation Measure BIO-6

Significance Determination

Less than Significant Impact with Mitigation

Wetlands

Impact 3.2-3: The proposed project could 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.

As presented below in **Table 3.2-4**, project construction would result in a direct impact to aquatic resources within the project site.

**TABLE 3.2-4
SUMMARY OF IMPACTS TO AQUATIC RESOURCES**

Critical Habitat	Permanent Impacts (acres)	Temporary Impacts (acres)	Total Project Site Impacts (acres)
Potential Wetland Waters of the U.S./State	0.00	0.001	0.001
Potential Non-Wetland Waters of the U.S./State	0.01	0.02	0.04
Potential CDFW Jurisdiction	0.69	1.63	2.32
Total	0.70	1.65	2.36

As discussed in Section 3.2.2, *Environmental Setting*, the proposed project is situated partly within a CDFW conservation easement recorded for the VWRP property in 1993, in accordance with Streambed Alteration Agreement Notification No. 5-644-9 associated with the Stage Four Expansion Project. As shown on Figure 3.2-3, the CDFW conservation easement is located outside of the existing VWRP facility and extends up to the property boundary. As such, portions of the proposed temporary and permanent impacts would occur within the easement.

Impacts to aquatic resources and encroachment into the CDFW Conservation Easement would be considered a significant impact, and SCVSD would be required to obtain permits from the CDFW, RWQCB, and/or USACE. However, with implementation of Mitigation Measure BIO-6, which outlines a replacement strategy for temporary and permanently impacted aquatic resources, impacts would be considered less than significant.

In addition, the proposed project would impact a small portion of the VWRP Retaining Wall Extension Project's current restoration mitigation efforts, which was established in 2018, in accordance with Streambed Alteration Agreement Notification No. 1600-2016-004-R5. The proposed project would result in approximately 0.01 acre of temporary impacts to restored California sagebrush scrub, as well as removal of 4 mitigation trees associated with existing restoration effort for the VWRP Retaining Wall Extension Project. In addition to implementation of Mitigation Measure BIO-6 for temporary and permanent impacts to this area, Mitigation Measure **BIO-11** would be required to ensure that replacement values associated with additional impacts to an active restoration project are mitigated to a less than significant level.

Mitigation Measures

Implement Mitigation Measures BIO-6

Mitigation Measure BIO-11. Impacts to previously restored habitat (inclusive of 4 mitigation trees) associated with the VWRP Retaining Wall Extension Project shall require coordination with CDFW under the existing Streambed Alteration Agreement Notification No. 1600-2016-004-R5.

Significance Determination

Less than Significant Impact with Mitigation

Wildlife Movement

Impact 3.2-4: The proposed project could 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.

Underground Retaining Wall and Outfall Structures

As shown in Figure 3.2-7, designated wildlife movement corridors do not occur within the proposed project area. However, wildlife are expected to utilize the Santa Clara River and its associated riparian and upland habitat as a source of food and for movement between the Transverse Ranges to the south and east, the Coast Ranges to the north and downstream to the Pacific Ocean. The proposed project would include upgrades to an existing retaining wall and existing outfall structures. These impacts would occur close to the border of the existing VWRP and the Santa Clara River. The proposed project would require four days of nighttime construction to connect and disconnect the outfall bypass. Construction noise and nighttime lighting could result in a significant impact to species that depend on the Santa Clara River for movement. However, with the implementation of Mitigation Measure BIO-4, impacts would be reduced to a less than significant level.

Mitigation Measures

Implement Mitigation Measure BIO-4

Significance Determination

Less than Significant Impact with Mitigation

Local Policies and Ordinances

Impact 3.2-5: The proposed project could conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.

Significant Ecological Areas

The proposed project would be constructed entirely within SEA 20: Santa Clara River. As shown in Figure 3.2-4 and presented below in **Table 3.2-5**, construction would result in permanent and temporary impacts to SEA categories 1, 3, 4, and 5.

**TABLE 3.2-5
SUMMARY OF IMPACTS TO SEA RESOURCE CATEGORIES**

SEA Resource Category	Permanent Impacts (acres)	Temporary Impacts (acres)	Total Project Site Impacts (acres)
1	0.63	1.53	2.16
3	0.07	0.01	0.18
4	0.00	0.11	0.01
5	0.67	0.25	0.92
Total	1.36	1.90	3.26

In addition, several SEA protected trees, including blue elderberry and Fremont cottonwood, have been incidentally documented within the study area. Once final design is determined, the total number of SEA protected trees within the proposed impact area would be quantified prior to the start of project construction. The combined temporary and permanent impacts to SEA resource category 4 (i.e., California sagebrush scrub) are expected to total less than 5000 square feet (see Table 3.2-1); therefore, are not considered significant by the County and no mitigation is required. Similarly, Category 5 resources are not considered to be sensitive and therefore no mitigation is required for impacts to them. Impacts to SEA resource categories 1 and 3 and protected trees, however, would be considered significant. Implementation of Mitigation Measure **BIO-12** would ensure proper coordination with the Los Angeles County Department of Regional Planning, acquisition of the appropriate permits, and Mitigation Measure BIO-6 would ensure a suitable habitat replacement ratio is achieved. Therefore, with implementation of Mitigation Measures BIO-6 and BIO-12, impacts would be considered less than significant.

Mitigation Measures

Implement Mitigation Measure BIO-6.

BIO-12: SEA Resources. Impacts to SEA categories and protected trees shall be provided through coordination with the Los Angeles County Planning Department via SEA Counseling and Ministerial Review, and through the application for a Protected Tree Permit and/or SEA Conditional Use Permit.

Significance Determination

Less than Significant Impact with Mitigation

Habitat Conservation Plans

Impact 3.2-6: The proposed project could conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan.

No local, regional, or state habitat conservation plans or other approved local plan not discussed above would apply to the study area. Therefore, no impacts would occur.

Mitigation Measures

None Required

Significance Determination

No Impact

Cumulative

Impact 3.2-7: Concurrent construction and operation of the proposed project and related projects in the geographic scope could result in cumulative short-term and long-term impacts.

As discussed in Section 3.0, Environmental Setting, Impact Analysis, and Mitigation Measures, seven projects are proposed or under construction either within the VWRP or within one mile of the facility.

Three facility improvement projects are proposed within the VWRP and involve the replacement of existing pressure filters, security fence upgrades and the construction of stormwater control infrastructure. Activities associated with these projects will take place entirely within the VWRP and are not expected to result in significant impacts to sensitive biological resources.

Four projects currently under construction within one mile of the VWRP include a proposed 124,000 square foot, five-story hotel building located at 28700 Newhall Ranch Rd., located to the northeast of the study area; a two-hotel building development totaling 290 hotel rooms at 27501 and 27505 Wayne Mills Place, southeast of the study area; and a proposed water supply pipeline along Magic Mountain Parkway, to the southwest of the study area, to supply the Magic Mountain Agency with water. These projects have been approved and are situated in relatively developed portions of the City of Santa Clarita; and based on review of aerial imagery, do not appear to occur near sensitive habitats or habitats that may support sensitive species. However, it is possible that removal of sensitive biological resources, such as the removal of active bird/raptor nests or protected trees, may occur during their construction.

A road widening and bridge replacement project is proposed along the Old Road, Rye Canyon Road and Sky View Lane. This project will occur almost entirely within existing paved road rights-of-way; however, fall near the Santa Clara River. As noted above, this project may also result in the removal of sensitive biological resources (i.e., nesting bird/raptor nests or protected trees), with the addition of minimal impacts to aquatic resources.

The proposed project is expected to have an impact on sensitive biological resources, which could add to cumulative impacts within the region; however, with the implementation of mitigation measures BIO-1 through BIO-12 during the proposed project, and the implementation of appropriate mitigation during construction of each of the projects listed above, cumulative biological impacts will be reduced to a less than significant level.

Mitigation Measures

Implement Mitigation Measures BIO-1 through BIO-12

Significance Determination

Less than Significant Impact with Mitigation

3.2.4 References

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3.3 Cultural Resources

This section evaluates potential impacts to cultural resources, including historical and archaeological resources, that could result from implementation of the project. Historical Resources include all properties (historic, archaeological, landscapes, traditional, etc.) eligible or potentially eligible for the National Register of Historic Places, as well as those that may be significant pursuant to State and local laws and programs. Archaeological resources include artifacts, structural remains, and human remains belonging to an era of history or prehistory. The analysis of historical and archaeological resources is based on the *Valencia Water Reclamation Plant Middle Section Retaining Wall Ground Improvement Project, Cultural Resources Assessment* (cultural report) prepared by Environmental Science Associates (ESA) and dated February 2024. The cultural report is provided within Appendix D of this Draft EIR.

3.3.1 Environmental Setting

Prehistoric Setting

The chronology of Southern California is typically divided into three general time periods: the Early Holocene (9,600 cal B.C. to 5,600 cal B.C.), the Middle Holocene (5,600 cal B.C. to 1,650 cal B.C.), and the Late Holocene (1,650 cal B.C. to cal A.D. 1769). This chronology is manifested in the archaeological record by particular artifacts and burial practices that indicate specific technologies, economic systems, trade networks, and other aspects of culture.

While it is not certain when humans first came to California, their presence in Southern California by about 9,600 cal B.C. has been well documented. At Daisy Cave, on San Miguel Island, cultural remains have been radiocarbon dated to between 9,150 and 9,000 cal B.C. (Byrd and Raab 2007). During the Early Holocene (9,600 cal B.C. to 5,600 cal B.C.), the climate of Southern California became warmer and more arid and the human populations, who were represented by small hunter gatherers until this point and resided mainly in coastal or inland desert areas, began exploiting a wider range of plant and animal resources (Byrd and Raab 2007).

During the Late Holocene (1,650 cal B.C. to cal A.D. 1769), many aspects of Millingstone culture persisted, but a number of socioeconomic changes occurred (Erlandson 1994; Wallace 1955; Warren 1968). The native populations of Southern California were becoming less mobile, and populations began to gather in small sedentary villages with satellite resource-gathering camps. Increasing population size necessitated the intensified use of existing terrestrial and marine resources (Erlandson 1994). Evidence indicates that the overexploitation of larger, high-ranked food resources may have led to a shift in subsistence, towards a focus on acquiring greater amounts of smaller resources, such as shellfish and small-seeded plants (Byrd and Raab 2007). Between about A.D. 800 and A.D. 1350, there was an episode of sustained drought, known as the Medieval Climatic Anomaly (MCA) (Jones et al. 1999). While this climatic event did not appear to reduce the human population, it did lead to a change in subsistence strategies in order to deal with the substantial stress on resources.

Given the increasing sedentism and growing populations during the Late Holocene, territorial conscription and competition became acute. Primary settlements or village sites were typically established in areas with available freshwater, and where two or more ecological zones intersected (McCawley 1996). This strategic placement of living space provided a degree of security in that when subsistence resources

associated with one ecological zone failed, the resources of another could be exploited (McCawley 1996). Villages typically claimed and carefully defended fixed territories that may have averaged 30-square miles in size encompassing a variety of ecological zones that could be exploited for subsistence resources (McCawley 1996).

The Late Holocene marks a period in which specialization in labor emerged, trading networks became an increasingly important means by which both utilitarian and non-utilitarian materials were acquired, and travel routes were extended. Trade during this period reached its zenith as asphaltum (tar), seashells, and steatite were traded from Catalina Island (*Pimu* or *Pimugna*) and coastal Southern California to the Great Basin. Major technological changes appeared as well, particularly with the advent of the bow and arrow sometime after cal A.D. 500, which largely replaced the use of the dart and atlatl (Byrd and Raab 2007).

Ethnographic Setting

The project site is located within the territory traditionally assigned to the Tataviam.

Tataviam

The project site is located within the territory traditionally occupied by the Tataviam. Tataviam territory was concentrated along the upper reaches of the Santa Clara River drainage between the San Fernando Valley on the south and Pastoria Creek in the Tehachapi Mountains to the north. Their territory also included east Piru Creek and the southern slopes of Sawmill and Liebre Mountains, and also extended into the southern end of the Antelope Valley (King and Blackburn 1978). Tataviam territory was bounded by the Gabrielino to the south, the Serrano to the east, the Kitanemuk to the northeast, the Emigdiano Chumash to the north, and the Ventureño Chumash to the west.

There are few historical sources regarding the Tataviam. The word “Tataviam” most likely came from a Kitanemuk word that may be roughly translated as “people of the south-facing slope,” due to their settlement on south-facing mountain slopes (King and Blackburn 1978). The Chumash referred to them as “Alliklik” (Kroeber 1925). What the Tataviam called themselves is not known. The Tataviam spoke a language that was part of the Takic branch of the Uto-Aztecan language family (King and Blackburn 1978). The language was related to that spoken by the Gabrielino and Kitanemuk.

Tataviam villages varied in size from larger centers with as many as 200 people, to smaller villages with only a few families (King and Blackburn 1978). At the time of Spanish contact, the Tataviam population is estimated to have been less than 1,000. Primary vegetable food sources included acorns, juniper berries, seeds, and yucca buds. Small game such as antelope and deer supplemented these foods. Trade networks between inland groups such as the Tataviam, the coastal regions, and desert regions enabled the trade of exotic materials such as shell, asphaltum, and steatite. The first European visit to Tataviam territory occurred in A.D. 1769 with the expedition of Gaspar de Portolá, and again in 1776 with the expedition of Friar Francisco Garcés.

Historic Setting

The first European presence in what is now southern California came in 1542, when Juan Rodriguez Cabrillo led an expedition along the coast. Europeans did not return until 1769, when the expedition of Gaspar de Portola traveled overland from San Diego to San Francisco. Juan Bautista de Anza is credited

with the discovery of an inland route from Sonora to the northern coast of California in 1774, bringing him through much of present-day Riverside and San Bernardino counties (Greene 1983; Rolle 2003). With the opening of the overland route, Spanish pueblos were established, evolving into the Spanish system of governance.

In the late 18th century, the Spanish began establishing missions in California and forcibly relocating and converting native peoples (Horne and McDougall 2003). The purpose of the missions was to encourage, by any means necessary, the assimilation of Native populations to adopt the Spanish customs, language, and religion. The mission strategy relied upon an agricultural economy and as such, locations selected for the construction of a mission depended upon three factors: arable soil for crops, an adequate supply of fresh water, and a large local Indian population for labor (Rolle 2003).

In 1821 Mexico, which included much of present-day California, became independent from Spain, and during the 1820s and 1830s the California missions were secularized. Mission property was supposed to have been held in trust for the Native Californians, but instead was handed over to civil administrators and then into private ownership as land grants. After secularization, many former Mission Indians were forced to leave the Missions and seek employment as laborers, ranch hands, or domestic servants (Horne and McDougall 2003). Many ranchos continued to be used for cattle grazing by settlers during the Mexican Period. Hides and tallow from cattle became a major export for Californios (native Hispanic Californians), many of whom became wealthy and prominent members of society.

As a result of the Mexican American War (1846–1848) Mexico ceded California to the United States as part of the Treaty of Guadalupe Hidalgo in 1848. While the treaty recognized the right of Mexican citizens to retain ownership of land granted to them by Spanish or Mexican authorities, the claimant was required to prove their right to the land before a patent was given. The process was lengthy and generally resulted in the claimant losing at least a portion of their land to attorney's fees and other costs associated with proving ownership (Starr 2007). California officially was admitted to the Union and became a part of the United States in 1850.

When the discovery of gold in Northern California was announced in 1848, a huge influx of settlers from other parts of North America flooded into California. The increased population provided an additional market for the cattle industry that was established during the Spanish and Mexican periods. However, a devastating flood in 1861, followed by droughts in 1862 and 1864, led to a rapid decline of the cattle industry; over 70 percent of cattle perished during this period (McWilliams 1946; Dinkelspiel 2008). These droughts, coupled with the burden of proving ownership of their lands, caused many Hispanic-Californian landowners to lose their lands during this period (McWilliams 1946). Former ranchos were subsequently subdivided and sold for agriculture and residential settlement.

The first transcontinental railroad, known as the Pacific Railway, was completed in 1869 by the Union Pacific and Central Pacific railroads. It connected San Francisco with the eastern United States, and newcomers poured into Northern California. Southern California experienced a trickle-down effect, as many of these new inhabitants made their way south. The Southern Pacific Railroad (originally Central Pacific) extended their line from San Francisco to Los Angeles in 1876. The second transcontinental line, the Santa Fe, was completed to Los Angeles in 1887 and caused a fare war, driving ticket prices to an unprecedented low, from \$125 a ticket from Chicago to Los Angeles down to a single, solitary dollar.

Settlers flooded into southern California and the demand for property skyrocketed, boosting the population of Los Angeles from roughly 11,000 in 1880 to at least 50,000 by 1890. The populations of dozens of other nearby cities such as Pasadena, San Bernardino and Riverside shot up with it. As real estate prices soared, land that had been farmed for decades outlived its agricultural value and was sold to become residential communities, and a new word “Boom!” appeared to capture the real estate explosion (Sedgwick 2021). The subdivision of the large ranchos took place during this time (McWilliams 1946; Meyer 1981).

History of the Project Site and Surrounding Area

The project site is in the community of Valencia, in an unincorporated portion of Los Angeles County in the Santa Clarita Valley. The site was originally part of the Rancho San Francisco and land in the area was purchased by Thomas A. Scott and Thomas Bard, representatives of the California Petroleum Company in 1865 (SCVHistory ND). They sold 39,503 acres of land to San Francisco businessman Henry Mayo Newhall in 1875. Newhall formed Newhall Ranch for cattle and crops in the western portion of the Santa Clarita Valley. He invested in the railroad industry and became the President of the San Francisco & San Jose Railroad. He sold his holdings in the San Francisco & San Jose Railroad to Southern Pacific Railroad (SPRR) and granted a right-of-way for the company to build a railroad through Newhall Ranch, extending the line to an area immediately east of the project site. He also granted a parcel of land to the railroad company to build a depot and subdivide land for the development of the town of Newhall, one of the earliest settlements in the area (Mello 2018; Boston 2009; Ranch of the River, ND).

Typical of western towns in this period, oil was a major industry, drawing settlers to the area after it was discovered in nearby Pico Canyon (Boston 2009). Mining was also a key industry in the area and was discovered before the land was acquired by Newhall. In 1842, Francisco Lopez Y Arballo discovered gold approximately nine miles southwest of the project site, a site which has been designated California Historical Landmark #168 (Ehringer 2012). Other villages that developed around the project site in the Santa Clarita Valley were Saugus and Castaic, both situated along the transportation route of the railroad (Los Angeles County Department of Regional Planning 2012). After Newhall’s death in 1882, his widow and five sons continued to operate the ranch and established the Newhall Land and Farming Company (Boston 2009).

In 1926, the St. Francis Dam was constructed in the Santa Clarita Valley, and an aqueduct extended over the eastern portion of the Newhall Ranch. Tragically, the dam failed in 1928, resulting in extensive flooding that destroyed large portions of farmland and houses in the area. It became known as “Mulholland’s Folly” and was one of the worst civil engineering failures in the nation during the 20th century. A new dam was constructed by the Los Angeles Department of Water and Power in Bouquet Canyon in 1932–1934 (City of Santa Clarita General Plan 2011). Aerial imagery and topographic maps from the 1920s through the 1940s show the area surrounding the project site was mostly undeveloped and used for agricultural purposes with the railroad curving around the site to the east (EDR 1928–1940).

Residential development spread throughout the suburban areas of Los Angeles in the post-World War II boom, and housing tracts began to develop in the greater Santa Clarita Valley area in the 1940s and 1950s (Mello 2018; HRG 2009). A 1952 topographic map depicts oil tanks and water tanks to the southeast of the project site, and an oil well to the southwest during this time. Aerial imagery shows the area to the

east, across Old Road had been subdivided but was still vacant with no building improvements (EDR 1952).

In the 1960s, the Santa Clarita Valley experienced rapid growth and new resident predictions by the Los Angeles Board of Supervisors were said to reach 70,000 by 1975. Interstate 5 (I-5), to the immediate east of the project site, was completed in 1968 and connected the San Fernando Valley to Los Angeles. This helped fuel growth in the area by making it more accessible and appealing for suburban development. Infrastructure improvements were needed to service new residents including sewage and water services. The growth was predicted to increase sewage to five million gallons daily, and new sewage water treatment facilities were needed (Mello 2018).

Santa Clarita Valley became part of the Sanitation District of Los Angeles County in 1965. District 26, the Saugus Water Reclamation Plant, and District 32, the VWRP, were established in 1967. The Newell Land and Farming Company owned most of the surrounding area of the project site and developed the master planned community of Valencia in 1967. The area to the east of the project site also began to develop as an office park with some light industrial. An aerial image shows one large building, and a few smaller ones were constructed by 1969 (Mello 2018; EDR 1969).

By the late 1980s, the area to the east of the project site in the I-5 corridor was developed with multiple office and light industrial buildings. The communities of Valencia, Saugus, Newhall, and Canyon Country merged to become the City of Santa Clarita. The project site remains in an unincorporated portion of the valley. Magic Mountain amusement park is located to the southwest of the project site (constructed in 1971) and is separated from the VWRP by a large amount of open green space. The green space became part of a conservation easement that was granted to the State of California in 1992 (EDR 1989; County Sanitation Districts of Los Angeles County 2015; Mello 2018, HRG 2002).

In recent years, the Santa Clarita Valley has continued to experience suburban growth due to its affordability and proximity to Los Angeles. The area around the project site is agricultural and commercial to the north and south. The I-5 corridor consists of a business park with a few public city service buildings for the City of Santa Clarita. The Magic Mountain amusement park is still in operation to the west and is separated from the project site by the previously mentioned open space easement (County Sanitation Districts of Los Angeles County 2015; Google 2023; EDR 2020).

History of the Valencia Water Reclamation Plant (VWRP)

Constructed from 1966–1967, the VWRP is a sprawling industrial complex situated on six irregularly shaped parcels that total approximately 27 acres. The original construction of the VWRP was made possible through a Los Angeles County sewer bond in the amount of \$750,000 and the James E Hoagland Construction Company was hired as the builder. A 1969 aerial image shows the site consisted of one main structure (the Control Building), a few ancillary structures, and two round tanks on the southwest portion of the site. By 1976, additional rectangular processing structures had been constructed on the northern portion of the site with additional tanks to the southwest. The early plant was constructed to be able to process 1.5 million gallons of sewage with sewers located in the industrial area east of I-5. Since the site was large, future expansion could occur, with the capability to eventually process 6 million gallons daily from Valencia, other nearby villages (Mello 2018; EDR 1969, 1976).

Significant changes occurred to the site, including additional structures and tanks between 1981 and 1989 as shown by aerial imagery (EDR 1981, 1989). Another major change was a pipeline in 1984 that was constructed from the Saugus Water Reclamation Plant to the VWRP to assist with the sewage volume that was overloading the facilities at the Saugus Water Reclamation Plant (Mello 2018). In 1991, a project to build a retaining wall on the southwestern portion of the VWRP along the Santa Clara River began, with various phases constructed over the next six to seven years. The *Signal* newspaper detailed that “the retaining wall will help protect the VWRP facilities by stabilizing the plant property through lateral support to the soil, thereby reinforcing the integrity of the foundation of the facilities” (Public Notices 1991). The wall was constructed along the upper embankment and followed the natural contour of the landscape. The design was to contain a system of concrete reinforcement and a gravity system consisting of concrete modules and geogrids. In 1992, bids were solicited by Los Angeles County for a \$22 million renovation to the VWRP which included the construction of new structures and the removal/relocation of existing structures (Notice Inviting Bids 1992). The site expanded to the west as shown in a 1994 aerial image (EDR 1994). As the site expanded, it was necessary to further protect the embankment along the river from erosion by constructing an additional reinforced soil retaining wall system on the northeast Santa Clara riverbank in 1996 (State Water Resources Control Board 1996).

The upgrades to the site after the initial construction in 1967 included the following facilities: Chlorination Building, Comminutor and Influent Pumping Station, steel digestion tanks, additional backwash equalization tanks, Power Generation Building, Sludge Dewatering Building, Digester and Filtrate Equalization tanks, Maintenance Building, and Flow Equalization Tank and Pump Station (Mello 2018). The VWRP underwent structural repairs in 1997 and an additional expansion in 2005, which included the installation of advanced treatment facilities with a cost of approximately \$87.3 million (Mello 2018; Victaulic ND). Today, the site contains over fifty processing and storage structures for a variety of purposes (EDR 2020). The masonry retaining wall constructed circa 1991–1996 remains along the site creating a barrier between the VWRP and the Santa Clara Riverbed and stabilizing the facility. As previously detailed, the open space area to the southwest of the project site is part of a conservation easement.

Existing Conditions

SCCIC Records Search

A records search for the project was conducted on November 7, 2023, at the California Historical Resources Information System (CHRIS) South Central Coastal Information Center (SCCIC) housed at California State University, Fullerton. The records search results indicate that 28 cultural resources studies have been conducted within a 0.50-mile radius of the project site. Of the 28 previous studies, two (LA-10560, and -11143) have included the entirety or a portion of the project site, respectively. Nevertheless, these studies yielded negative results. The records search results indicate that six cultural resources have been previously recorded within the 0.50-mile radius. Of the six resources, one is a protohistoric archaeological site/Chumash Native American village with burials and associated artifacts (CA-LAN-823); one is a historic-period archaeological site (P-19-4830) consisting of a building foundation; one is a historical landmark (P-19-186541) commemorating the 1842 gold discovery in Placerita Canyon; and three are historic architectural resources (P-19-190315, -192633, and -192643) consisting of two bridges and the VWRP. Additional archaeological review indicates that seven cultural resources are also located in the immediate vicinity of the 0.50-mile radius. Of the seven resources, one is

a historic-period archaeological site (CA-LAN-961) consisting of the Newhall Ranch Headquarters built by pioneer Henry Newhall in 1878; and six are prehistoric archaeological resources (CA-LAN-4834, -4837, -4838, -4844, -4898, and -4899) consisting of lithic scatters.

Sacred Lands File Search

The Native American Heritage Commission (NAHC) maintains a confidential Sacred Lands File (SLF) which contains sites of traditional, cultural, or religious value to the Native American community. The NAHC was contacted on November 20, 2023, to request a search of the SLF and responded in a letter dated December 12, 2023, indicating that the results were positive and to contact the Fernandeño Tataviam Band of Mission Indians for information.

Geologic Map Review

The project site is mapped on the Dibblee and Ehrenspeck (1996) 1:24,000 geological map. The entire project site is underlain by Quaternary alluvium, composed of mixed sedimentary rocks of clay, sand and gravels (Dibblee and Ehrenspeck 1996).

Historic Resources

The study area for this analysis of historical resources, a 0.25-mile radius, is primarily comprised of commercial land use and the Santa Clara River Ecological Area. Two bridges, as well as the VWRP have been previously surveyed as detailed above in the SCCIC record search results. All three resources were assigned the code 6Z meaning they are ineligible for the National Register of Historic Places, California Register or Local designation. Preparation of the Report also involved a review of the National Register and its annual updates, the California Register, the BERD maintained by the State Office of Historic Preservation (OHP), and the *City of Santa Clarita General Plan*. These sources were utilized to identify previously recorded properties within or near the subject property. No historic resources were identified within the project site or within a 0.25-mile radius.

Cultural Resources Survey

On December 28, 2023, ESA conducted a cultural resources pedestrian survey of the potential construction impact area. The survey was aimed at identifying surface evidence of archaeological resources and documenting the existing conditions of the VWRP, the two associated output structures and retaining wall for evaluation as potential historic resources. Approximately 70 percent of the potential construction impact area was subject to systematic pedestrian survey using transect intervals spaced between 3 and 5 meters (approximately 9 to 16 feet) apart. Approximately 10 percent was subject to an opportunistic survey to identify any areas of visible ground surface. The remaining 20 percent (located in the northwestern portion of the potential construction impact area) could not be surveyed due to safety hazards (heavy vegetation and riverine environments). Ground surface visibility ranged from approximately 15 to 90 percent, due to grass coverage, leaf litter, trees, and thick overgrowth. No archaeological resources were observed during the survey.

Archaeological Sensitivity

Prehistoric Archaeological Analysis

The geologic map review indicates that the entire project site is underlain by Quaternary alluvium. These sedimentary deposits date to the late Pleistocene and Holocene (11,700 years ago to present) – the period

for which there is widely accepted evidence for human occupation of Southern California. The majority of the project site is located on a relatively flat area and immediately adjacent to the Santa Clara River, as observed in historic topographic maps and aerial photographs. The Santa Clara River could have provided a fresh water source to prehistoric inhabitants. A total of one Chumash Native American village with burials and associated artifacts (CA-LAN-823) is recorded within the 0.50-mile radius of the project site. Additional resources in the immediate vicinity of the 0.50-mile radius also include lithic scatters. In addition to the preceding information, the NAHC indicated that the SLF search results were positive for Native American cultural resources in the vicinity of the project site. Based on all of these factors, the project site appears to contain a moderate to high potential for yielding buried prehistoric archaeological resources.

Historic Archaeological Analysis

Two historic-period resources [P-19-4830 consisting of a building foundation and one historical landmark (P-19-186541) commemorating the 1842 gold discovery in Placerita Canyon] are recorded within the 0.50-mile radius of the project site. Immediately outside of the 0.50-mile radius is another historic-period archaeological site (CA-LAN-961) consisting of the Newhall Ranch Headquarters built by pioneer Henry Newhall. The review of historic topographic maps and aerial photographs did not show evidence that historic-period structures once existed within the project site. The pedestrian survey also did not identify remnants of historic structures within the project site. As a result, it appears that there is a low to moderate potential for finding buried historic-period archaeological resources.

3.3.2 Regulatory Framework

State

California Environmental Quality Act

CEQA is the principal statute governing environmental review of projects occurring in the state and is codified at *Public Resources Code (PRC) Section 21000 et seq.* CEQA requires lead agencies to determine if a proposed project would have a significant effect on the environment, including significant effects on historical or unique archaeological resources. Under CEQA (Section 21084.1), a project that may cause a substantial adverse change in the significance of an historical resource is a project that may have a significant effect on the environment.

The *CEQA Guidelines* (Title 14 California Code of Regulations [CCR] Section 15064.5) recognize that historical resources include: (1) a resource listed in, or determined to be eligible by the State Historical Resources Commission, for listing in the California Register of Historical Resources (California Register); (2) a resource included in a local register of historical resources, as defined in PRC Section 5020.1(k) or identified as significant in a historical resource survey meeting the requirements of PRC Section 5024.1(g); and (3) any object, building, structure, site, area, place, record, or manuscript which a lead agency determines to be historically significant or significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California by the lead agency, provided the lead agency's determination is supported by substantial evidence in light of the whole record. The fact that a resource does not meet the three criteria outlined above does not preclude the lead agency from determining that the resource may be an historical resource as defined in PRC Sections 5020.1(j) or 5024.1.

If a lead agency determines that an archaeological site is a historical resource, the provisions of Section 21084.1 of CEQA and Section 15064.5 of the *CEQA Guidelines* apply. If an archaeological site does not meet the criteria for a historical resource contained in the *CEQA Guidelines*, then the site may be treated in accordance with the provisions of Section 21083, which is as a unique archaeological resource. As defined in Section 21083.2 of CEQA a “unique” archaeological resource is an archaeological artifact, object, or site, about which it can be clearly demonstrated that without merely adding to the current body of knowledge, there is a high probability that it meets any of the following criteria:

- Contains information needed to answer important scientific research questions and there is a demonstrable public interest in that information;
- Has a special and particular quality such as being the oldest of its type or the best available example of its type; or,
- Is directly associated with a scientifically recognized important prehistoric or historic event or person.

If an archaeological site meets the criteria for a unique archaeological resource as defined in Section 21083.2, then the site is to be treated in accordance with the provisions of Section 21083.2, which state that if the lead agency determines that a project would have a significant effect on unique archaeological resources, the lead agency may require reasonable efforts be made to permit any or all of these resources to be preserved in place (Section 21083.1[a]). If preservation in place is not feasible, mitigation measures shall be required. The *CEQA Guidelines* note that if an archaeological resource is neither a unique archaeological nor a historical resource, the effects of the project on those resources shall not be considered a significant effect on the environment (*CEQA Guidelines* Section 15064.5[c][4]).

A significant effect under CEQA would occur if a project results in a substantial adverse change in the significance of a historical resource as defined in *CEQA Guidelines* Section 15064.5(a). Substantial adverse change is defined as “physical demolition, destruction, relocation, or alteration of the resource or its immediate surroundings such that the significance of a historical resource would be materially impaired” (*CEQA Guidelines* Section 15064.5[b][1]). According to *CEQA Guidelines* Section 15064.5(b)(2), the significance of a historical resource is materially impaired when a project demolishes or materially alters in an adverse manner those physical characteristics that:

- A. Convey its historical significance and that justify its inclusion in, or eligibility for, inclusion in the California Register; or
- B. Account for its inclusion in a local register of historical resources pursuant to section 5020.1(k) of the Public Resources Code or its identification in a historical resources survey meeting the requirements of section 5024.1(g) of the Public Resources Code, unless the public agency reviewing the effects of the project establishes by a preponderance of evidence that the resource is not historically or culturally significant; or
- C. Convey its historical significance and that justify its eligibility for inclusion in the California Register as determined by a Lead Agency for purposes of CEQA.

In general, a project that complies with the *Secretary of the Interior’s Standards for the Treatment of Historic Properties with Guidelines for Preserving, Rehabilitating, Restoring, and Reconstructing Historic Buildings* (Standards) (Grimmer, 2017) is considered to have mitigated its impacts to historical resources to a less-than-significant level (*CEQA Guidelines* Section 15064.5[b][3]).

California Register of Historical Resources

The California Register is “an authoritative listing and guide to be used by State and local agencies, private groups, and citizens in identifying the existing historical resources of the State and to indicate which resources deserve to be protected, to the extent prudent and feasible, from substantial adverse change” (PRC Section 5024.1[a]). The criteria for eligibility for the California Register are based upon National Register of Historic Places (National Register) criteria (PRC Section 5024.1[b]). Certain resources are determined by the statute to be automatically included in the California Register, including California properties formally determined eligible for, or listed in, the National Register.

To be eligible for the California Register, a prehistoric or historic-period property must be significant at the local, state, and/or federal level under one or more of the following four criteria:

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.

A resource eligible for the California Register must meet one of the criteria of significance described above, and retain enough of its historic character or appearance (integrity) to be recognizable as a historical resource and to convey the reason for its significance. It is possible that a historic resource may not retain sufficient integrity to meet the criteria for listing in the National Register, but it may still be eligible for listing in the California Register.

Additionally, the California Register consists of resources that are listed automatically and those that must be nominated through an application and public hearing process. The California Register automatically includes the following:

- California properties listed on the National Register and those formally determined eligible for the National Register;
- California Registered Historical Landmarks from No. 770 onward; and,
- Those California Points of Historical Interest that have been evaluated by the OHP and have been recommended to the State Historical Commission for inclusion on the California Register.

Other resources that may be nominated to the California Register include:

- Historical resources with a significance rating of Category 3 through 5 (those properties identified as eligible for listing in the National Register, the California Register, and/or a local jurisdiction register);
- Individual historical resources;
- Historical resources contributing to historic districts; and,
- Historical resources designated or listed as local landmarks, or designated under any local ordinance, such as a historic preservation overlay zone.

California Health and Safety Code Section 7050.5

California Health and Safety Code Section 7050.5 requires that in the event human remains are discovered, the County Coroner be contacted to determine the nature of the remains. In the event the remains are determined to be Native American in origin, the Coroner is required to contact the NAHC within 24 hours to relinquish jurisdiction.

California Public Resources Code Section 5097.98

California PRC Section 5097.98, as amended by Assembly Bill 2641, provides procedures in the event human remains of Native American origin are discovered during project implementation. PRC Section 5097.98 requires that no further disturbances occur in the immediate vicinity of the discovery, that the discovery is adequately protected according to generally accepted cultural and archaeological standards, and that further activities take into account the possibility of multiple burials. PRC Section 5097.98 further requires the NAHC, upon notification by a County Coroner, designate and notify a Most Likely Descendant (MLD) regarding the discovery of Native American human remains. Once the MLD has been granted access to the site by the landowner and inspected the discovery, the MLD then has 48 hours to provide recommendations to the landowner for the treatment of the human remains and any associated grave goods.

In the event that no descendant is identified, or the descendant fails to make a recommendation for disposition, or if the land owner rejects the recommendation of the descendant, the landowner may, with appropriate dignity, reinter the remains and burial items on the property in a location that will not be subject to further disturbance.

California Government Code Sections 6254(r) and 6254.10

These sections of the California Public Records Act were enacted to protect archaeological sites from unauthorized excavation, looting, or vandalism. Section 6254(r) explicitly authorizes public agencies to withhold information from the public relating to “Native American graves, cemeteries, and sacred places maintained by the Native American Heritage Commission.” Section 6254.10 specifically exempts from disclosure requests for “records that relate to archaeological site information and reports, maintained by, or in the possession of the Department of Parks and Recreation, the State Historical Resources Commission, the State Lands Commission, the Native American Heritage Commission, another state agency, or a local agency, including the records that the agency obtains through a consultation process between a Native American tribe and a state or local agency.”

Local

County of Los Angeles Historic Preservation Ordinance

Los Angeles County adopted a Historic Preservation Ordinance (HPO) in September of 2015. The HPO establishes criteria and procedures for the nomination, designation, and review of work on landmarks and property associated with historic districts.

The purpose of the HPO is to:

- Enhance and preserve the County’s distinctive historic, architectural, and landscape characteristics that are part of the County’s cultural, social, economic, political, and architectural history;

- Foster community pride in the beauty and noble accomplishments as represented by the County's historic resources;
- Stabilize and improve property values in and around the County's historic resources, and enhance the aesthetic and visual character and environmental amenities of these historic resources;
- Recognize the County's historic resources as economic assets and encourage and promote the adaptive reuse of these historic resources;
- Further establish the County as a destination for tourists and as a desirable location for business; and
- Specify significance criteria and procedures for the designation of landmarks and historic districts, and provide for the ongoing preservation and maintenance of these landmarks and historic districts.¹

The HPO also established the following criteria for designation of landmarks and historic districts (22.123.070).

Landmarks. A structure, site, object, tree, landscape, or natural land feature may be designated as a landmark if it is 50 years of age or older and satisfied one or more of the following criteria:

- It is associated with events that have made a significant contribution to the broad patterns of the history of the nation, State, County, or community in which it is located;
- It is associated with the lives of persons who are significant in the history of the nation, State, County, or community in which it is located;
- It embodies the distinctive characteristics of a type, architectural style, period, or method of construction, or represents the work of an architect, designer, engineer, or builder whose work is of significance to the nation, State, County, or community in which it is located; or possesses artistic values of significance to the nation, State, County, or community in which it is located;
- It has yielded, or may be likely to yield, significant and important information regarding the prehistory or history of the nation, State, County, or community in which it is located;
- It is listed, or has been formally determined eligible by the United States National Park Service for listing, in the National Register of Historic Places, or is listed, or has been formally determined eligible by the State Historical Resources Commission for listing, on the California Register of Historical Resources;
- If it is a tree, it is one of the largest or oldest trees of the species located in the County; or
- If it is a tree, landscape, or other natural land feature, it has historical significance due to an association with a historic event, person, site, street, or structure, or because it is a defining or significant outstanding feature of a neighborhood.
- Property less than 50 years of age may be designated as a landmark if it meets one or more of the criteria set forth in Subsection A, above, and exhibits exceptional importance.
- The interior space of a property, or other space held open to the general public, including but not limited to a lobby, may be designated as a landmark or included in the landmark designation of a property if the space qualifies for designation as a landmark under Subsection A or B, above.

¹ LA County, 22.124.020

Historic Districts. A geographic area, including a noncontiguous grouping of related properties, may be designated as a historic district if all of the following requirements are met:

- More than 50 percent of owners in the proposed historic district consent to the designation;
- The proposed historic district satisfies one or more of the criteria set forth in Subsections A.1 through A.5, above; and
- The proposed historic district exhibits either a concentration of historic, scenic, or sites containing common character-defining features, which contribute to each other and are unified aesthetically by plan, physical development, or architectural quality; or significant geographical patterns, associated with different eras of settlement and growth, particular transportation modes, or distinctive examples of parks or community planning.

3.3.3 Impact Analysis and Mitigation Measures

Thresholds of Significance

CEQA Guidelines Appendix G, Environmental Checklist Form, includes questions pertaining to cultural resources. The issues presented in the Environmental Checklist have been used as thresholds of significance in this section. Accordingly, the proposed project would have a significant adverse environmental impact if it would:

- Cause a substantial adverse change in the significance of a historical resource pursuant to §15064.5 (Refer to Impact 3.3-1)
- Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5 (Refer to Impact 3.3-2)
- Disturb any human remains, including those interred outside of dedicated cemeteries (Refer to Impact 3.3-3)

Methodology

A project with an effect that may cause a substantial adverse change in the significance of a historical resource is a project that may have a significant effect on the environment. In general, a significant effect under CEQA would occur if a project results in a substantial adverse change in the significance of a historical resource as defined in CEQA Guidelines Section 15064.5(a). Substantial adverse change is defined as “physical demolition, destruction, relocation, or alteration of the resource or its immediate surroundings such that the significance of a historical resource would be materially impaired” (CEQA Guidelines Section 15064.5[b][1]). In addition, while assessing the project’s impacts under CEQA, it is important to consider the ability of the historical resources to retain their integrity. A project that diminishes the integrity of a resource such that the significance of a historical resource is materially impaired, is a project that would result in a significant impact on the environment. This analysis of impacts to historical resources is based on the detailed technical information provided in the cultural report provided in Appendix D, of this Draft EIR.

The analysis of impacts to archaeological resources is based on the cultural report, which includes: (1) a records search through the CHRIS-SCCIC; (2) an SLF search through the NAHC; (3) geologic map review; (4) a cultural resources pedestrian survey; and (5) an archaeological resources sensitivity assessment.

ESA architectural historians conducted research on the subject property's construction and occupancy history and analyzed its history within the context of the development of Valencia, and water reclamation services in Los Angeles County. In addition, other tasks performed for the study included the review of aerial photographs, archival research, and review of the proposed project for compliance with CEQA impacts thresholds pursuant to CEQA Guidelines Title 14, Article 5, Section 15054.5. For the purposes of this report, the outfall structures and the retaining wall of the VWRP were evaluated as an individual resource, as well as a contributing resource to a larger historic district at the VWRP as detailed in the evaluations below.

Significance Evaluations

Significance Evaluation of the VWRP Retaining Wall

The masonry retaining wall constructed on the southwest end of the site is directly associated with the VWRP and is a crucial component that provides lateral support and stabilization for the facility. Based on survey and research, ESA confirmed the wall was constructed circa 1991–1996 and therefore does not meet the evaluation threshold for CEQA (45 years) or the California and National Register (50 years). Therefore, the VWRP retaining wall is not a historical resource as defined by CEQA and it does not meet the criteria for individual listing in either the California or National Register. However, it can be re-evaluated when enough time has passed.

Significance Evaluation of the VWRP as a Potential Historic District

The VWRP was constructed from 1966–1967 and expanded several times including a large renovation in 1992 and 2005. The need for wastewater treatment services became apparent in the mid-1960s as the population grew in the Santa Clarita Valley area. Two districts in the area were formed: District 26, the Saugus Water Reclamation Plant, and District 32, the VWRP (project site). While the VWRP provided key services needed to sustain the growth of the Santa Clarita Valley and is associated with the planned community of Valencia, multiple expansions have resulted in the loss of integrity from the original plant. More importantly, the VWRP is one of many examples of its type in the Los Angeles County Sanitation Districts. It is not an early or significant plant in the broader history of water reclamation facilities, nor does it contain any significant or unique technology. The services provided and the equipment used is similar and/or identical to water reclamation plants throughout the United States. In addition, in the Santa Clarita Valley, the VWRP was set up to operate in cooperation with the nearby Saugus Water Reclamation Plant and was not solely responsible for providing this type of service as the valley grew into the suburban area it is today. Research did not identify any important local, state, or national historical events that occurred at the VWRP. The VWRP does not appear to have contributed to the broad social, political, cultural, or economic history of Valencia, the State, or Nation.

Therefore, the VWRP does not appear to meet the significance threshold as a Historic District under National Register and California Register Criterion A/1.

The VWRP was not identified with historic personages or events in national, state, or local history. The VWRP does not appear to show any historical significance in association with individual owners or employees of the VWRP. There were no found associations with historic personages within the context of the broader Sanitation Districts of Los Angeles County.

Therefore, the VWRP does not appear to meet the thresholds of significance as a Historic District under National Register and California Register Criterion B/2.

The VWRP was designed in a common utilitarian style and does not embody distinctive characteristics of a style, type, period, or construction method. No architect was identified, and it was built by the construction company of James E. Hoagland. The company was not found to be associated with a master builder. While the VWRP is a unified entity linked by a common purpose, it has no historical, architectural, or engineering value other than its daily use as a water reclamation facility for residents of Los Angeles County. Additionally, the site has changed drastically from when construction was completed in 1967 and the renovations over the years drastically altered the original buildings and site plan. Due to numerous alterations, integrity has been lost, including design, workmanship, feeling, and setting that is necessary to convey historic significance from the original construction from 1966 to 1967.

Therefore, the VWRP does not appear to meet the thresholds of significance as a Historic District under National Register and California Register Criterion C/3.

The VWRP does not appear to yield significant information that would expand our current knowledge or theories of design, methods of construction, operation, or other information that is not already known. They are unlikely to produce any data related to history not previously known.

Therefore, the VWRP does not appear to meet the thresholds of significance as a Historic District under National Register and California Register Criterion D/4.

Significance Evaluation of Outfall Structures 001 and 002

The two outfall structures directly associated with the VWRP are located outside the footprint of the VWRP, to the west in a heavily wooded area. They are both crucial components that release disinfected effluent and stormwater into the Santa Clara River. Based on survey and research, ESA believes these structures date to the original construction period circa 1966/1967. Despite the significant function these outfall structures perform, the services provided and the equipment used is similar and/or identical to water reclamation plants throughout Southern California and the United States. Outfall Structures 001 and 002 are not unique technology, and even within Los Angeles County alone, there are numerous other water reclamation facilities that contain similar outfall structures to release treated water back into the environment. Additionally, based on associated building permits, Outfall Structures 001 and 002 have been altered, repaired, and had parts replaced since their original construction and no longer retain the required integrity.

Therefore, Outfall Structures 001 and 002 of the VWRP do not meet the significance threshold as an individual historical resource under National Register and California Register Criterion A/1.

Outfall Structures 001 and 002 of the VWRP are not identified with historic personages or events in national, state, or local history. They do not retain historical importance in association with individual owners or employees of the VWRP. There were no found associations with historic personages within the context of the broader Sanitation Districts of Los Angeles County.

Therefore, Outfall Structures 001 and 002 of the VWRP do not meet the significance threshold as an individual historical resource under National Register and California Register Criterion B/2.

Outfall Structures 001 and 002 were designed in a common utilitarian style strictly to serve the purpose of releasing disinfected effluent and stormwater back into the environment, and do not embody distinctive

characteristics of a style, type, period, or method of construction. While the VWRP is a unified entity linked by a common purpose and the outfall structures are essential for the completion of the purpose, they have no historical, architectural, or engineering value other than their daily use as part of a water reclamation facility for residents of Los Angeles County. Additionally, based on associated building permits, Outfall Structures 001 and 002 have been altered, repaired, and had parts replaced since their original construction and no longer retain the required integrity.

Therefore, Outfall Structures 001 and 002 of the VWRP do not meet the significance threshold as an individual historical resource under National Register and California Register Criterion C/3.

The outfall structures of the VWRP do not appear to yield significant information that would expand our current knowledge or theories of design, methods of construction, operation, or other information that is not already known. They are unlikely to produce any data related to history not previously known.

Therefore, Outfall Structures 001 and 002 of the VWRP do not meet the significance threshold as an individual historical resource under National Register and California Register Criterion D/4.

Evaluation Conclusion

For the reasons listed above, the retaining wall located on the southwest portion of the VWRP does not appear eligible as an individual resource under National Register and California Register Criteria. As detailed in the evaluation above, ESA concurs with the 2018 evaluation that the VWRP is not eligible as a Historic District for listing in the National Register of Historic Places or the California Register of Historic Places. Because the VWRP was not found significant, the retaining wall is not a contributor to a Historic District and does not meet the definition of a historical resource as defined by CEQA. Both the retaining wall and the larger plant are assigned a status code of 6Z, meaning they were found ineligible for the National Register, California Register, or Local designation through survey evaluation.

Impact Analysis

Historical Resources

Impact 3.3-1: The proposed project could cause a substantial adverse change in the significance of a historical resource pursuant to §15064.5.

Retaining Wall and Outfall Structures

Direct Impacts

Under CEQA Guidelines Section 15064.5 (b), the changes to a historical resource and its setting would only cause a substantial adverse change if they would detract from the integrity (location, design, setting, materials, workmanship, feeling, association) such that the historical resource's ability to convey its significance would be materially impaired to the degree that it would no longer be eligible as a historical resource pursuant to CEQA Guidelines Section 15064.5 (a). As discussed above, the VWRP and its associated retaining wall and outfall structures were found ineligible as historical resources due to a lack of significant historic associations and substantial alterations over time. Therefore, the proposed alterations would have no adverse impact since these buildings are not considered historical resources. As such, the proposed project would result in no direct impacts to historic buildings within the project site.

Indirect Impacts

Indirect impacts were analyzed to determine if the proposed project would result in a substantial material change to the integrity of historical resources located within the 0.25-mile study area of the project site that would detract from their ability to convey their significance. A 0.25-mile radius is a standard distance for considering nearby historic resources in an urban environment such as the project site and is also used in the impacts analysis that follows to assess potential indirect impacts from the project on these resources. No historical resources have been previously identified within 0.25 mile of the project site; therefore, no resources have a direct or indirect view of the project site. Therefore, the proposed alterations would have no adverse impact since no buildings within 0.25 of the project site are considered historical resources.

Mitigation Measures

None required

Significance Determination

No Impact

Archaeological Resources

Impact 3.3-2: The proposed project could cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5.

Retaining Wall and Outfall Structures

This section discusses archaeological resources that are potentially historical resources according to *State CEQA Guidelines* Section 15064.5, as well as unique archaeological resources defined in PRC Section 21083.2(g).

As previously discussed, the records search through the SCCIC indicates that three resources are found within the 0.50-mile radius and consist of a protohistoric archaeological site/Chumash Native American village with burials and associated artifacts, a historic-period archaeological site comprising a building foundation and one historical landmark commemorating the 1842 gold discovery in Placerita Canyon. The additional archaeological review indicates that seven cultural resources (including one historic-period archaeological site consisting of the Newhall Ranch Headquarters built by pioneer Henry Newhall and six prehistoric archaeological resources consisting of lithic scatters) are also located in the immediate vicinity of the 0.50-mile radius. The SLF through the NAHC yielded positive results. No archaeological resources were encountered during the pedestrian survey. The archaeological sensitivity assessment indicates that there is a moderate to high potential for yielding buried prehistoric archaeological resources based on the age of the soils (Quaternary alluvium soils, which date to the period for which there is widely accepted evidence for human occupation of Southern California) found within the project site, close proximity to a water source, and the existence of prehistoric archaeological resources within and immediately outside of the 0.50-mile radius. The archaeological sensitivity assessment also indicates that there is a low to moderate potential for finding buried historic-period archaeological resources based on the existence of historic-period archaeological resources found within and immediately outside of the 0.50-mile radius. Since the project includes ground disturbance, Mitigation Measures CUL-1 through CUL-3 are recommended in order to reduce potential impacts to previously unknown archaeological resources to less than significant levels under CEQA.

Mitigation Measures

CUL-1: Retain a Qualified Archaeologist and Conduct Construction Worker Training.

SCVSD shall retain a qualified archaeologist who meets the Secretary of the Interior's Professional Qualifications Standards to conduct construction worker cultural resources sensitivity training prior to the start of ground disturbing activities. In the event construction crews are phased, additional trainings shall be conducted for new construction personnel. The training session shall focus on the recognition of the types of archaeological resources that could be encountered within the project site, working with on-site cultural resource monitors, and the procedures to be followed if cultural resources are found. Documentation shall be retained demonstrating that all construction personnel attended the training. The qualified archaeologist shall also oversee an archaeological monitor who shall be present during construction excavations such as demolition, clearing/grubbing, grading, trenching, or any other construction excavation activity associated with the project. The qualified archaeologist shall provide technical and compliance oversight of all work as it relates to archaeological resources, shall attend the project kick-off meeting and project progress meetings on a regular basis, and shall report to the site in the event potential archaeological resources are encountered.

CUL-2: Conduct Archaeological Monitoring. The construction contractor will use a qualified archaeological monitor, working under the supervision of a qualified archaeological Principal Investigator during ground disturbing activities including, but not limited to, demolition of foundations and footings, trenching, grading, demolition of outfall structures and over excavation for secant piles within the project site. The archaeological monitor will have the authority to redirect construction equipment in the event potential archaeological resources are encountered. In the event archaeological resources are encountered, SCVSD will be notified immediately and work in the vicinity of the discovery will halt until appropriate treatment of the resource, is determined by the qualified archaeological Principal Investigator in consultation with the County in accordance with the provisions of CEQA.

CUL-3: Final Monitoring Report. The archaeological monitor shall prepare a final report and appropriate California Department of Parks and Recreation Site Forms at the conclusion of archaeological monitoring. The report shall include a description of resources unearthed, if any, treatment of the resources, results of the artifact processing, analysis, and research, and evaluation of the resources with respect to the California Register of Historical Resources and CEQA. The report and the Site Forms shall be submitted to the SCVSD, the South Central Coastal Information Center, and representatives of other appropriate or concerned agencies to signify the satisfactory completion of the project and required mitigation measures.

Significance Determination

Less than Significant Impact with Mitigation

Human Remains

Impact 3.3-3: The proposed project could disturb any human remains, including those interred outside of dedicated cemeteries.

Retaining Wall and Outfall Structures

No formal or informal cemeteries or other burial places are known to exist within the project site. However, the SLF through the NAHC yielded positive results. Additionally, since the project would involve ground-disturbing activities, it is possible that such actions could unearth, expose, or disturb

previously unknown human remains. As a result, Mitigation Measure CUL-4 would be implemented to reduce potential construction-related impacts to unknown human remains to less than significant.

Mitigation Measures

CUL-4: Human Remains. If human remains are encountered unexpectedly during construction demolition and/or grading activities, Section 7050.5 of the California Health and Safety Code (CHSC) requires that no further disturbance shall occur until the County Coroner has made the necessary findings as to origin and disposition pursuant to California PRC 5097.98. Remains suspected to be Native American are treated under CEQA at CCR 15064.5; PRC 5097.98 illustrates the process to be followed if remains are discovered. If human remains are discovered during excavation activities, the following procedure shall be observed:

Stop immediately and contact the County Coroner:

1104 N. Mission Road
Los Angeles, CA 90033
323-343-0512 (8 am to 5 pm Monday through Friday) or
323-343-0714 (After hours, Saturday, Sunday, and Holidays)

- If the remains are determined to be of Native American descent, the Coroner has 24 hours to notify the NAHC.
- The NAHC will immediately notify the person it believes to be the most likely descendant (MLD) of the deceased Native American.
- The MLD has 48 hours to make recommendations to the owner, or representative, for the treatment or disposition, with proper dignity, of the human remains and grave goods.
- If the owner does not accept the MLD's recommendations, the owner or the MLD may request mediation by the NAHC.

Significance Determination

Less than Significant Impact with Mitigation

Cumulative Impacts

Impact 3.3-4: Concurrent construction and operation of the proposed project and related projects in the geographic scope could result in cumulative short-term and long-term impacts.

Historical Resources

Related development projects in the vicinity are identified in Chapter 3, *Environmental Setting, Impact Analysis, and Mitigation Measures*, of this Draft EIR. As the project would not have a direct or indirect impact on any historical resources, there would be no cumulative impacts due to direct or indirect impacts. Therefore, impacts from related projects are not cumulatively considerable and the cumulative effects from these projects are considered less than significant.

Archaeological Resources

Many of the related projects identified in Chapter 3, *Environmental Setting, Impact Analysis, and Mitigation Measures*, of this Draft EIR, would require excavation that could potentially expose or damage potential archaeological resources. Further, in association with CEQA review, and depending on the depth of excavation and sensitivity of respective sites, mitigation measures or conditions of approval would be

required for related projects that have the potential to cause significant impacts to undiscovered archaeological resources, including existing regulations for undiscovered human remains. Implementation of such mitigation measures, conditions of approval, and compliance with regulations would avoid significant impacts. State requirements regarding impacts on archaeological resources and CEQA compliance require monitoring of excavation activities and treatment and/or curation of discovered resources where appropriate (PRC Section 15064.5). Such standard construction practices, particularly over a range of project sites, provide for protection, recovery and curation of discovered resources and preserve their contributions to the knowledge base of past population activity in the area. For those projects not subject to CEQA review, there would be some potential for impacts on archaeological resources and human remains in the event there are excavations that extend into soils conducive to retaining resources; however, regulations contained in the California Health and Safety Code and Penal Code would apply in some instances, and circumstances involving a loss of such resources are expected to be limited. Therefore, impacts from related projects are not cumulatively considerable and the cumulative effects from these projects are considered less than significant.

The proposed project is required to comply with the Mitigation Measures CUL-1 through CUL-4 and regulations cited above in the event resources are found, thus ensuring proper identification, treatment and preservation of any resources, and reducing significant impacts on archaeological resources and human remains to less than significant levels. These regulations require excavation monitoring, and treatment and curation of discoveries. Therefore, to the extent impacts on archaeological resources from related projects may occur, further contribution from the proposed project would not be cumulatively considerable, and the cumulative impacts of the proposed project would be less than significant.

Mitigation Measures

None Required

Significance Determination

Less than Significant Impact

3.3.4 References

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3.4 Geology and Soils

This section describes and evaluates the potential for construction and operation of the proposed project to result in significant impacts related to geology and soils. The analysis is based on review of available reports and maps of the project site and vicinity, relevant regulations, and a discussion of the methodology and thresholds used to determine whether the proposed project would result in significant impacts.

This section also evaluates potential impacts to paleontological resources and unique geologic features. The analysis of paleontological resources is based on the results of the *Valencia Water Reclamation Plant Middle Section Retaining Wall Ground Improvement Project, Paleontological Resources Technical Report* (February 2024) prepared for the proposed project and included as Appendix E of this Draft EIR.

3.4.1 Environmental Setting

Regional Geology

The project site lies within the Transverse Ranges' Geomorphic Province,¹ which is characterized by east-west trending mountain ranges and valleys formed by compressional forces across the big bend of the San Andreas Fault (CountySan 1998). The Transverse Ranges are relatively young geomorphic features that continue to evolve under the current tectonic interaction between the Pacific and North American tectonic plates. The topography of the Santa Clarita Valley area is dominated by the Santa Clara River and the surrounding highlands. The Santa Clara River, which is the valley's primary drainage course, flows westward from Soledad Canyon in the east into the Santa Clarita Valley, and then to the Pacific Ocean. The Santa Clara River flows along the southwest side of the proposed project location.

Local Geology and Soils

The project site is underlain by Quaternary alluvium, composed of mixed sedimentary rocks of clay, sand, and gravels (Dibblee and Ehrenspeck 2016; Morton 1976). Uplifted areas of the older Saugus Formation are found as low hills around the project site and consist of light grey to light reddish brown pebble cobble conglomerate with minor sandstone and siltstone. These sediments are believed to have been deposited by streams. The depth to the Saugus Formation below the alluvium is unknown. Older alluvial gravels cap the exposed hills of Saugus Formation but may not exist in the subsurface. The geologic units are summarized below in **Table 3.4-1**, which includes the sensitivity to paleontological resources discussed further below.

TABLE 3.4-1
SUMMARY OF GEOLOGIC UNITS WITHIN AND IMMEDIATELY ADJACENT TO PROPOSED PROJECT

Geologic Unit	Map Unit Symbol	Age	Description	Depth	Paleontological Sensitivity
Holocene-age Alluvium	Qa	Holocene (1,000-10,000 years ago)	Alluvial gravel, sand, and clay of valley areas.	Est. >25 feet.	Low
Older Alluvium	Qog	Early Holocene-Late Pleistocene (~10,000-100,000 years ago)	Alluvial fan and high terrace deposits of sand and gravel.	Unknown	Low
Saugus Formation	QTs	Early Pleistocene-Pliocene (~2 Ma)	Fluvial sands and gravels.	Unknown	Moderate

SOURCE: Dibblee and Ehrenspeck, 2016; Morton 1976

¹ A geomorphic province is a regional area that possesses similar bedrock, structure, history, and age.

Quaternary Alluvium (Qa): The youngest unit in the area is the alluvium filling the valley floors. Dibblee and Ehrenspeck (2016) do not provide much information but alluvium in the Transverse Ranges is dominantly coarse gravel to sandstone derived from the rapidly uplifting mountains adjacent to the valleys. In many areas in the larger Los Angeles Basin, younger alluvium may overly deposits of older alluvium. However, based on the regional geology of the Project Site, it is unlikely that older alluvium exists within the projected excavation depths.

Older Alluvium (Qog): While not exposed directly in the project site, mesas capped by older Quaternary alluvium are found immediately outside the project site. These regions of older alluvial fans and high terrace deposits are dominated by gravel and sand of mostly crystalline basement rocks (Dibblee and Ehrenspeck, 2016).

Saugus Formation (QTs): The Saugus Formation underlies the ridges surrounding the project site. The QTs is composed of fluvial sediments of late Pliocene to Pleistocene age. Oxidation is common as the sands and gravels are typically reddish-orange in outcrop. While not exposed in the project site, it is believed that the QTs underlies the Qa at a shallow depth.

The soil units at the project site are mostly sandy alluvium with some river wash (NRCS 2023a). Most of the soil is comprised of sand with less gravel, silt, clay, and organic material.

Soils and Soils Hazards

Expansive Soil

Expansive soils are soils that possess a “shrink-swell” characteristic, also referred to as linear extensibility. Shrink-swell is the cyclic change in volume (expansion and contraction) that occurs in fine-grained clay sediments from the process of wetting and drying; the volume change is reported as a percent change for the whole soil. Changes in soil moisture can result from rainfall, landscape irrigation, utility leakage, roof drainage, and/or perched groundwater.² This cyclical change in soil volume is measured using the coefficient of linear extensibility (COLE) (NRCS, 2023). The Natural Resources Conservation Service (NRCS) relies on linear extensibility measurements to determine the shrink-swell potential of soils. If the linear extensibility percent is more than 3 percent (COLE=0.03), shrinking and swelling may cause damage to buildings, roads, and other structures. Structural damage may occur incrementally over a long period of time, usually as a result of inadequate soil and foundation engineering or the placement of structures directly on expansive soils.

The NRCS Web Soil Survey indicates that soils beneath the project footprint have a low expansion potential (NRCS, 2023).

Soil Erosion

Erosion is the wearing-away of soil and rock by processes such as mechanical or chemical weathering, mass wasting, and the action of waves, wind, and underground water. Excessive soil erosion can eventually lead to damage of building foundations and roadways. In general, areas that are most susceptible to erosion are those that would be exposed during the construction phase when earthwork

² Perched groundwater is a local saturated zone above the water table that typically exists above an impervious layer (such as clay) of limited extent.

activities disturb soils and require stockpiling. Typically, the soil erosion potential is reduced once the soil is graded and covered with concrete, structures, asphalt, or landscaping. However, changes in drainage patterns can also cause areas to be susceptible to the effects of erosion. As discussed in Chapter 2, *Project Description*, the southwest border of the VWRP with the Santa Clara River is susceptible to erosion, especially during flood events.

Seismic Hazards

Surface Fault Rupture

The State Alquist-Priolo Earthquake Fault Zoning Act (Alquist-Priolo Act) prohibits the development of structures for human occupancy across active fault traces. Under this Act, the California Geological Survey (CGS) has established “Zones of Required Investigation” on either side of an active fault that delimits areas susceptible to surface fault rupture. The zones are referred to as Earthquake Fault Zones (EFZs) and are shown on official maps published by the CGS. Surface rupture occurs when the ground surface is broken due to a fault movement during an earthquake; typically, these types of hazards occur within 50 feet of an active fault.

The Project site lies within a seismically active region that contains active faults. Based on a review of the California Earthquake Hazards Zone Application (EQ Zapp)³ of available earthquake hazard zone data, there are no Holocene-active⁴ faults within the project site (CGS 2024). The nearest Holocene-active fault is Newhall Fault located about 1.5 miles east of the project site. The Holser fault is located just north of the project site but is not considered active (CountySan 1998).

Seismic Ground Shaking

Ground shaking occurs due to a seismic event and can cause extensive damage to life and property and may affect areas hundreds of miles away from the earthquake’s epicenter. The extent of the damage varies by event and is determined by several factors, including (but not limited to) magnitude and depth of the earthquake, distance from epicenter, duration and intensity of the shaking, underlying soil and rock types, and integrity of structures.

The entire area, including the project site, could be subject to strong groundshaking as a result of significant earthquakes within the active Newhall, San Andreas, San Fernando, and/or Simi-Northridge fault zones. The 2014 Working Group on California Earthquake Probabilities (WGCEP)⁵ concluded that there is a 60 percent probability that a magnitude (M_w) 6.7 earthquake or higher could occur in the Los Angeles region over the next 30 years (WGCEP 2015).

Liquefaction and Lateral Spreading

Liquefaction is a phenomenon in which unconsolidated, water saturated sediments become unstable due to the effects of strong seismic shaking. During an earthquake, these sediments can behave like a liquid,

³ EQ Zapp is an interactive map available on the California Geological Survey (CGS) website at <https://www.conservation.ca.gov/cgs/geohazards/eq-zapp>. EQ Zapp provides mapping of earthquake hazard zone data, including earthquake faults, liquefaction, and earthquake-induced landslide zones.

⁴ Holocene-active faults show evidence of displacement within the Holocene Epoch, or the last 11,700 years are considered active (CGS, 2008).

⁵ Also referred to as WGCEP 2014, this is a working group comprised of seismologists from the U.S. Geological Survey (USGS), CGS, Southern California Earthquake Center (SCEC), and California Earthquake Authority (CEA).

potentially causing severe damage to overlying structures. Lateral spreading is a variety of minor landslide that occurs when unconsolidated liquefiable material breaks and spreads due to the effects of gravity, usually down gentle slopes. Liquefaction-induced lateral spreading is defined as the finite, lateral displacement of gently sloping ground as a result of pore-pressure buildup or liquefaction in a shallow underlying deposit during an earthquake. The occurrence of this phenomenon is dependent on many complex factors, including the intensity and duration of ground shaking, particle-size distribution, and density of the soil.

The potential damaging effects of liquefaction include differential settlement, loss of ground support for foundations, ground cracking, heaving and cracking of structure slabs due to sand boiling, and buckling of deep foundations due to ground settlement. Dynamic settlement (i.e., pronounced consolidation and settlement from seismic shaking) may also occur in loose, dry sands above the water table, resulting in settlement of and possible damage to overlying structures. In general, a relatively high potential for liquefaction exists in loose, sandy soils that are within 50 feet of the ground surface and are saturated (below the groundwater table). Lateral spreading can move blocks of soil, placing strain on buried pipelines that can lead to leaks or pipe failure.

According to the EQ Zapp, the project site is within an identified liquefaction zone (CGS 2024). This designation is due to the higher percentage of sand in the sediments and the relatively shallow depth to groundwater due to the location next to the river.

Landslides

Landslides are one of the various types of downslope movements in which rock, soil, and other debris are displaced due to the effects of gravity. The potential for material to detach and move down slope depends on multiple factors including the type of material, water content, and steepness of terrain. Generally, earthquake-induced landslides occur within deposits of a moderate to high landslide potential when ground shaking triggers slope failures during or as a result of a nearby earthquake. The project site is relatively flat and is not located within an area identified as susceptible to landslides (CGS 2024).

Paleontological Resources

Paleontological Resources Setting

The Society of Vertebrate Paleontology (SVP) has established standard guidelines (SVP, 2010) that outline professional protocols and practices for conducting paleontological resource assessments and surveys, monitoring and mitigation, data and fossil recovery, sampling procedures, and specimen preparation, identification, analysis, and curation. Most practicing professional vertebrate paleontologists adhere closely to the SVP's assessment, mitigation, and monitoring requirements as specifically provided in its standard guidelines. Most state and local regulatory agencies accept and use the professional standards set forth by the SVP.

Paleontological sensitivity is defined as the potential for a geologic unit to produce scientifically significant fossils. This is determined by rock type, past history of the geologic unit in producing significant fossils, and fossil localities recorded from that unit. Paleontological sensitivity is derived from the known fossil data collected from the entire geologic unit, not just from a specific survey. In its "Standard Guidelines for the Assessment and Mitigation of Adverse Impacts to Non-renewable

Paleontologic Resources,” the SVP (2010) defines four categories of paleontological sensitivity (potential) for rock units: high, low, undetermined, and no potential, and makes recommendations for the level of monitoring for each.

Paleontological resources are the fossilized remains or impressions of plants and animals, including vertebrates (animals with backbones; mammals, birds, fish, etc.), invertebrates (animals without backbones; starfish, clams, coral, etc.), and microscopic plants and animals (microfossils). They are valuable, nonrenewable, scientific resources used to document the existence of extinct life forms and to reconstruct the environments in which they lived. Fossils can be used to determine the relative ages of the depositional layers in which they occur and of the geologic events that created those deposits. The age, abundance, and distribution of fossils depend on the geologic formation in which they occur and the topography of the area in which they are exposed. The geologic environments within which the plants or animals became fossilized usually were quite different from the present environments in which the geologic formations now exist.

- **High Potential.** Rock units from which vertebrate or significant invertebrate, plant, or trace fossils have been recovered are considered to have a high potential for containing additional significant paleontological resources. Rock units classified as having high potential for producing paleontological resources include, but are not limited to, sedimentary formations and some volcanoclastic formations (e. g., ashes or tephra), and some low-grade metamorphic rocks which contain significant paleontological resources anywhere within their geographical extent, and sedimentary rock units temporally or lithologically suitable for the preservation of fossils (e. g., middle Holocene and older, fine-grained fluvial sandstones, argillaceous and carbonate-rich paleosols, cross-bedded point bar sandstones, fine-grained marine sandstones, etc.).
- **Low Potential.** Reports in the paleontological literature or field surveys by a qualified professional paleontologist may allow determination that some rock units have low potential for yielding significant fossils. Such rock units will be poorly represented by fossil specimens in institutional collections, or based on general scientific consensus only preserve fossils in rare circumstances and the presence of fossils is the exception not the rule, e. g. basalt flows or Recent colluvium. Rock units with low potential typically will not require impact mitigation measures to protect fossils.
- **Undetermined Potential.** Rock units for which little information is available concerning their paleontological content, geologic age, and depositional environment are considered to have undetermined potential. Further study is necessary to determine if these rock units have high or low potential to contain significant paleontological resources. A field survey by a qualified professional paleontologist to specifically determine the paleontological resource potential of these rock units is required before a paleontological resource impact mitigation program can be developed. In cases where no subsurface data are available, paleontological potential can sometimes be determined by strategically located excavations into subsurface stratigraphy.
- **No Potential.** Some rock units have no potential to contain significant paleontological resources, for instance high-grade metamorphic rocks (such as gneisses and schists) and plutonic igneous rocks (such as granites and diorites). Rock units with no potential require no protection nor impact mitigation measures relative to paleontological resources.

For geologic units with high potential, full-time monitoring is generally recommended during any ground disturbance. For geologic units with low potential, monitoring will not generally be required. For geologic units with undetermined potential, field surveys by a qualified vertebrate paleontologist or observations of

excavations should be conducted to specifically determine the paleontological potential of the rock units present within the study area.

Paleontological Resources Record Search

A paleontological resources database search was conducted by the Natural History Museum of Los Angeles County (LACM) on November 19, 2023. The search entailed an examination of current geologic maps and known fossil localities within the Project Site and vicinity. The purpose of the records search was to: (1) determine whether any previously recorded fossil localities occur in the Project Site or vicinity; (2) assess the potential for disturbance of these localities during construction; and (3) assist in evaluating the paleontological sensitivity of the Project Site.

Results of the paleontological resources records search conducted by the LACM indicated that no fossil localities lie directly within the Project Site; however, several macro- and micro-vertebrate fossil localities (LACM VP 6062, 6063, and 6804) were identified nearby from the Saugus Formation. As the Saugus Formation likely underlies the Quaternary alluvium at a shallow depth, the findings are relevant to the Project Site (Bell, 2023).

LACM VP 6063 is located approximately 2 miles away from the Project Site and produced fossil specimens of horse (*Plesippus*) at an unknown depth. LACM VP 6804 is located approximately 1.25 miles away from the Project Site and produced a fossil specimen of Equidae at surface. LACM VP 6062 is situated approximately 2.8 miles away from the Project Site and yielded specimens of anguid lizard (*Gerrhonotus*), rabbit (*Leporidae*), pocket gopher (*Thomomys*), and pocket mouse (*Perognathus*) at unknown depths (Bell, 2023).

Literature Review

Geologists consider the Saugus Formation was deposited mostly in a nonmarine depositional environment, with local shallow marine interbeds near its base (Winterer and Durham 1962). Clasts within the Saugus Formation, undivided consist of plutonic, metamorphic, and volcanic rock fragments originating from the San Gabriel Mountains on the south, as well as metamorphic schist fragments originating from the Sierra Pelona on the northeast (Campbell et al. 2014; Norris and Webb 1990).

The Saugus Formation contains numerous fossil localities yielding horse, tapir, deer, camel, canine, rabbit, rodent, bird, lizard, invertebrate, and plant fossils (Axelrod and Cota 1993; Geiger and Groves 1999; Groves 1991; Oakeshott 1950; Winterer and Durham 1962; Yeats and McLaughlin 1970).

Paleontological Sensitivity Analysis

The literature and geologic mapping review, as well as the LACM records search results, were used to assign paleontological sensitivity to the geologic units at surface and underlying the Project Site, following the guidelines of the SVP (2010):

- **Holocene alluvium (Qa):** Holocene alluvium is found across the entire Project Site to an unknown depth. As alluvium in the valleys of the Transverse Ranges is likely less than 5,000 years old, the Holocene alluvium is considered too young to contain fossils. Therefore, this unit is assigned a **Low Potential** to contain paleontological resources.

- **Older Alluvium (Qog):** The older alluvium exposed around the Project Site is of an age to contain significant Ice Age fossils. However, all the exposures are dominated by coarse gravels eroded from the adjacent mountains. Coarse sedimentary facies are not as likely to host fossils due to the original environment. Therefore, the older alluvium is assigned a **Low Potential** to contain paleontological resources.
- **Saugus Formation (QTs):** The Saugus Formation likely occurs below the Quaternary alluvium in the Project Site at an unknown depth. The Saugus Formation has yielded significant fossils near the Project Site and throughout the greater Transverse Ranges as demonstrated in museum records and the published literature. Based on the standards of the SVP, the Saugus Formation is assigned a **High Potential** to contain paleontological resources.

3.4.2 Regulatory Framework

Federal

Clean Water Act

The federal Clean Water Act (CWA) and subsequent amendments, under the enforcement authority of the U.S. Environmental Protection Agency (USEPA), was enacted “to restore and maintain the chemical, physical, and biological integrity of the Nation’s waters.” The purpose of the CWA is to protect and maintain the quality and integrity of the nation’s waters by requiring states to develop and implement state water plans and policies. The CWA gave the USEPA the authority to implement pollution control programs such as setting wastewater standards for industry. In California, implementation and enforcement of the National Pollutant Discharge Elimination System (NPDES) program is conducted through the California State Water Resources Control Board (SWRCB) and the nine Regional Water Quality Control Boards (RWQCBs). The CWA also sets water quality standards for surface waters and established the NPDES program to protect water quality through various sections of the CWA, including Sections 401 through 404 and 303(d) that are implemented and regulated by the SWRCB and the nine RWQCBs.

State

Alquist-Priolo Earthquake Fault Zoning Act

The Alquist-Priolo Earthquake Fault Zoning Act was passed in 1972 to protect structures for human occupancy from the hazard of surface faulting. In accordance with the act, the State Geologist has established regulatory zones—called earthquake fault zones—around the surface traces of active faults and has published maps showing these zones. Because many active faults are complex and consist of more than one branch that may experience ground surface rupture, earthquake fault zones extend approximately 200 to 500 feet on either side of the mapped fault trace.

Seismic Hazards Mapping Act

The Seismic Hazards Mapping Act was passed in 1990 following the Loma Prieta earthquake to reduce threats to public health and safety and to minimize property damage caused by earthquakes. This act requires the State Geologist to delineate various seismic hazard zones, and cities, counties, and other local permitting agencies to regulate certain development projects within these zones. For projects that would locate structures for human occupancy within designated Zones of Required Investigation, the Seismic Hazards Mapping Act requires project applicants to perform a site-specific geotechnical investigation to

identify the potential site-specific seismic hazards and corrective measures, as appropriate, prior to receiving building permits. The CGS Guidelines for Evaluating and Mitigating Seismic Hazards (Special Publication 117A) provides guidance for evaluating and mitigating seismic hazards (CGS, 2008).

California Building Code (CBC)

The California Building Code (CBC), which is codified in Title 24 of the California Code of Regulations, Part 2, was promulgated to safeguard the public health, safety, and general welfare by establishing minimum standards related to structural strength, means of egress to facilities (entering and exiting), and general stability of buildings. The purpose of the CBC is to regulate and control the design, construction, quality of materials, use/occupancy, location, and maintenance of all buildings and structures within its jurisdiction. Title 24 is administered by the California Building Standards Commission, which, by law, is responsible for coordinating all building standards. Under State law, all building standards must be centralized in Title 24 or they are not enforceable. The provisions of the CBC apply to the construction, alteration, movement, replacement, location, and demolition of every building or structure or any appurtenances connected or attached to such buildings or structures throughout California.

The 2022 edition of the CBC is based on the 2021 International Building Code (IBC) published by the International Code Council, which replaced the Uniform Building Code (UBC). The code is updated triennially, and the 2022 edition of the CBC was published by the California Building Standards Commission on July 1, 2022, and took effect starting January 1, 2023. The 2022 CBC contains California amendments based on the American Society of Civil Engineers (ASCE) Minimum Design Standard ASCE/SEI 7, Minimum Design Loads for Buildings and Other Structures, provides requirements for general structural design and includes means for determining earthquake loads as well as other loads (such as wind loads) for inclusion into building codes.

Requirements for geotechnical investigations are included in Appendix J, CBC Section J104, Engineered Grading Requirements. As outlined in Section J104, applications for a grading permit are required to be accompanied by plans, specifications, and supporting data consisting of a soils engineering report and engineering geology report. Additional requirements for subdivisions requiring tentative and final maps and for other specified types of structures are in California Health and Safety Code Sections 17953 to 17955 and in 2013 CBC Section 1802. Testing of samples from subsurface investigations is required, such as from borings or test pits. Studies must be done as needed to evaluate slope stability, soil strength, position and adequacy of load-bearing soils, the effect of moisture variation on load-bearing capacity, compressibility, liquefaction, differential settlement, and expansiveness.

National Pollutant Discharge Elimination System (NPDES) Construction General Permit

Construction associated with projects that would disturb more than one acre of land surface affecting the quality of stormwater discharges into waters of the United States is subject to the *NPDES General Permit for Stormwater Discharges Associated with Construction and Land Disturbance Activities* (Order 2022-0057-DWQ, NPDES No. CAS000002). The Construction General Permit (CGP) regulates discharges of pollutants in stormwater associated with construction activity to waters of the U.S. from construction sites that disturb one acre or more of land surface, or that are part of a common plan of development or sale that disturbs more than one acre of land surface. The permit regulates stormwater discharges associated

with construction or demolition activities, such as clearing and excavation; construction of buildings; and linear underground projects, including installation of water pipelines and other utility lines.

The CGP requires that construction sites be assigned a Risk Level of 1 (low), 2 (medium), or 3 (high), based both on the sediment transport risk at the site and the receiving waters risk during periods of soil exposure (e.g., grading and site stabilization). The sediment risk level reflects the relative amount of sediment that could potentially be discharged to receiving water bodies and is based on the nature of the construction activities and the location of the site relative to receiving water bodies. The receiving waters risk level reflects the risk to the receiving waters from the sediment discharge. Depending on the risk level, the construction projects could be subject to the following requirements:

- Effluent standards;
- Good site management “housekeeping;”
- Non-stormwater management;
- Erosion and sediment controls;
- Run-on and runoff controls;
- Inspection, maintenance, and repair; or
- Monitoring and reporting requirements.

The CGP requires the development and implementation of a Stormwater Pollution Prevention Plan (SWPPP) that includes specific best management practices (BMPs) designed to prevent sediment and pollutants from contacting stormwater from moving off site into receiving waters. The BMPs fall into several categories, including erosion control, sediment control, waste management and good housekeeping, and are intended to protect surface water quality by preventing the off-site migration of eroded soil and construction-related pollutants from the construction area. Routine inspection of all BMPs is required under the provisions of the CGP. In addition, the SWPPP is required to contain a visual monitoring program, a chemical monitoring program for non-visible pollutants, and a sediment monitoring plan if the site discharges directly to a water body listed on the 303(d) list for sediment.

The SWPPP must be prepared before construction begins. The SWPPP must contain a site map(s) that delineates the construction work area, existing and proposed buildings, parcel boundaries, roadways, stormwater collection and discharge points, general topography both before and after construction, and drainage patterns across the project area. The SWPPP must list BMPs and the placement of those BMPs that the applicant would use to protect stormwater runoff. Additionally, the SWPPP must contain a visual monitoring program; a chemical monitoring program for “non-visible” pollutants to be implemented if there is a failure of BMPs; and a sediment monitoring plan if the site discharges directly to a water body listed on the 303(d) list for sediment. Examples of typical construction BMPs include scheduling or limiting certain activities to dry periods, installing sediment barriers such as silt fence and fiber rolls, and maintaining equipment and vehicles used for construction. Non-stormwater management measures include installing specific discharge controls during certain activities, such as paving operations, vehicle and equipment washing and fueling. The CGP also sets post-construction standards (i.e., implementation of BMPs to reduce pollutants in stormwater discharges from the site following construction).

In the project area, the CGP is implemented and enforced by the Los Angeles RWQCB, which administers the stormwater permitting program. Dischargers must electronically submit a notice of intent and permit registration documents to obtain coverage under this CGP. Dischargers are to notify the Los Angeles RWQCB of violations or incidents of non-compliance, and submit annual reports identifying deficiencies in the BMPs and explaining how the deficiencies were corrected. The risk assessment and SWPPP must be prepared by a State Qualified SWPPP Developer, and implementation of the SWPPP must be overseen by a State Qualified SWPPP Practitioner. A legally responsible person, who is legally authorized to sign and certify permit registration documents, is responsible for obtaining coverage under the permit.

California Public Resources Code Section 5097.5

PRC Section 5097.5 provides protection for paleontological resources on public lands, where Section 5097.5(a) states, in part, that:

No person shall knowingly and willfully excavate upon, or remove, destroy, injure, or deface, any historic or prehistoric ruins, burial grounds, archaeological or vertebrate paleontological site, including fossilized footprints, inscriptions made by human agency, rock art, or any other archaeological, paleontological or historical feature, situated on public lands, except with the express permission of the public agency having jurisdiction over the lands.

California Environmental Quality Act

CEQA requires that public agencies identify the environmental consequences of their proposed projects and project approvals and as such, paleontological resources are afforded consideration under CEQA. Appendix G of the CEQA guidelines (Title 14, Division 6, Chapter 3, California Code of Regulations: 15000 et seq.) includes as one of the questions to be answered in the Environmental Checklist (Appendix G, Section V, Part c) the following: “Would the project directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?” PRC Section 5097.5 specifies that any unauthorized removal of paleontological remains is a misdemeanor. Other State requirements for paleontological resource management are in PRC Chapter 1.7, Section 5097.5 through 5097.9 (Stats. 1965, c. 1136, p. 2792), Archaeological, Paleontological, and Historical Sites. This statute defines any unauthorized disturbance or removal of a fossil site or remains on public land as a misdemeanor and specifies that State agencies may undertake surveys, excavations, or other operations as necessary on State lands to preserve or record paleontological resources. CEQA documentation prepared for projects would be required to analyze paleontological resources as a condition of the CEQA process to disclose potential impacts.

Society for Vertebrate Paleontology Standard Guidelines

As discussed above, PRC Section 5097.5 and the California Environmental Quality Act Statute require protection of paleontological resources. Although not as formal regulation per se, the Society for Vertebrate Paleontology (SVP) has established standard guidelines that outline professional protocols and practices for conducting paleontological resource assessments and surveys, monitoring and mitigation, data and fossil recovery, sampling procedures, and specimen preparation, identification, analysis, and

curation (SVP 2010). The SVP guidelines are the industry standard. As defined by the SVP, significant nonrenewable paleontological resources are:⁶

Fossils and fossiliferous deposits here are restricted to vertebrate fossils and their taphonomic and associated environmental indicators. This definition excludes invertebrate or paleobotanical fossils except when present within a given vertebrate assemblage. Certain invertebrate and plant fossils may be defined as significant by a project paleontologist, local paleontologist, specialists, or special interest groups, or by lead agencies or local governments.

As defined by the SVP, significant fossiliferous deposits are:⁷

A rock unit or formation which contains significant nonrenewable paleontologic resources, here defined as comprising one or more identifiable vertebrate fossils, large or small, and any associated invertebrate and plant fossils, traces, and other data that provide taphonomic, taxonomic, phylogenetic, ecologic, and stratigraphic information (ichnites and trace fossils generated by vertebrate animals, e.g., trackways, or nests and middens which provide datable material and climatic information). Palaeontologic resources are considered to be older than recorded history and/or older than 5,000 years BP [before present].

Based on the significance definitions of the SVP, all identifiable vertebrate fossils are considered to have significant scientific value.⁸ This position is adhered to because vertebrate fossils are relatively uncommon, and only rarely will a fossil locality yield a statistically significant number of specimens of the same genus. Therefore, every vertebrate fossil found has the potential to provide significant new information on the taxon it represents, its paleoenvironment, and/or its distribution. Furthermore, all geologic units in which vertebrate fossils have previously been found are considered to have high sensitivity. Identifiable plant and invertebrate fossils are considered significant if found in association with vertebrate fossils or if defined as significant by project paleontologists, specialists, or local government agencies.

Local

County of Los Angeles General Plan

The applicable measures of the Los Angeles County General Plan Safety Element are specified below as being the most current standards.

Goal S 1: An effective regulatory system that prevents or minimizes personal injury, loss of life and property damage due to seismic and geotechnical hazards.

Policy S 1.1: development in Seismic Hazard and Alquist-Priolo Earthquake Fault Zones.

⁶ SVP, Assessment and mitigation of adverse impacts to nonrenewable paleontologic resources: standard guidelines, Society of Vertebrate Paleontology News Bulletin 163:22–27, 1995.

⁷ SVP, Assessment and mitigation of adverse impacts to nonrenewable paleontologic resources: standard guidelines, Society of Vertebrate Paleontology News Bulletin 163:22–27, 1995.

⁸ SVP, Assessment and mitigation of adverse impacts to nonrenewable paleontologic resources: standard guidelines, Society of Vertebrate Paleontology News Bulletin 163:22–27, 1995.

Policy S 1.3: Require developments to mitigate geotechnical hazards, such as soil instability and landslides, in Hillside Management Areas through siting and development standards.

The Conservation and Natural Resources Element of the County’s General Plan indicates that “... paleontological resources are an important part of Los Angeles County’s identity” (Los Angeles County General Plan, 2022:163). The Element provides the following goal and policies for the treatment of paleontological resources:

Goal C/NR 14: Protect historic, cultural, and paleontological resources.

Policy C/NR 14.1: Mitigate all impacts from new development on or adjacent to historic, cultural, and paleontological resources to the greatest extent feasible.

Policy C/NR 14.2: Support an inter-jurisdictional collaborative system that protects and enhances historic, cultural, and paleontological resources.

Policy C/NR 14.5: Promote public awareness of historic, cultural, and paleontological resources.

Policy C/NR 14.6: Ensure proper notification and recovery processes are carried out for development on or near historic, cultural, and paleontological resources.

3.4.3 Impact Analysis and Mitigation Measures

Thresholds of Significance

CEQA Guidelines Appendix G, Environmental Checklist Form, includes questions pertaining to geology and soils. The issues presented in the Environmental Checklist have been used as thresholds of significance in this section. Accordingly, the proposed project would have a significant adverse environmental impact if it would:

- Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving: (Refer to Impact 3.4-1 and *Effects Found Not to be Significant*)
 - Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.
 - Strong seismic ground shaking
 - Seismic-related ground failure, including liquefaction
 - Landslides
- Result in substantial soil erosion or the loss of topsoil (Refer to Impact 3.4-2)
- 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 (Refer to Impact 3.4-3)
- Be located on expansive soil⁹ creating substantial direct or indirect risks to life or property (Refer to Impact 3.4-4)

⁹ The CBC no longer includes a Table 18-1-B. Instead, Section 1803.5.3 of the CBC describes the criteria for analyzing expansive soil.

- Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature (Refer to Impact 3.4-5)
- 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 (Refer to *Effects Found Not to be Significant*)

Methodology

Geology and Soils

This environmental analysis of the potential impacts related to geology and soils is based on a review of the results of the review of literature and database research (geologic, seismic, and soils reports and maps), and the Los Angeles County General Plan.

The project would be regulated by the various laws, regulations, and policies summarized above in Section 3.4.2, *Regulatory Framework*. Compliance by the project with applicable federal, state, and local laws and regulations is assumed in this analysis and local and state agencies would be expected to continue to enforce applicable requirements to the extent that they do so now. Note that compliance with many of the regulations is a condition of permit approval.

The structural elements of the project would undergo appropriate design-level geotechnical evaluations prior to final design and construction. Implementing the regulatory requirements in the CBC and County ordinances and ensuring that all buildings and structures constructed in compliance with the law is the responsibility of the project engineers and building officials. The geotechnical engineer, as a registered professional with the State of California, is required to comply with the CBC and local codes while applying standard engineering practice and the appropriate standard of care for the particular region in California, which, in the case of the project, is the County of Los Angeles.¹⁰ The California Professional Engineers Act (Building and Professions Code Sections 6700-6799), and the Codes of Professional Conduct, as administered by the California Board of Professional Engineers and Land Surveyors, provides the basis for regulating and enforcing engineering practice in California. The local Building Officials are typically with the local jurisdiction and are responsible for inspections and ensuring CBC compliance prior to approval of the building permit.

Paleontological Resources

The analysis of paleontological resources in this section of the Draft EIR is summarized from the *Paleontological Resources Assessment Report* prepared by a qualified ESA paleontologist (Appendix E). The analysis included a geologic map and literature review, a paleontological resources records search through the Natural History Museum Los Angeles County, and a paleontological sensitivity analysis.

Paleontological sensitivity is the potential for a geologic unit to produce scientifically significant fossils that could yield information important to prehistory, or that embody the distinctive characteristics of a type of organism, environment, period of time, or geographic region. This is determined by rock type, past history of the geologic unit in producing significant fossils, and fossil localities recorded from that unit; for this reason, paleontological sensitivity depends on the known fossil data collected from the entire

¹⁰ A geotechnical engineer (GE) specializes in structural behavior of soil and rocks. GEs conduct soil investigations, determine soil and rock characteristics, provide input to structural engineers, and provide recommendations to address problematic soils.

geologic unit, not just a specific survey. The SVP defines four categories of paleontological sensitivity or, per the SVP guidelines, potential, for the presence of paleontological resources – high, low, undetermined, and no potential, as further described in the Paleontological Resources Assessment Report. For geologic units with high potential, full-time monitoring is typically appropriate during any project-related ground disturbance because of the risk to paleontological resources. For geologic units with low potential, protection or salvage efforts are not generally required because of the low risk of encountering paleontological resources. For geologic units with undetermined potential, accepted professional practice typically includes field surveys conducted by a qualified vertebrate paleontologist to determine the paleontological potential of the rock units present in the study area, which in turn prescribes how mitigation measures should be assigned. For geologic units with no potential to produce scientifically significant fossils, no protection or salvage efforts are normally required.

Effects Found Not to Be Significant

Based on the project site characteristics and location, the Initial Study prepared for the proposed project, and attached as Appendix A, determine that the following thresholds would result in no impact or less than significant impacts as described below:

- **Location on an active fault:** As discussed in Section 3.4.1, *Environmental Setting*, there are no active faults that pass through the project site. The nearest active fault is the Newhall Fault, located approximately 1.5 miles east of the project site. Therefore, there would be no impact relative to the proposed project being located on an active fault, and this topic will not be evaluated further in this section.
- **Location on a landslide:** As discussed in Section 3.4.1, *Environmental Setting*, the project site is not located on or adjacent to areas susceptible to landslides. Therefore, there would be no impact relative to landslides and this topic will not be evaluated further in this section.
- **Location on expansive soil:** As discussed in Section 3.4.1, *Environmental Setting*, the project site is not located on expansive soils. Therefore, there would be no impact relative to the proposed project being located on expansive soils and this topic will not be evaluated further in this section.
- **Use of septic tanks or alternative wastewater disposal systems:** As discussed in Chapter 2, Project Description, the project does not include the use of septic tanks or alternative waste water disposal systems. Therefore, there would be no impact relative to the proposed project constructing or using septic tanks or alternative waste water disposal systems and this topic will not be evaluated further in this section.

Impact Analysis

Seismicity and Liquefaction

Impact 3.4-1: The proposed project could cause potential substantial adverse effects involving rupture of a known earthquake fault, strong seismic ground shaking, seismic-related ground failure including liquefaction, and/or landslides.

Underground Retaining Wall Improvement and Outfall Structures

Construction and Operation

There are no Holocene-active faults crossing the project site. However, the project site is in a seismically active region. The active Newhall, San Andreas, San Fernando, and/or Simi-Northridge fault zones are in proximity to the project site and are likely sources for strong seismic ground shaking in the event of an

earthquake from any of these fault zones. Due to the proximity to the fault zones, project components would be subject to strong seismic ground shaking in the event of an earthquake originating from one of the previously mentioned fault zones. The intensity of such an event would depend on the causative fault and the distance to the epicenter, the magnitude, the duration of shaking, and the nature of the geologic materials on which the project components would be constructed. Intense groundshaking and high ground accelerations would affect the entire area. The primary and secondary effects of groundshaking and seismically induced ground failures could damage structures, and/or distort or break pipelines and concrete structures. Strong seismic ground shaking has historically caused damage, injury, and loss of life; these hazards could potentially result in damage to project components.

As required by California law, the design of most structures would be subject to the seismic design criteria of the CBC and County building codes, which require that all improvements be constructed to withstand anticipated ground shaking from regional fault sources. The proposed project would be required to conduct a site-specific geotechnical investigation prior to the issuance of the grading permit and would be required to retain a licensed geotechnical engineer to design new structures to withstand probable seismically induced ground shaking. The CBC standards and County codes require structures to be designed consistent with a site-specific, design-level geotechnical report, which would be fully compliant with the seismic recommendations of a California-registered professional geotechnical engineer. Adherence to the applicable CBC requirements and County codes would ensure that the project would not directly or indirectly cause substantial adverse effects, including the risk of loss, injury, or death involving strong seismic ground shaking. The impact would be less than significant.

Mitigation Measures

None Required

Significance Determination

Less than Significant Impact

Erosion and Topsoil

Impact 3.4-2: The proposed project could result in substantial soil erosion or the loss of topsoil.

Underground Retaining Wall Improvement and Outfall Structures

Construction

Proposed project construction would involve ground-disturbing earthwork including removal of existing structures, soil excavation and filling, trenching, and grading. During construction, heavy equipment such as bulldozers, graders, earth movers, heavy trucks, trenching equipment and other machinery would be used. These activities could increase the susceptibility of soil on the project site to erosion or loss of topsoil by wind or water. The erosion could damage structures and release sediment into waterways.

Construction of the project would require disturbance of more than one acre and thus would be required to apply for coverage under the State Construction General Permit. A site-specific SWPPP would be developed and implemented as part of the project in accordance with the Construction General Permit to minimize water impacts during construction. The SWPPP would include BMPs designed to control and reduce soil erosion. The BMPs may include the use of silt fences, straw wattles, and other BMPs as

needed. Compliance with the Construction General Permit would prevent erosion during construction and would be effective in ensuring that construction activities would result in a less than significant impact.

Operation

Once constructed, the underground retaining wall improvements and outfall structures would decrease erosion along the VWRP border with the Santa Clara River, especially during flood events. The prevention of erosion and loss of topsoil would be a beneficial impact.

Mitigation Measures

None Required

Significance Determination

Less than Significant Impact

Unstable Geologic Units or Soil

Impact 3.4-3: The proposed project could be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project.

Underground Retaining Wall Improvement and Outfall Structures

Construction and Operation

As previously discussed above in *Environmental Setting*, the project site is not located in an area susceptible to landslides. Liquefaction and lateral spreading are primarily caused by seismic shaking, which is addressed above in Impact 3.4-1.

Project construction would include excavations and dewatering that would result in short-term open excavations that could be susceptible to subsidence or collapse. As previously discussed above in Impacts 3.4-1 and 3.4-2, construction would be subject to the requirements of the CBC and County building codes, which would include conducting geotechnical investigations to analyze potential unstable soil conditions at a site. If unstable soil conditions are determined to be present at a given site, the geotechnical report specific to that site would include site-specific design requirements to implement to reduce or avoid adverse effects associated with unstable soils. In addition, excavations over five feet in depth or within unstable ground are required to have a protective system by OSHA (e.g., sloping, shoring, or shielding).

Compliance with the OSHA, CBC, and City code requirements, including implementation of safety measures for excavations, would reduce impacts related to unstable soils to less than significant.

Mitigation Measures

None Required

Significance Determination

Less than Significant Impact

Paleontological Resources

Impact 3.4-4: The proposed project could directly or indirectly destroy a unique paleontological resource or site or unique geologic feature.

Underground Retaining Wall Improvement and Outfall Structures

Construction

Excavation for the proposed project may impact paleontological resources at depth if excavation exceeds the thickness of the young Quaternary alluvium and intersects the Saugus Formation. Because the depth to the base of the alluvium is unknown, **Mitigation Measures GEO-1 and GEO-2**, which include retention of a Qualified Paleontologist, construction worker paleontological resources sensitivity training, and procedures to follow in the event of the discovery of paleontological resources, would reduce potentially significant impacts to paleontological resources to a less than significant level.

Operation

Once constructed, no further ground disturbance would occur and no paleontological resources could be affected. During operation, relative to paleontological resources, there would be no impact.

Mitigation Measures

GEO-1: Prior to any Project ground disturbance activities, a qualified paleontologist shall be retained by SCVSD to prepare a Worker's Environmental Awareness Program (WEAP) and train all construction personnel prior to the start of any construction activities. The WEAP training shall include, at a minimum, the following information:

- Review of local and State laws and regulations pertaining to paleontological resources;
- Types of fossils that could be encountered during ground disturbing activity in the Saugus Formation;
- Photos of example fossils based on the regional LACM collections that could occur on site for reference; and
- Instructions on the procedures to be implemented should unanticipated fossils be encountered during construction, including stopping work in the vicinity of the find and contacting a qualified professional paleontologist.

GEO-2: In the event an unanticipated fossil discovery is made during ground disturbing activities, construction activities shall halt in the immediate vicinity of the fossil, and the qualified professional paleontologist retained by SCVSD shall be notified to evaluate the discovery, determine its significance, and evaluate whether additional mitigation or treatment is warranted. Work in the area of the discovery shall resume once the find is properly documented and authorization is given by the qualified paleontologist to resume construction work. Any significant paleontological resources found shall be prepared, identified, analyzed, and permanently curated in an approved regional museum repository.

Significance Determination

Less than Significant Impact with Mitigation

Cumulative Impacts

Impact 3.4-5: Concurrent construction and operation of the proposed project and related projects in the geographic scope could result in cumulative short-term and long-term impacts.

This section presents an analysis of the cumulative effects of the project in combination with other past, present, and reasonably foreseeable future projects that could cause cumulatively considerable impacts. Significant cumulative impacts related to geology, soils, and paleontological resources could occur if the incremental impacts of the project combined with the incremental impacts of one or more cumulative projects. The cumulative projects considered in this EIR are summarized in Chapter 3, *Environmental Setting, Impact Analysis, and Mitigation Measures*, under *Cumulative Impact Analysis*. Future cumulative developments near the proposed project are identified in Table 3-2 would involve construction and operation of hotel land uses, public infrastructure projects, and facility improvements.

As discussed above, in Section 4.6.3, *Impacts Found to be Less than Significant*, there would be no impacts associated with surface fault rupture, landslides, expansive soil, or septic systems. Therefore, these topics would not contribute to cumulative impacts, and will not be discussed in a cumulative context.

The geographic area affected by the project and its potential to contribute to cumulative impacts varies based on the environmental resource under consideration. The geographic scope of analysis for cumulative geology and soils impacts encompasses and is limited to the project site's immediately adjacent area. This is because impacts relative to geology and soils are generally site-specific and depend on the nature and extent of the geologic hazard, and existing and future soil and groundwater conditions. For example, the effect of erosion would tend to be limited to the localized area of a project and could only be cumulative if erosion occurred as the result of two or more adjacent projects that spatially overlapped.

The timeframe during which the project could contribute to cumulative geology and soils effects includes the construction and operations phases. For the project, the operations phase is permanent. However, similar to the geographic limitations discussed above, it should be noted that impacts relative to geology and soils are generally time-specific. Geology and soils effects could only be cumulative if two or more geologic hazards occurred at the same time, as well as overlapping at the same location.

Cumulative Impacts during Project Construction

As discussed in Section 3.4.1, *Environmental Setting*, seismically induced groundshaking, liquefaction, and/or lateral spreading could cause structural damage to project components. Inadequate design of stormwater control features could result in erosion.

CBC and County building regulations and standards, described in the Section 3.4.2, *Regulatory Framework*, have been established to address seismic and unstable geologic unit and soils conditions. The project and cumulative projects would be required to comply with applicable provisions of the CBC and County codes. Through compliance with these requirements, the potential for impacts would be reduced or prevented. As explained in the *Regulatory Framework*, the purpose of the CBC and County codes is to regulate and control the design, construction, quality of materials, use/occupancy, location, and maintenance of all buildings and structures within its jurisdiction; by design, it is intended to reduce the cumulative risks from buildings and structures. Therefore, based on compliance with these requirements, the incremental impacts of the project combined with impacts of other projects in the area would not

cause a significant cumulative impact related to seismically induced groundshaking, liquefaction and lateral spreading, or erosion, and the project's contribution to cumulative effects would not be cumulatively considerable.

The state Construction General Permit would require each project to prepare and implement a SWPPP. The SWPPPs would describe BMPs to control runoff and prevent erosion for each project. Through compliance with this requirement, the potential for erosion impacts would be prevented. The Construction General Permit has been developed to address cumulative conditions arising from construction throughout the state and is intended to maintain cumulative effects of projects subject to this requirement below levels that would be considered significant. For example, two adjacent construction sites would be required to implement BMPs to reduce and control water runoff and runoff, and thus prevent erosion. With compliance with the Construction General Permit, project's contribution to cumulative effects would not be cumulatively considerable.

As discussed in Impact 3.4-4, the proposed project has the potential to encounter and adversely affect paleontological resources. To mitigate the potential impact, the proposed project would require Mitigation Measures GEO-1 and GEO-2. Similarly, related cumulative projects that have the potential to encounter paleontological resources would also be required to evaluate the paleontological sensitivity and potential impact to paleontological resources and implement appropriate mitigation measures to reduce the impacts to paleontological resources to less than significant.

Cumulative Impacts during Project Operations

As discussed in Impacts 3.4-1, 3.4-2, 3.4-3, and 3.4-4, the proposed project would have no impacts during operations. Accordingly, the proposed project would not contribute to cumulative impacts related to operations and these topics are not discussed further.

Mitigation Measures

None Required

Significance Determination

Less than Significant Impact

3.4.4 References

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3.5 Greenhouse Gas Emissions

This section discusses global climate change and greenhouse gas (GHG) emissions in relationship to the proposed project, presents the associated regulatory framework, and provides an analysis of potential impacts that would result from construction and implementation of the proposed project.

3.5.1 Environmental Setting

Global Climate Change

Global climate change refers to changes in average climatic conditions on Earth as a whole, including changes in temperature, wind patterns, precipitation and storms. Historical records indicate that global climate changes have occurred in the past due to natural phenomena; however, current data increasingly indicate that the current global conditions differ from past climate changes in rate and magnitude. Global climate change attributable to anthropogenic (human) greenhouse gas (GHG) emissions is currently one of the most important and widely debated scientific, economic and political issues in the United States and the world. The extent to which increased concentrations of GHGs have caused or will cause climate change and the appropriate actions to limit and/or respond to climate change are the subject of significant and rapidly evolving regulatory efforts at the federal and state levels of government.

GHGs are those compounds in the Earth's atmosphere which play a critical role in determining temperature near the Earth's surface. GHGs include CO₂, CH₄, nitrous oxide (N₂O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), sulfur hexafluoride (SF₆), and nitrogen trifluoride (NF₃).¹ More specifically, these gases allow high-frequency shortwave solar radiation to enter the Earth's atmosphere, but retain some of the low frequency infrared energy, which is radiated back from the Earth towards space, resulting in a warming of the atmosphere. Not all GHGs possess the same ability to induce climate change; as a result, GHG contributions are commonly quantified in the units of equivalent mass of carbon dioxide (CO₂e). Mass emissions are calculated by converting pollutant specific emissions to CO₂e emissions by applying the proper global warming potential (GWP) value.² These GWP ratios are available from the Intergovernmental Panel on Climate Change (IPCC). Historically, GHG emission inventories have been calculated using the GWPs from the IPCC's Second Assessment Report (SAR) (IPCC 1995). The IPCC updated the GWP values based on the latest science in its Fourth Assessment Report (AR4) (IPCC 2007). The updated GWPs in the IPCC AR4 have begun to be used in recent GHG emissions inventories. By applying the GWP ratios, project-related CO₂e emissions can be tabulated in metric tons per year. Typically, the GWP ratio corresponding to the warming potential of CO₂ over a 100-year period is used as a baseline.

¹ As defined by California Assembly Bill (AB) 32 and Senate Bill (SB) 104.

² GWPs and associated CO₂e values were developed by the Intergovernmental Panel on Climate Change (IPCC), and published in its Second Assessment Report (SAR) in 1996. Historically, GHG emission inventories have been calculated using the GWPs from the IPCC's SAR. The IPCC updated the GWP values based on the latest science in its Fourth Assessment Report (AR4). The California Air Resources Board (CARB) has begun reporting GHG emission inventories for California using the GWP values from the IPCC AR4.

Compounds that are regulated as GHGs are discussed below.

- **Carbon Dioxide (CO₂):** CO₂ is the most abundant GHG in the atmosphere and is primarily generated from fossil fuel combustion from stationary and mobile sources. CO₂ is the reference gas (GWP of 1) for determining the GWPs of other GHGs (IPCC 2007).
- **Methane (CH₄):** CH₄ is emitted from biogenic sources (i.e., resulting from the activity of living organisms), incomplete combustion in forest fires, landfills, manure management, and leaks in natural gas pipelines. The GWP of CH₄ is 21 in the IPCC SAR and 25 in the IPCC AR4 (IPCC 1995 and 2007).
- **Nitrous Oxide (N₂O):** N₂O produced by human-related sources including agricultural soil management, animal manure management, sewage treatment, mobile and stationary combustion of fossil fuel, adipic acid production, and nitric acid production. The GWP of N₂O is 310 in the IPCC SAR and 298 in the IPCC AR4 (IPCC 1995 and 2007).
- **Hydrofluorocarbons (HFCs):** HFCs are fluorinated compounds consisting of hydrogen, carbon, and fluorine. They are typically used as refrigerants in both stationary refrigeration and mobile air conditioning systems. The GWP of HFCs ranges from 140 for HFC-152a to 11,700 for HFC-23 in the IPCC SAR and 124 for HFC-152a to 14,800 for HFC-23 in the IPCC AR4 (IPCC 1995 and 2007).
- **Perfluorocarbons (PFCs):** PFCs are fluorinated compounds consisting of carbon and fluorine. They are primarily created as a byproduct of aluminum production and semiconductor manufacturing. The GWPs of PFCs range from 6,500 to 9,200 in the IPCC SAR and 7,390 to 17,700 in the IPCC AR4 (IPCC 1995 and 2007).
- **Sulfur Hexafluoride (SF₆):** SF₆ is a fluorinated compound consisting of sulfur and fluoride. It is a colorless, odorless, nontoxic, nonflammable gas. It is most commonly used as an electrical insulator in high voltage equipment that transmits and distributes electricity. SF₆ has a GWP of 23,900 in the IPCC SAR and 22,800 in the IPCC AR4 (IPCC 1995 and 2007).
- **Nitrogen Trifluoride (NF₃):** NF₃ is a fluorinated compound consisting of nitrogen and fluoride. It is an inorganic, colorless, non-flammable, toxic gas with a slightly musty odor. NF₃ is used as a replacement for SF₆ in the electronics industry. It is typically used in plasma etching and chamber cleaning during the manufacturing of semi-conductors and liquid crystal display (LCD) panels (Greenhouse Gas Protocol 2013). NF₃ has a GWP of 17,200 in the IPCC AR4, and 16,100 in the IPCC AR5 (IPCC 1995 and 2007).

Worldwide man-made emissions of GHGs are approximately 49,000 million metric tons of carbon dioxide equivalent (MMTCO₂e) annually including ongoing emissions from industrial and agricultural sources and emissions from land use changes (e.g., deforestation) (IPCC 2014). Emissions of CO₂ from fossil fuel use and industrial processes account for 65 percent of the total while CO₂ emissions from all source's accounts for 76 percent of the total. Methane emissions account for 16 percent and N₂O emissions for 6.2 percent. In 2019, the United States was the world's second largest emitter of carbon dioxide at 6,600 MMTCO₂e (China was the largest emitter of carbon dioxide at 14,000 MMTCO₂e) (PBL 2020).

Existing Statewide Greenhouse Gas Emissions

The California Air Resources Board (CARB), a part of the California Environmental Protection Agency (CalEPA), is responsible for the coordination and administration of both federal and State air pollution control programs within California. CARB compiles the State's GHG emissions inventory. Based on the 2021 GHG inventory data (i.e., the most updated inventory for which data are available from CARB),

California emitted 381.3 million metric tons of CO₂e (MMTCO₂e) including emissions resulting from imported electrical power (CARB 2024a). Between 1990 and 2023, the population of California grew by approximately 32 percent (from 29.8 to 38.9 million) (USCB 1995; CDF 2024). In addition, the California economy, measured as gross state product, grew from approximately \$773 billion in 1990 to \$3.6 trillion in 2022, representing an increase of approximately five times the 1990 gross state product (CDF 2023).³ Despite the population and economic growth, California's net GHG emissions were reduced to below 1990 levels in 2016 and has continued to decline. According to CARB, the declining trend coupled with the State's GHG reduction programs (such as the Renewables Portfolio Standard [RPS], Low Carbon Fuel Standard [LCFS], vehicle efficiency standards, and declining caps under the Cap-and-Trade Program) demonstrate that California is on track to meet the 2030 GHG reduction target of 40 percent below 1990 levels codified in Executive Order B-30-15.

Existing Project Site Greenhouse Gas Emissions

The proposed project includes the reinforcement of the existing middle section retaining wall along the southwestern side of the Valencia Water Reclamation Plant (VWRP) and upgrades to two existing outfall structures. The VWRP is located at 28151 The Old Road in Valencia. The VWRP is located in an urbanized area in unincorporated Los Angeles County. The project site is bound by The Old Road to the north and adjacent commercial businesses to the northeast, the Santa Clara River to the west and south, and Six Flags Magic Mountain amusement park to the southwest beyond the Santa Clara River. The project site is located between the VWRP boundary and the Santa Clara River. The project is an improvement project to existing facilities and would not change operational GHG emissions at the VWRP. As such, operational emissions are evaluated qualitatively in this Draft EIR. Project construction emissions will be considered as new emissions.

Urban Heat Island

According to the California Environmental Protection Agency (CalEPA), the urban heat island effect refers to large, urbanized areas that experience higher temperatures, greater pollution and more negative health impacts during hot summer months when compared to more rural communities (CalEPA 2024). Heat islands are created by a combination of heat-absorptive surfaces (such as dark pavement and roofing), heat-generating activities (such as engines and generators) and the absence of vegetation (which provides evaporative cooling). Daytime temperatures in urban areas are on average 1 to 6 degrees Fahrenheit (F) higher than in rural areas, while nighttime temperatures can be as much as 22 degrees F higher as the heat is gradually released from buildings and pavement (CalEPA 2024). Assembly Bill (AB) 296 (Chapter 667, Statutes of 2012) required that CalEPA develop an Urban Heat Island Index (UHII) to quantify the extent and severity of an urban heat island for individual cities to map where and how intensely they manifest at a local scale (CalEPA 2024). In 2015, CalEPA released maps that show the scientifically assigned UHII scores based on atmospheric modeling for each census tract in and around most urban areas throughout the state. The urban area in which the VWRP is located has an approximate UHII range of 0 to 10 (CalEPA 2024). The UHII range is equivalent to an average temperature difference

³ Amounts are based on current dollars as of the date of the report (June 2023).

between rural and urban areas of approximately 0 to 0.75 degrees F.⁴ It is important to note that the UHII does not measure the temperatures of an area, but rather it measures the average temperature difference between rural and urban areas within a region.

Effects of Global Climate Change

The scientific community's understanding of the fundamental processes responsible for global climate change has improved over the past decade, and its predictive capabilities are advancing. However, there remain significant scientific uncertainties in, for example, predictions of local effects of climate change, occurrence, frequency, and magnitude of extreme weather events, effects of aerosols, changes in clouds, shifts in the intensity and distribution of precipitation, and changes in oceanic circulation. Due to the complexity of the Earth's climate system and inability to accurately model it, the uncertainty surrounding climate change may never be completely eliminated. Nonetheless, the IPCC's *Fifth Assessment Report, Summary for Policy Makers*, states that, "it is *extremely likely* that more than half of the observed increase in global average surface temperature from 1951 to 2010 was caused by the anthropogenic increase in greenhouse gas concentrations and other anthropogenic forcings [*sic*] together" (IPCC 2013). A report from the National Academy of Sciences concluded that 97 to 98 percent of the climate researchers most actively publishing in the field support the tenets of the IPCC in that climate change is very likely caused by human (i.e., anthropogenic) activity (Anderegg 2010). In the most recent IPCC *Sixth Assessment Report, Summary for Policy Makers*, it states "It is unequivocal that human influence has warmed the atmosphere, ocean, and land" (IPCC 2021).

According to CalEPA, the potential impacts in California due to global climate change may include loss in snowpack; sea-level rise; more extreme heat days per year; more high ozone days; more large forest fires; more drought years; increased erosion of California's coastlines and sea water intrusion into the Sacramento and San Joaquin Deltas and associated levee systems; and increased pest infestation (CalEPA 2006). Below is a summary of some of the potential effects that could be experienced in California as a result of global warming and climate change. Data regarding potential future climate change impacts are available from the Cal-Adapt website which represents a projection of potential future climate scenarios. The data are comprised of the average values from a variety of scenarios and models and are meant to illustrate how the climate may change based on a variety of different potential social and economic factors.

3.5.2 Regulatory Framework

Federal

The United States Environmental Protection Agency (USEPA) is responsible for implementing federal policy to address GHGs. The federal government administers a wide array of public-private partnerships to reduce the GHG intensity generated in the United States. These programs focus on energy efficiency, renewable energy, methane and other non-CO₂ gases, agricultural practices, and implementation of technologies to achieve GHG reductions. The USEPA implements numerous voluntary programs that contribute to the reduction of GHG emissions. These programs (e.g., the Energy Star labeling system for

⁴ According to CalEPA, to perform an approximate conversion to a total number of degrees Fahrenheit per day, divide the Index by 24 hours and multiply the result by 1.8 degrees. For example, if the Index is 10 degree-hours per day, then the approximate average temperature difference between rural and urban in that area is 0.75 degrees F (i.e., $10 / 24 * 1.8 = 0.75$).

energy-efficient products) encourage voluntary reductions by large corporations, consumers, industrial and commercial buildings, and many major industrial sectors.

Clean Air Act

In *Massachusetts v. Environmental Protection Agency* (2007) 549 U.S. 497, the U.S. Supreme Court held in April of 2007 that the USEPA has statutory authority under Section 202 of the CAA to regulate GHGs. The court did not hold that the USEPA was required to regulate GHG emissions; however, it indicated that the agency must decide whether GHGs cause or contribute to air pollution that is reasonably anticipated to endanger public health or welfare. On December 7, 2009, the USEPA Administrator signed two distinct findings regarding GHGs under Section 202(a) of the CAA. The USEPA adopted a Final Endangerment Finding for the six defined GHGs (CO₂, CH₄, N₂O, HFCs, PFCs, and SF₆) on December 7, 2009. The Endangerment Finding is required before USEPA can regulate GHG emissions under Section 202(a)(1) of the CAA consistently with the United States Supreme Court decision. The USEPA also adopted a Cause or Contribute Finding in which the USEPA Administrator found that GHG emissions from new motor vehicle and motor vehicle engines are contributing to air pollution, which is endangering public health and welfare. These findings do not, by themselves, impose any requirements on industry or other entities. However, these actions were a prerequisite for implementing GHG emissions standards for vehicles.

Energy Independence and Security Act

The Energy Independence and Security Act of 2007 (EISA) facilitates the reduction of national GHG emissions by requiring the following:

- Increasing the supply of alternative fuel sources by setting a mandatory Renewable Fuel Standard (RFS) that requires fuel producers to use at least 36 billion gallons of biofuel in 2022;
- Prescribing or revising standards affecting regional efficiency for heating and cooling products, procedures for new or amended standards, energy conservation, energy efficiency labeling for consumer electronic products, residential boiler efficiency, electric motor efficiency, and home appliances;
- Requiring approximately 25 percent greater efficiency for light bulbs by phasing out incandescent light bulbs between 2012 and 2014; requiring approximately 200 percent greater efficiency for light bulbs, or similar energy savings, by 2020; and
- While superseded by the USEPA and the National Highway Traffic Safety Administration (NHTSA) actions described above, (i) establishing miles per gallon targets for cars and light trucks and (ii) directing the NHTSA to establish a fuel economy program for medium- and heavy-duty trucks and create a separate fuel economy standard for trucks.

Additional provisions of EISA address energy savings in government and public institutions, promote research for alternative energy, additional research in carbon capture, international energy programs, and the creation of green jobs.⁵

⁵ A green job, as defined by the United States Department of Labor, is a job in business that produces goods or provides services that benefit the environment or conserve natural resources.

Executive Order 13432

In response to the *Massachusetts v. Environmental Protection Agency* ruling, the President signed Executive Order 13432 on May 14, 2007, directing the USEPA, along with the Departments of Transportation, Energy, and Agriculture, to initiate a regulatory process that responds to the Supreme Court's decision. Executive Order 13432 was codified into law by the 2009 Omnibus Appropriations Law signed on February 17, 2009. The order sets goals in the areas of energy efficiency, acquisition, renewable energy, toxics reductions, recycling, sustainable buildings, electronics stewardship, fleets, and water conservation.

Light-Duty Vehicle Fuel Efficiency Standards

In response to the *Massachusetts v. Environmental Protection Agency* ruling, President George W. Bush issued Executive Order 13432 in 2007, directing the USEPA, the U.S. Department of Transportation (USDOT), and the U.S. Department of Energy (USDOE) to establish regulations that reduce GHG emissions from motor vehicles, non-road vehicles, and non-road engines by 2008. The National Highway Traffic Safety Administration (NHTSA) subsequently issued multiple final rules, known as the Corporate Average Fuel Economy (CAFE) ⁶ standards, regulating fuel efficiency for, and GHG emissions from, cars and light-duty trucks for model year 2011 and later for model years 2012–2016 and 2017–2021. In April 2020, the USDOT and the USEPA issued the final Safer Affordable Fuel-Efficient (SAFE) Vehicles Rule, which amends existing CAFE standards and tailpipe carbon dioxide emissions standards for passenger cars and light trucks and establishes new standards covering model years 2021 through 2026 (USEPA 2020). These standards set a combined fleet wide average of 33.2 to 37.1 for the model years affected (USEPA 2020).

In February 2022, the USEPA issued the Revised 2023 and Later Model Year Light-Duty Vehicle Greenhouse Gas Emissions Standards (USEPA 2021a). This final rule revises current GHG standards beginning for vehicles in model year 2023 and through model year 2026 and establishes the most stringent GHG standards ever set for the light-duty vehicle sector that are expected to result in average fuel economy label values of 40 mpg, while the standards they replace (the SAFE rule standards) would achieve only 32 mpg in model year 2026 vehicles (USEPA 2021b).

On July 28, 2023, the NHTSA proposed new CAFE standards for passenger cars and light trucks for model years 2027 through 2032, and new fuel efficiency standards for heavy-duty pickup trucks and vans for model years 2030 through 2035. The proposed rule would require an industry fleet-wide average of approximately 58 mpg for passenger cars and light trucks in model year 2032, by increasing fuel economy by two percent year over year for passenger cars and four percent year over year for light trucks (NHTSA 2023). For heavy-duty pickup trucks and vans, the proposed rule would increase fuel efficiency by 10 percent year over year (NHTSA 2023).

Heavy-Duty Engines and Vehicle Fuel Efficiency Standards

In addition to the regulations applicable to cars and light-duty trucks described above, in 2011 the NHTSA announced fuel economy and GHG standards for medium- and heavy-duty trucks for model

⁶ The Corporate Average Fuel Economy standards are regulations in the United States, first enacted by Congress in 1975, to improve the average fuel economy of cars and light trucks. The U.S. Department of Transportation has delegated the National Highway Traffic Safety Administration as the regulatory agency for the Corporate Average Fuel Economy standards.

years 2014–2018 (NHTSA 2011). The standards for CO₂ emissions and fuel consumption are tailored to three main vehicle categories: combination tractors, heavy-duty pickup trucks and vans, and vocational vehicles. According to the USEPA, this regulatory program would reduce GHG emissions and fuel consumption for the affected vehicles by 6 to 23 percent over the 2010 baselines. Building on the first phase of standards, in August 2016, the NHTSA finalized Phase 2 standards for medium and heavy-duty vehicles through model year 2027 that will improve fuel efficiency and cut carbon pollution (NHTSA 2016). The Phase 2 standards are expected to lower CO₂ emissions by approximately 1.1 billion metric tons (NHTSA 2016). On April 12, 2023, the NHTSA proposed Phase 3 of the GHG Emissions Standards for heavy-duty vehicles beginning in model year 2027 which would set new, more stringent standards for model years 2028 through 2032 (USEPA 2023). The Phase 3 greenhouse gas standards would apply to heavy-duty vocational vehicles (such as delivery trucks, refuse haulers, public utility trucks, transit, shuttle, school buses, etc.) and tractors (such as day cabs and sleeper cabs on tractor-trailer trucks). Specifically, the Phase 3 rule proposes stronger CO₂ standards for model year 2027 heavy-duty vehicles that go beyond the current Phase 2 standards and is proposing an additional set of CO₂ standards that would begin to apply in model year 2028, with progressively lower standards each model year through 2032 (USEPA 2023).

Paris Agreement

During the Leaders' Summit on Climate in April 2021, President Biden fulfilled his promise to rejoin the Paris Agreement and set a course for the United States to tackle the climate crisis at home and abroad, reaching net zero emissions economy-wide by no later than 2050. Additionally, as part of reentering the Paris Agreement, the United States established a new 2030 GHG emissions target, known as the “nationally determined contribution,” which is a formal submission to the United Nations Framework Convention on Climate Change. The United States' nationally determined contribution target aims for a 50–52 percent reduction in GHG emissions from 2005 levels by 2030 (White House Briefing Room 2021b). To achieve these goals, the United States has committed to all the following actions:

- Achieve 100 percent carbon pollution-free electricity by 2035.
- Support efficiency upgrades and electrification in buildings.
- Reduce carbon pollution from the transportation sector.
- Reduce emissions from forests and agriculture and enhance carbon sinks.
- Address carbon pollution from industrial process.
- Reduce non-CO₂ GHGs, including methane, hydrofluorocarbons, and other potent short-lived climate pollutants.

State

California has promulgated a series of executive orders, laws, and regulations aimed at reducing both the level of GHGs in the atmosphere and emissions of GHGs from commercial and private activities within the State.

Executive Order S-3-05

Executive Order S-3-05 set forth the following targets for progressively reducing statewide GHG emissions (Office of the Governor 2005):

- By 2010, reduce GHG emissions to 2000 levels.
- By 2020, reduce GHG emissions to 1990 levels.
- By 2050, reduce GHG emissions to 80 percent below 1990 levels.

The executive order directed the Secretary of CalEPA to coordinate a multi-agency effort to reduce GHG emissions to the target levels. The Secretary is also mandating that biannual reports be submitted to the California Governor and Legislature describing the progress made toward the emissions targets, the impacts of global climate change on California's resources, and mitigation and adaptation plans to combat these impacts. To comply with the executive order, the secretary of CalEPA created the California Climate Action Team (CAT), made up of members from various state agencies and commissions. The first CAT Report to the Governor and the Legislature in 2006 contained recommendations and strategies to help meet the targets in Executive Order S-3-05. The most recent 2022 State Agency Greenhouse Gas Reduction Report Card documents the effectiveness of measures to reduce GHG emissions in California and GHG emissions from state agencies' operations. This report card documents reductions of 1.157 MMTCO₂e that occurred in 2021 (CalEPA 2023). In 2016, GHG emissions were 429 MMTCO₂e, showing that California reached its 2020 emissions target (431 MMTCO₂e) four years early and emissions are continuing to decline.

Executive Order B-30-15

In 2015, Executive Order B-30-15 promulgated the following targets and measures (Office of the Governor 2015):

- Established a new interim statewide reduction target to reduce GHG emissions to 40 percent below 1990 levels by 2030.
- Ordered all state agencies with jurisdiction over sources of GHG emissions to implement measures to achieve reductions of GHG emissions to meet the 2030 and 2050 reduction targets.
- Directed CARB to update the Climate Change Scoping Plan to express the 2030 target in terms of million metric tons of carbon dioxide equivalent.

Executive Order B-55-18

Executive Order B-55-18 was signed by Governor Edmund G. Brown Jr. on September 10, 2018 (Office of the Governor 2018). The order establishes an additional statewide policy to achieve carbon neutrality by 2045 and maintain net negative emissions thereafter. As per Executive Order B-55-18, CARB is directed to work with relevant state agencies to develop a framework for implementation and accounting that tracks progress toward this goal and to ensure future Climate Change Scoping Plans identify and recommend measures to achieve the carbon neutrality goal. California is making progress towards the 2045 goal, however the pathway to carbon neutrality is still under development. According to CARB, there will be a strong reliance on energy efficiency, electrification, low carbon fuels (including low-carbon electricity), and CO₂ removal in future policies and strategies for reaching the ambitious goal. The

path to carbon neutrality lies in striving for zero emissions from all new sources and maximum sequestration to offset existing sources.

Assembly Bill 32 (California Global Warming Solutions Act of 2006)

In 2006, the California Legislature adopted Assembly Bill (AB) 32 (codified in the California Health and Safety Code [HSC], Division 25.5 – California Global Warming Solutions Act of 2006), which focuses on reducing GHG emissions in California to 1990 levels by 2020. AB 32 defines GHGs as CO₂, CH₄, N₂O, HFCs, PFCs, and SF₆ and represents the first enforceable statewide program to limit emissions of these GHGs from all major industries with penalties for noncompliance. The law further requires that reduction measures be technologically feasible and cost effective. Under AB 32, CARB has the primary responsibility for reducing GHG emissions. AB 32 required CARB to adopt rules and regulations directing state actions that would achieve GHG emissions reductions equivalent to 1990 statewide levels by 2020.

Senate Bill 32 and Assembly Bill 197

In 2016, the California Legislature adopted Senate Bill (SB) 32 and its companion bill AB 197. SB 32 and AB 197 amended Health and Safety Code Division 25.5 and established a new climate pollution reduction target of 40 percent below 1990 levels by 2030, with provisions included to ensure that the benefits of state climate policies reach into vulnerable communities.

Assembly Bill 1279 and 2022 Scoping Plan

The Legislature enacted AB 1279 (CLI 2022), The California Climate Crisis Act, on September 16, 2022. AB 1279 establishes the policy of the State to achieve net zero GHG emissions, carbon neutrality⁷, as soon as possible, but no later than 2045 and to achieve and maintain net negative GHG emissions thereafter. Additionally, AB 1279 ensures that by 2045 Statewide anthropogenic greenhouse gas emissions are reduced at least 85 percent below 1990 levels. SB 1279 also requires CARB to ensure that the Scoping Plan identifies and recommends measures to achieve carbon neutrality, and to identify and implement policies and strategies for carbon dioxide removal solutions and carbon capture, utilization, and storage technologies. It also requires CARB to submit an annual report on progress in achieving the Scoping Plan's goals.

The *2022 Scoping Plan for Achieving Carbon Neutrality* (2022 Scoping Plan), adopted by CARB in December 2022, expands on prior scoping plans. The 2022 Scoping Plan Update is the most comprehensive and far-reaching Scoping Plan developed to date. This plan responds to more recent legislation, outlining a technologically feasible, cost-effective, and equity-focused path to achieve the state's climate target of reducing anthropogenic emissions to 85 percent below 1990 levels by 2045, while also assessing the progress California is making toward the 40 percent below 1990 levels by 2030, and achieving carbon neutrality by 2045 or earlier (CARB 2022a). The 2030 target is an interim but important steppingstone along the critical path to the broader goal of deep decarbonization by 2045. The 2022 Scoping Plan outlines the strategies the state will implement to achieve carbon neutrality by reducing

⁷ *Carbon neutrality* means “net zero” emissions of GHGs. In other words, it means that GHG emissions generated by sources such as transportation, power plants, and industrial processes must be less than or equal to the amount of carbon dioxide that is stored, both in natural sinks and through mechanical sequestration. AB 1279 uses the terminology net zero and the 2022 Scoping Plan uses the terminology carbon neutrality or carbon neutral. These terms mean the same thing and are used interchangeably.

GHG emissions to meet the anthropogenic target, and by expanding actions to capture and store carbon through the state’s natural and working lands and using a variety of mechanical approaches. A summary of the GHG emissions reductions and targets set forth under the 2022 Scoping Plan Update is provided in **Table 3.5-1**.

TABLE 3.5-1
ESTIMATED STATEWIDE GREENHOUSE GAS EMISSIONS REDUCTIONS IN THE 2022 SCOPING PLAN

Emissions Scenario	GHG Emissions (MMTCO ₂ e)
2019	
2019 State GHG Emissions	404
2030	
2030 BAU Forecast	312
2030 GHG Emissions without Carbon Removal and Capture	233
2030 GHG Emissions with Carbon Removal and Capture	226
2030 Emissions Target Set by AB 32 (i.e., 1990 level by 2030)	260
Reduction below Business-As-Usual necessary to achieve 1990 levels by 2030	52 (16.7%) ^a
2045	
2045 BAU Forecast	266
2045 GHG Emissions without Carbon Removal and Capture	72
2045 GHG Emissions with Carbon Removal and Capture	(3)
MMTCO ₂ e = million metric tons of carbon dioxide equivalents; parenthetical numbers represent negative values.	
a. $312 - 260 = 52 / 312 = 16.7\%$	
SOURCE: CARB, 2022. Final 2022 Scoping Plan for Achieving Carbon Neutrality. https://ww2.arb.ca.gov/sites/default/files/2023-04/2022-sp.pdf . Accessed February 2024.	

The 2022 Scoping Plan Update reflects existing and recent direction in the Governor’s Executive Orders and State Statutes, which identify policies, strategies, and regulations in support of and implementation of the Scoping Plan. Among these include Executive Order B-55-18 and AB 1279 (The California Climate Crisis Act), which identify the 2045 carbon neutrality and GHG reduction targets required for the Scoping Plan. **Table 3.5-2** provides a summary of major climate legislation and executive orders issued since the adoption of the 2017 Scoping Plan.

TABLE 3.5-2
MAJOR CLIMATE LEGISLATION AND EXECUTIVE ORDERS ENACTED SINCE THE 2017 SCOPING PLAN

Bill/Executive Order	Summary
Assembly Bill 1279 (AB 1279) (Muratsuchi, Chapter 337, Statutes of 2022) <i>The California Climate Crisis Act</i>	AB 1279 establishes the policy of the state to achieve carbon neutrality as soon as possible, but no later than 2045; to maintain net negative GHG emissions thereafter; and to ensure that by 2045 statewide anthropogenic GHG emissions are reduced at least 85 percent below 1990 levels. The bill requires CARB to ensure that Scoping Plan updates identify and recommend measures to achieve carbon neutrality, and to identify and implement policies and strategies that enable CO ₂ removal solutions and carbon capture, utilization, and storage (CCUS) technologies. This bill is reflected directly in 2022 Scoping Plan Update.

Bill/Executive Order	Summary
<p>Senate Bill 905 (SB 905) (Caballero, Chapter 359, Statutes of 2022)</p> <p><i>Carbon Capture, Removal, Utilization, and Storage Program</i></p>	<p>SB 905 requires CARB to create the Carbon Capture, Removal, Utilization, and Storage Program to evaluate, demonstrate, and regulate CCUS and carbon dioxide removal (CDR) projects and technology.</p> <p>The bill requires CARB, on or before January 1, 2025, to adopt regulations creating a unified state permitting application for approval of CCUS and CDR projects. The bill also requires the Secretary of the Natural Resources Agency to publish a framework for governing agreements for two or more tracts of land overlying the same geologic storage reservoir for the purposes of a carbon sequestration project.</p> <p>The 2022 Scoping Plan Update modeling reflects both CCUS and CDR contributions to achieve carbon neutrality.</p>
<p>Senate Bill (SB 1020) (Laird, Chapter 361, Statutes of 2022)</p> <p><i>Clean Energy, Jobs, and Affordability Act of 2022</i></p>	<p>SB 1020 adds interim renewable energy and zero carbon energy retail sales of electricity targets to California end-use customers set at 90 percent in 2035 and 95 percent in 2040. It accelerates the timeline required to have 100 percent renewable energy and zero carbon energy procured to serve state agencies from the original target year of 2045 to 2035. This bill requires each state agency to individually achieve the 100 percent goal by 2035 with specified requirements. This bill requires the CPUC, CEC, and CARB, on or before December 1, 2023, and annually thereafter, to issue a joint reliability progress report that reviews system and local reliability.</p> <p>The bill also modifies the requirement for CARB to hold a portion of its Scoping Plan workshops in regions of the state with the most significant exposure to air pollutants by further specifying that this includes communities with minority populations or low-income communities in areas designated as being in extreme federal non-attainment.</p> <p>The 2022 Scoping Plan Update describes the implications of this legislation on emissions.</p>
<p>Senate Bill 1075 (SB 1075) (Skinner, Chapter 363, Statutes of 2022)</p> <p><i>Hydrogen: Green Hydrogen: Emissions of Greenhouse Gases</i></p>	<p>SB 1075 requires CARB, by June 1, 2024, to prepare an evaluation that includes: policy recommendations regarding the use of hydrogen, and specifically the use of green hydrogen, in California; a description of strategies supporting hydrogen infrastructure, including identifying policies that promote the reduction of GHGs and short-lived climate pollutants; a description of other forms of hydrogen to achieve emission reductions; an analysis of curtailed electricity; an estimate of GHG and emission reductions that could be achieved through deployment of green hydrogen through a variety of scenarios; an analysis of the potential for opportunities to integrate hydrogen production and applications with drinking water supply treatment needs; policy recommendations for regulatory and permitting processes associated with transmitting and distributing hydrogen from production sites to end uses; an analysis of the life-cycle GHG emissions from various forms of hydrogen production; and an analysis of air pollution and other environmental impacts from hydrogen distribution and end uses.</p> <p>This bill would inform the production of hydrogen at the scale called for in the 2022 Scoping Plan Update.</p>
<p>Assembly Bill 1757 (AB 1757) (Garcia, Chapter 341, Statutes of 2022)</p> <p><i>California Global Warming Solutions Act of 2006: Climate Goal: Natural and Working Lands</i></p>	<p>AB 1757 requires the California Natural Resources Agency (CNRA), in collaboration with CARB, other state agencies, and an expert advisory committee, to determine a range of targets for natural carbon sequestration, and for nature-based climate solutions, that reduce GHG emissions in 2030, 2038, and 2045 by January 1, 2024. These targets must support state goals to achieve carbon neutrality and foster climate adaptation and resilience.</p> <p>This bill also requires CARB to develop standard methods for state agencies to consistently track GHG emissions and reductions, carbon sequestration, and additional benefits from natural and working lands over time. These methods will account for GHG emissions reductions of CO₂, methane, and nitrous oxide related to natural and working lands and the potential impacts of climate change on the ability to reduce GHG emissions and sequester carbon from natural and working lands, where feasible.</p> <p>This 2022 Scoping Plan Update describes the next steps and implications of this legislation for the natural and working lands sector.</p>
<p>Senate Bill 1206 (SB 1206) (Skinner, Chapter 884, Statutes of 2022)</p> <p><i>Hydrofluorocarbon gases: sale or distribution</i></p>	<p>SB 1206 mandates a stepped sales prohibition on newly produced high- global warming potential (GWP) hydrofluorocarbons (HFCs) to transition California's economy toward recycled and reclaimed HFCs for servicing existing HFC-based equipment. Additionally, SB 1206 also requires CARB to develop regulations to increase the adoption of very low-, i.e., GWP < 10, and no-GWP technologies in sectors that currently rely on higher-GWP HFCs.</p>

Bill/Executive Order	Summary
<p>Senate Bill 27 (SB 27) (Skinner, Chapter 237, Statutes of 2021)</p> <p><i>Carbon Sequestration: State Goals: Natural and Working Lands: Registry of Projects</i></p>	<p>SB 27 requires CNRA, in coordination with other state agencies, to establish the Natural and Working Lands Climate Smart Strategy by July 1, 2023. This bill also requires CARB to establish specified CO₂ removal targets for 2030 and beyond as part of its Scoping Plan. Under SB 27, CNRA is to establish and maintain a registry to identify projects in the state that drive climate action on natural and working lands and are seeking funding.</p> <p>CNRA also must track carbon removal and GHG emission reduction benefits derived from projects funded through the registry.</p> <p>This bill is reflected directly in 2022 Scoping Plan Update as CO₂ removal targets for 2030 and 2045 in support of carbon neutrality.</p>
<p>Senate Bill 596 (SB 596) (Becker, Chapter 246, Statutes of 2021)</p> <p><i>Greenhouse Gases: Cement Sector: Net-Zero Emissions Strategy</i></p>	<p>SB 596 requires CARB, by July 1, 2023, to develop a comprehensive strategy for the state's cement sector to achieve net-zero emissions of GHGs associated with cement used within the state as soon as possible, but no later than December 31, 2045. The bill establishes an interim target of 40 percent below the 2019 average GHG intensity of cement by December 31, 2035. Under SB 596, CARB must:</p> <p>Define a metric for GHG intensity and establish a baseline from which to measure GHG intensity reductions.</p> <ul style="list-style-type: none"> • Evaluate the feasibility of the 2035 interim target (40 percent reduction in GHG intensity) by July 1, 2028. • Coordinate and consult with other state agencies. • Prioritize actions that leverage state and federal incentives. • Evaluate measures to support market demand and financial incentives to encourage the production and use of cement with low GHG intensity. <p>The 2022 Scoping Plan Update modeling is designed to achieve these outcomes.</p>
<p>Executive Order N-82-20</p>	<p>Governor Newsom signed Executive Order N-82-20 in October 2020 to combat the climate and biodiversity crises by setting a statewide goal to conserve at least 30 percent of California's land and coastal waters by 2030. The Executive Order also instructed the CNRA, in consultation with other state agencies, to develop a Natural and Working Lands Climate Smart Strategy that serves as a framework to advance the state's carbon neutrality goal and build climate resilience. In addition to setting a statewide conservation goal, the Executive Order directed CARB to update the target for natural and working lands in support of carbon neutrality as part of this Scoping Plan, and to take into consideration the NWL Climate Smart Strategy.</p> <p>CO₂ Executive Order N-82-20 also calls on the CNRA, in consultation with other state agencies, to establish the California Biodiversity Collaborative (Collaborative). The Collaborative shall be made up of governmental partners, California Native American tribes, experts, business and community leaders, and other stakeholders from across the state. State agencies will consult the Collaborative on efforts to:</p> <ul style="list-style-type: none"> • Establish a baseline assessment of California's biodiversity that builds upon existing data and can be updated over time. • Analyze and project the impact of climate change and other stressors in California's biodiversity. • Inventory current biodiversity efforts across all sectors and highlight opportunities for additional action to preserve and enhance biodiversity. <p>CNRA also is tasked with advancing efforts to conserve biodiversity through various actions, such as streamlining the state's process to approve and facilitate projects related to environmental restoration and land management. The California Department of Food and Agriculture (CDFA) is directed to advance efforts to conserve biodiversity through measures such as reinvigorating populations of pollinator insects, which restore biodiversity and improve agricultural production.</p> <p>The Natural and Working Lands Climate Smart Strategy informs 2022 Scoping Plan Update.</p>
<p>Executive Order N-79-20</p>	<p>Governor Newsom signed Executive Order N-79-20 in September 2020 to establish targets for the transportation sector to support the state in its goal to achieve carbon neutrality by 2045. The targets established in this Executive Order are:</p> <ul style="list-style-type: none"> • 100 percent of in-state sales of new passenger cars and trucks will be zero-emission by 2035. • 100 percent of medium- and heavy-duty vehicles will be zero-emission by 2045 for all operations where feasible, and by 2035 for drayage trucks. • 100 percent of off-road vehicles and equipment will be zero-emission by 2035 where feasible.

Bill/Executive Order	Summary
	<p>The Executive Order also tasked CARB to develop and propose regulations that require increasing volumes of zero- electric passenger vehicles, medium- and heavy-duty vehicles, drayage trucks, and off-road vehicles toward their corresponding targets of 100 percent zero-emission by 2035 or 2045, as listed above.</p> <p>The 2022 Scoping Plan Update modeling reflects achieving these targets.</p>
Executive Order N-19-19	<p>Governor Newsom signed Executive Order N-19-19 in September 2019 to direct state government to redouble its efforts to reduce GHG emissions and mitigate the impacts of climate change while building a sustainable, inclusive economy. This Executive Order instructs the Department of Finance to create a Climate Investment Framework that:</p> <ul style="list-style-type: none"> • Includes a proactive strategy for the state's pension funds that reflects the increased risks to the economy and physical environment due to climate change. • Provides a timeline and criteria to shift investments to companies and industry sectors with greater growth potential based on their focus of reducing carbon emissions and adapting to the impacts of climate change. • Aligns with the fiduciary responsibilities of the California Public Employees' Retirement System, California State Teachers' Retirement System, and the University of California Retirement Program. <p>Executive Order N-19-19 directs the State Transportation Agency to leverage more than \$5 billion in annual state transportation spending to help reverse the trend of increased fuel consumption and reduce GHG emissions associated with the transportation sector. It also calls on the Department of General Services to leverage its management and ownership of the state's 19 million square feet in managed buildings, 51,000 vehicles, and other physical assets and goods to minimize state government's carbon footprint. Finally, it tasks CARB with accelerating progress toward California's goal of five million ZEV sales by 2030 by:</p> <ul style="list-style-type: none"> • Developing new criteria for clean vehicle incentive programs to encourage manufacturers to produce clean, affordable cars. • Proposing new strategies to increase demand in the primary and secondary markets for ZEVs. • Considering strengthening existing regulations or adopting new ones to achieve the necessary GHG reductions from within the transportation sector. <p>The 2022 Scoping Plan Update modeling reflects efforts to accelerate ZEV deployment.</p>
Executive Order B-55-18	<p>Governor Brown signed Executive Order B-55-18 in September 2018 to establish a statewide goal to achieve carbon neutrality as soon as possible, and no later than 2045, and to achieve and maintain net negative emissions thereafter. Policies and programs undertaken to achieve this goal shall:</p> <ul style="list-style-type: none"> • Seek to improve air quality and support the health and economic resiliency of urban and rural communities, particularly low-income and disadvantaged communities. • Be implemented in a manner that supports climate adaptation and biodiversity, including protection of the state's water supply, water quality, and native plants and animals. <p>This Executive Order also calls for CARB to:</p> <ul style="list-style-type: none"> • Develop a framework for implementation and accounting that tracks progress toward this goal. • Ensure future Scoping Plans identify and recommend measures to achieve the carbon neutrality goal. <p>The 2022 Scoping Plan Update is designed to achieve carbon neutrality no later than 2045 and the modeling includes technology and fuel transitions to achieve that outcome.</p>
<p>Senate Bill 100 (SB 100) (De León, Chapter 312, Statutes of 2018)</p> <p><i>California Renewables Portfolio Standard Program: emissions of greenhouse gases</i></p>	<p>Under SB 100, the CPUC, CEC, and CARB shall use programs under existing laws to achieve 100 percent clean electricity. The statute requires these agencies to issue a joint policy report on SB 100 every four years. The first of these reports was issued in 2021.</p> <p>The 2022 Scoping Plan Update reflects the SB 100 Core Scenario resource mix with a few minor updates.</p>

Bill/Executive Order	Summary
Assembly Bill 2127 (AB 2127) (Ting, Chapter 365, Statutes of 2018) <i>Electric Vehicle Charging Infrastructure: Assessment</i>	<p>This bill requires the CEC, working with CARB and the CPUC, to prepare and biennially update a statewide assessment of the electric vehicle charging infrastructure needed to support the levels of electric vehicle adoption required for the state to meet its goals of putting at least 5 million zero-emission vehicles on California roads by 2030 and of reducing emissions of GHGs to 40 percent below 1990 levels by 2030. The bill requires the CEC to regularly seek data and input from stakeholders relating to electric vehicle charging infrastructure.</p> <p>This bill supports the deployment of ZEVs as modeled in 2022 Scoping Plan Update.</p>
Senate Bill 30 (SB 30) (Lara, Chapter 614, Statutes of 2018) <i>Insurance: Climate Change</i>	<p>This bill requires the Insurance Commissioner to convene a working group to identify, assess, and recommend risk transfer market mechanisms that, among other things, promote investment in natural infrastructure to reduce the risks of climate change related to catastrophic events, create incentives for investment in natural infrastructure to reduce risks to communities, and provide mitigation incentives for private investment in natural lands to lessen exposure and reduce climate risks to public safety, property, utilities, and infrastructure. The bill requires the policies recommended to address specified questions.</p>
Assembly Bill 2061 (AB 2061) (Frazier, Chapter 580, Statutes of 2018) <i>Near-Zero-Emission and Zero-Emission Vehicles</i>	<p>Existing state and federal law sets specified limits on the total gross weight imposed on the highway by a vehicle with any group of two or more consecutive axles. Under existing federal law, the maximum gross vehicle weight of that vehicle may not exceed 82,000 pounds. AB 2061 authorizes a near-zero- emission vehicle or a zero-emission vehicle to exceed the weight limits on the power unit by up to 2,000 pounds. This bill supports the deployment of cleaner trucks as modeled in this 2022 Scoping Plan Update.</p>

The 2022 Scoping Plan Update identifies the need to accelerate AB32’s 2030 target, from 40 percent to 48 percent below 1990 levels. Cap-and-Trade regulation continues to play a large factor in the reduction of near-term emissions for meeting the 2030 reduction target. Every sector of the economy will need to begin to transition in this decade to meet these GHG reduction goals and achieve carbon neutrality no later than 2045. The 2022 Scoping Plan Update approaches decarbonization from two perspectives, managing a phasedown of existing energy sources and technologies, as well as increasing, developing, and deploying alternative clean energy sources and technology. The Scoping Plan Scenario is summarized in Table 2-1 starting on page 72 of the Scoping Plan (CARB 2022a). It includes references to relevant statutes and Executive Orders, although it is not comprehensive of all existing new authorities for directing or supporting the actions described. Table 2-1 identifies actions related to a variety of sectors such as: smart growth and reductions in Vehicle Miles Traveled (VMT); light-duty vehicles (LDV) and zero-emission vehicles (ZEV); truck ZEVs; reduce fossil energy, emissions, and GHGs for aviation ocean-going vessels, port operations, freight and passenger rail, oil and gas extraction; and petroleum refining; improvements in electricity generation; electrical appliances in new and existing residential and commercial buildings; electrification and emission reductions across industries such as the for food products, construction equipment, chemicals and allied products, pulp and paper, stone/clay/glass/cement, other industrial manufacturing, and agriculture; retiring of combined heat and power facilities; low carbon fuels for transportation, business, and industry; improvements in non-combustion methane emissions, and introduction of low GWP refrigerants.

Achieving the targets described in the 2022 Scoping Plan Update will require continued commitment to and successful implementation of existing policies and programs, and identification of new policy tools and technical solutions to go further, faster. California’s Legislature and state agencies will continue to collaborate to achieve the state’s climate, clean air, equity, and broader economic and environmental protection goals. It will be necessary to maintain and strengthen this collaborative effort, and to draw upon the assistance of the federal government, regional and local governments, tribes, communities, academic institutions, and the private sector to achieve the state’s near-term and longer-term emission

reduction goals and a more equitable future for all Californians. The Scoping Plan acknowledges that the path forward is not dependent on one agency, one state, or even one country. However, the State can lead by engaging Californians and demonstrating how actions at the state, regional, and local levels of governments, as well as action at community and individual levels, can contribute to addressing the challenge.

Appendix D, Local Actions, of the 2022 Scoping Plan Update includes “recommendations intended to build momentum for local government actions that align with the State’s climate goals, with a focus on local GHG reduction strategies (commonly referred to as climate action planning) and approval of new land use development projects, including through environmental review under the California Environmental Quality Act (CEQA).” Appendix D is intended to provide clarification on challenges local jurisdictions face when implementing GHG reduction strategies or approving much-needed housing projects (CARB 2022a).

Aligning local jurisdiction action with state-level priorities to tackle climate change and the outcomes called for in the 2022 Scoping Plan Update is critical to achieving the statutory targets for 2030 and 2045. The 2022 Scoping Plan Update discusses the role of local governments in meeting the State’s GHG reductions goals. Local governments have the primary authority to plan, zone, approve, and permit how and where land is developed to accommodate population growth, economic growth, and the changing needs of their jurisdictions. They also make critical decisions on how and when to deploy transportation infrastructure, and can choose to support transit, walking, bicycling, and neighborhoods that do not force people into cars. Local governments also have the option to adopt building ordinances that exceed statewide building code requirements and play a critical role in facilitating the rollout of ZEV infrastructure. As a result, local government decisions play a critical role in supporting state-level measures to contain the growth of GHG emissions associated with the transportation system and the built environment—the two largest GHG emissions sectors over which local governments have authority. The County has taken the initiative in combating climate change by addressing it in the County’s 2035 General Plan and Los Angeles County 2045 Climate Action Plan.

Regional

South Coast Air Quality Management District

The project site is located in the South Coast Air Basin, which consists of Orange County, Los Angeles County (excluding the Antelope Valley portion), and the western, non-desert portions of San Bernardino and Riverside Counties, in addition to the San Geronio Pass area in Riverside County. The SCAQMD is responsible for air quality planning in the South Coast Air Basin and developing rules and regulations to bring the area into attainment of the ambient air quality standards.

The SCAQMD adopted a “Policy on Global Warming and Stratospheric Ozone Depletion” on April 6, 1990. The policy commits the SCAQMD to consider global impacts in rulemaking and in drafting revisions to the Air Quality Management Plan. In March 1992, the SCAQMD Governing Board reaffirmed this policy and adopted amendments to the policy to include the following directives (SCAQMD 1993):

- Phase out the use and corresponding emissions of chlorofluorocarbons, methyl chloroform (1,1,1-trichloroethane or TCA), carbon tetrachloride, and halons by December 1995;

- Phase out the large quantity use and corresponding emissions of hydrochlorofluorocarbons by the year 2000;
- Develop recycling regulations for hydrochlorofluorocarbons (e.g., SCAQMD Rules 1411 and 1415);
- Develop an emissions inventory and control strategy for methyl bromide; and
- Support the adoption of a California GHG emission reduction goal.

In 2008, SCAQMD released draft guidance regarding interim CEQA GHG significance thresholds (SCAQMD 2008a, 2008b).⁸ Within its October 2008 document, SCAQMD proposed the use of a percent emission reduction target to determine significant for commercial/residential projects that emit greater than 3,000 MTCO₂e per year. Under this proposal, commercial/residential projects that emit fewer than 3,000 MTCO₂e per year would be assumed to have a less-than-significant impact on climate change. The SCAQMD's proposed 3,000 MTCO₂e per year target was developed before 2020 and has never been considered for adoption and, thus, does not apply. On December 5, 2008, the SCAQMD Governing Board adopted the staff proposal for an interim GHG significance threshold of 10,000 MTCO₂e for stationary source/industrial projects where the SCAQMD is the Lead Agency. A GHG Significance Threshold Working Group was formed to further evaluate potential GHG significance thresholds (SCAQMD 2008c). The aforementioned Working Group has been inactive since 2011 and the SCAQMD has never formally adopted any GHG significance threshold for land use development projects.

Local

Los Angeles County 2035 General Plan

Adopted on October 6, 2015, the General Plan's Air Quality Element outlines goals and policies that would reduce GHG emissions and address the impacts of climate change. In addition, the General Plan contains policies that encourage water conservation and protection, traffic reduction, sustainable development, and waste minimization that would further reduce GHG emissions (County of Los Angeles 2015). The following goals and policies would apply to the project:

Goal AQ 3: Implementation of plans and programs to address climate change.

Policy AQ 3.1: Facilitate the implementation and maintenance of the Community Climate Action Plan to ensure that the County reaches its climate change and greenhouse gas emissions reduction goals.

Policy AQ 3.2: Reduce energy consumption in County operations by 20 percent by 2015.

Policy AQ 3.3: Reduce water consumption in County operations.

Policy AQ 3.4: Participate in local, regional, and state programs to reduce greenhouse gas emissions.

Policy AQ 3.5: Encourage energy conservation in new development and municipal operations.

⁸ The performance standards primarily focus on energy efficiency measures beyond Title 24. The SCAQMD adopted a GHG significance threshold of 10,000 MTCO₂e per year for industrial stationary source projects for which the SCAQMD is the lead agency.

Policy AQ 3.6: Support rooftop solar facilities on new and existing buildings.

Policy AQ 3.7: Support and expand urban forest programs within the unincorporated areas.

Policy AQ 3.8: Develop, implement, and maintain countywide climate change adaption strategies to ensure that the community and public services are resilient to climate change impacts.

Unincorporated Los Angeles Community Climate Action Plan

The Unincorporated Los Angeles County Community Climate Action Plan 2020 (2020 CCAP), adopted in 2015, was a component of the General Plan's Air Quality Element with a horizon year of 2020. To reduce impacts of climate change, the 2020 CCAP set a target to reduce GHG emissions from community activities in the unincorporated areas of Los Angeles County by at least 11 percent below 2010 levels by 2020 (County of Los Angeles 2015). The 2020 CCAP contained 26 local actions related to green buildings and energy; land use and transportation; water conservation and wastewater; waste reduction, reuse, and recycling; and land conservation and tree planting. It also included 17 reduction strategies from the following areas: transportation; stationary energy; waste; industrial process and product use; agriculture, forestry, and other land use. However, since the 2020 CCAP is only certified through 2020 and the project is expected to be built out in 2026 the 2020 CCAP was not used in the GHG plan consistency analysis since it is no longer applicable.

2045 Climate Action Plan

The County of Los Angeles released a Revised Draft 2045 Climate Action Plan (CAP) in March 2023⁹ which is an update to the 2020 CCAP and sets new GHG emissions reduction targets for 2030, 2035, and 2045 consistent with state goals, and sets a long-term aspirational goal for carbon neutrality by 2045. The 2045 CAP establishes the following GHG emissions reduction targets:

- By 2030, reduce GHG emissions by 40 percent below 2015 levels.
- By 2035, reduce GHG emissions by 50 percent below 2015 levels.
- By 2045, reduce GHG emissions by 83 percent below 2015 levels, with the aspirational goal of carbon neutrality.

The 2045 CAP also provides a GHG emissions inventory from community-wide activities in unincorporated Los Angeles County for 2018 (5,173,240 MTCO₂e), along with a 2015 baseline inventory (5,351,115 MTCO₂e). Additionally, it provides future emissions projections for 2030, 2035, and 2045.

The 2045 CAP includes 10 strategies and 25 measures, and more than 90 implementing actions that, when combined, put the unincorporated County on the path toward carbon neutrality and are estimated to reduce annual emissions by 1.5 million MTCO₂e in 2030, 2 million MTCO₂e in 2035, and 3 million MTCO₂e in 2045. The five categories for GHG emissions reduction are (1) energy supply, (2) transportation, (3) building energy and water, (4) waste, and (5) agriculture, forestry, and other land uses. Under these categories, there are 10 strategies which are: (1) decarbonize the energy supply, (2) increase densities and diversity of land uses near transit, (3) reduce single occupancy vehicle trips, (4)

⁹ County of Los Angeles, 2022. *Draft 2045 Climate Action Plan*, April. Available: https://planning.lacounty.gov/site/climate/wp-content/uploads/2022/04/LA_County_2045_CAP_Public_Draft_April_2022.pdf. Accessed June 2022.

institutionalize low-carbon transportation, (5) decarbonize buildings, (6) improve efficiency of existing building energy use, (7) conserve water, (8) minimize waste and recover energy and materials from waste stream, (9) conserve forests and working lands, and (10) sequester carbon and implement sustainable agriculture. These 10 categories are further broken down into measures and actions which will achieve the GHG emissions reductions outlined in the Draft 2045 CAP. Five core measures will contribute almost 90 percent of the total GHG reductions expected by 2030. These measures are:

- T6: Increase ZEV Market Share and Reduce Gasoline and Diesel Fuel Sales.
- ES2: Procure Zero-Carbon Electricity.
- E1: Transition Existing Buildings to All-Electric.
- T8: Accelerate Freight Decarbonization.
- W1: Institutionalize Sustainable Waste Systems and Practices.

The 2045 Revised Draft CAP has not yet been approved by the Los Angeles County Board of Supervisors. The hearing is scheduled for April 16, 2024.

OurCounty: Los Angeles Countywide Sustainability Plan

In August 2019, the County adopted the OurCounty Sustainability Plan which contains 12 cross-cutting goals, 37 strategies, and 159 actions and identifies entities and partners which will work together to achieve these goals (LACSO 2019). The OurCounty Sustainability Plan focuses on enhancing the well-being of every community in the County while reducing damage to the natural environment and adapting to the changing climate. The plan is intended to help guide decision-making in unincorporated County areas and to provide a model for decision-making in the 88 incorporated cities in the County. As a strategic plan, the OurCounty Sustainability Plan does not supersede land use plans that have been adopted by the Regional Planning Commission and Board of Supervisors, including the Los Angeles County General Plan.

3.5.3 Impact Analysis and Mitigation Measures

Thresholds of Significance

CEQA Guidelines Appendix G, Environmental Checklist Form, includes questions pertaining to greenhouse gas emissions. The issues presented in the Environmental Checklist have been used as thresholds of significance in this section. Accordingly, the proposed project would have a significant adverse environmental impact if it would:

- Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment (Refer to Impact 3.5-1)
- Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases (Refer to Impact 3.5-2)

CEQA Guidelines Section 15064.4 assists lead agencies in determining the significance of the impacts of GHG emissions and gives them discretion to determine whether to assess emissions quantitatively or qualitatively. If a qualitative and quantification-based approach are used, then Section 15064.4 recommends qualitative factors that may be used in the determination of significance. These factors

include the extent to which the project may increase or reduce GHG emissions compared to the existing environment, whether the project exceeds an applicable significance threshold, and the extent to which the project complies with regulations or requirements adopted to implement a reduction or mitigation of GHGs. CEQA Guidelines Section 15064.4 does not establish a threshold of significance; rather, lead agencies are granted discretion to establish significance thresholds for their respective jurisdictions, including by looking to thresholds developed by other public agencies, or suggested by other experts, such as California Air Pollution Control Officers Association (CAPCOA), so long as any threshold chosen is supported by substantial evidence (CEQA Guidelines § 15064.7[c]). The California Natural Resources Agency has also clarified that the CEQA Guidelines focus on the impacts of GHG emissions as cumulative impacts, and that they should be analyzed in the context of CEQA's requirements for cumulative impact analysis (CNRA 2009; CEQA Guidelines § 15064[h][3]).

The Governor's Office of Planning and Research (OPR) released a Discussion Draft: CEQA and Climate Change Advisory in December 2018 (OPR 2018) to provide updates and regulatory changes to a prior 2008 climate change advisory (OPR 2008). The discussion draft addresses project-level analyses of greenhouse gas impacts and recognizes, "lead agency discretion in determining the appropriate methodologies, thresholds, and if necessary, mitigation measures" (OPR 2018). Furthermore, the discussion draft explains that significance thresholds may be based on efficiency metrics, compliance with state goals and percentage reduction from Business-As-Usual (BAU) emissions, consistency with relevant regulations, plans, policies, and regulatory programs, or an absolute numerical/quantitative threshold (OPR 2018).

Per State CEQA Guidelines Section 15064.4(b), "in determining the significance of a project's greenhouse gas emissions, the lead agency should focus its analysis on the reasonably foreseeable incremental contribution of the project's emissions to the effects of climate change. A project's incremental contribution may be cumulatively considerable even if it appears relatively small compared to statewide, national or global emissions." When determining the significance of GHG impacts, lead agencies should consider the project's impact as compared to the existing environmental setting, whether the project exceeds a threshold of significance, and compliance with relevant GHG-related plans (see, e.g., State CEQA Guidelines Section 15064.4[b]). Regarding the latter criterion, lead agencies should consider "the extent to which the project complies with regulations or requirements adopted to implement a statewide, regional, or local plan for the reduction or mitigation of greenhouse gas emissions (see, e.g., State CEQA Guidelines Section 15183.5[b]). Per State CEQA Guidelines Section 15064.4(b)(3), such requirements must be adopted by the relevant public agency through a public review process and must reduce or mitigate the project's incremental contribution of greenhouse gas emissions.

Los Angeles County has not adopted a significance threshold through a formal process for the analysis of project-level GHG emissions. For the analysis of GHG emission for this project, SCVSD, as the lead agency, has selected to use the proposed SCAQMD interim GHG significance threshold of 3,000 MTCO₂e for residential and commercial projects to evaluate significance for GHG emissions. As a second significance threshold, consistency with the applicable plans and policies to reduce GHG emissions, including the emissions reduction policies, strategies, and measures discussed within CARB's 2022 Climate Change Scoping Plan, SCAG's Connect SoCal, County of Los Angeles General Plan, and the Countywide Sustainability Plan was evaluated. It is not evaluated against the Revised Draft 2045 CAP because it has not been adopted yet.

Methodology

The Climate Action Registry

General Reporting Protocol (GRP) provides procedures and guidelines for calculating and reporting GHG emissions from general and industry-specific activities. Although no numerical thresholds of significance have been adopted, and no specific protocols are available for land use projects, the GRP provides a framework for calculating and reporting GHG emissions from the project. This section provides an estimate of the GHG emissions from project construction and operation using the GRP and CalEEMod Version 2022.1.1.21. The following project-related emission sources have been evaluated:

1. Construction Activities – Fossil fueled on- and off-road vehicles and equipment needed for demolition, grading, building construction, paving, and architectural coating;
2. Direct Emission Sources – Combustion of fossil fuels for lawn care and maintenance activities, and motor vehicles; and
3. Indirect Emission Sources – Off-site electricity generation, wastewater treatment and water conveyance, and solid waste disposal.

CARB believes that consideration of so-called indirect emissions provides a more complete picture of the GHG footprint of a facility: “Annually reported indirect energy usage also aids the conservation awareness of the facility and provides information” to CARB to be considered for future strategies by the industrial sector. For these reasons, CARB has proposed requiring the calculation of direct and indirect GHG emissions as part of the HSC Division 25.5 reporting requirements. Additionally, OPR directs lead agencies to “make a good-faith effort, based on available information, to calculate, model, or estimate...GHG emissions from a project, including the emissions associated with vehicular traffic, energy consumption, water usage and construction activities.” Therefore, direct and indirect emissions have been calculated for the project.

For the purposes of this analysis, operational GHG emissions will remain essentially the same as existing conditions, as the project is just improving already existing infrastructure. However, the project includes construction activities such as grading, hauling, and construction worker trips which will generate GHG emissions. Since potential impacts resulting from GHG emissions are long-term rather than acute, GHG emissions are calculated on an annual basis. The California Emissions Estimator Model (CalEEMod) used for this project outputs GHG emissions of CO₂, CH₄, N₂O, and CO₂e. In order to report total GHG emissions using the CO₂e metric, the GWP ratios corresponding to the warming potential of CO₂ over a 100-year period is used in this analysis.

The GRP provides a range of basic calculation methods. However, they are typically designed for existing buildings or facilities and are not directly applicable to planning and development situations where the buildings or facilities do not yet exist. As a result, this section relies on calculation guidance from state and regional agencies with scientific expertise in quantifying GHG emissions, such as CARB and the SCAQMD. GHG emissions for the project are estimated using the CalEEMod (Version 2022.1.1.21) software. Emissions calculations for the project include credits or reductions for the project’s sustainability features and GHG reducing measures which are required by regulation, such as reductions in energy and water demand. Emissions are then conservatively compared to the screening level threshold of 3,000 MTCO₂e per year that the County has determined is appropriate for this project.

CAPCOA has provided guidance on mitigating or reducing GHG emissions from land use development projects. In December 2021, CAPCOA released the 2021 GHG Handbook which provides GHG reduction values for recommended mitigation measures (CAPCOA 2021). The CAPCOA guidance document was utilized in this analysis for quantifying reductions from physical and operational project characteristics and project sustainability features in CalEEMod.

Construction Emissions

Construction of the proposed project has the potential to generate GHG emissions through the use of heavy-duty construction equipment and through vehicle trips generated from construction workers traveling to and from the project site. Construction emissions can vary from day to day, depending on the level of activity, the specific type of operation, and the prevailing weather conditions. The number and types of construction equipment, vendor trips (e.g., transport of building materials), and worker trips were based on relatively conservative assumptions for a project of this type and scale as provided in the CalEEMod model. The output values used in this analysis were adjusted to be project-specific based on equipment types and the construction schedule. These values were then applied to the same construction phasing assumptions used in the criteria pollutant analysis (see Section 3.1, Air Quality) to generate GHG emissions values for each construction year. A complete listing of the construction equipment by phase and construction phase duration assumptions used in this analysis is included within the CalEEMod printout sheets in Appendix AQ of this Draft EIR.

The CO₂e emissions are calculated for the project construction period. The SCAQMD guidance, Draft Guidance Document – Interim CEQA Greenhouse Gas (GHG) Significance Threshold, recognizes that construction-related GHG emissions from projects “occur over a relatively short-term period of time” and that “they contribute a relatively small portion of the overall lifetime project GHG emissions” (SCAQMD 2008a). The guidance recommends that construction project GHG emissions should be “amortized over a 30- year project lifetime, so that GHG reduction measures will address construction GHG emissions as part of the operational GHG reduction strategies” (SCAQMD 2008a). In accordance with SCAQMD guidance, GHG emissions from construction have been amortized over the 30-year lifetime of the project (i.e., total construction GHG emissions were divided by 30 to determine an annual construction emissions estimate comparable to operational emissions),

Emissions Sources

Construction of the project would result in one-time GHG emissions of CO₂ and smaller amounts of CH₄ from heavy-duty construction equipment. Construction emissions are forecasted by assuming a conservative estimate of construction activities (i.e., assuming all construction occurs at the earliest feasible date) and applying the off-road emissions factors. The output values used in this analysis are adjusted to be project-specific based on equipment types and the construction schedule. GHG emissions values are then calculated for each construction year.

Construction of the project would also contribute to regional GHG emissions from haul trucks, vendor trucks, and worker vehicles. The emissions from mobile sources were calculated using the hauling, vendor, and worker daily trips and trip lengths and emission factors from the CARB on-road vehicle emissions factor (EMFAC2021) model. EMFAC2021 was released in January 2021 and updated in April 2021. Mobile emissions were calculated with CalEEMod version 2022.1.1.21, which includes the latest emission factors from EMFAC2021.

Operational Emissions

The project consists of improvements to two existing discharge outfalls and an existing retaining wall. Thus, the proposed project would not change operational GHG emissions at the VWRP. Therefore, operational emissions are analyzed qualitatively.

Impact Analysis

Greenhouse Gas Emissions

Impact 3.5-1: The proposed project could generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment.

Construction

The emissions of GHGs associated with construction of the underground retaining wall improvements were calculated for each year of construction activity using CalEEMod. Results of the GHG emissions calculations are presented in **Table 3.5-3**. It should be noted that the GHG emissions shown in Table 3.5-3 are based on construction equipment operating continuously throughout the workday. In reality, construction equipment tends to operate periodically or cyclically throughout the workday. Therefore, the GHG emissions shown in Table 3.5-3 reflect a conservative estimate. A complete listing of the equipment by phase, emission factors, and calculation parameters used in this analysis is included within the emissions calculation worksheets that are provided in Appendix AQ of this Draft EIR.

**TABLE 3.5-3
ESTIMATED CONSTRUCTION GREENHOUSE GAS EMISSIONS**

Construction Year	CO ₂ e (Metric Tons per Year) ^{a,b}
2026	618
2027	597
Total Emissions	1,215
Amortized Emissions (30 years)	41

a. Totals may not add up exactly due to rounding in the modeling calculations. Detailed emissions calculations are provided in Appendix AQ.
b. CO₂e emissions are calculated using the global warming potential values from the Intergovernmental Panel on Climate Change Fourth Assessment Report.
c. Consistent with Senate Bill 1020, the proposed general plan buildout would use 100 percent renewable electricity by 2045. In addition, the general plan buildout would not include any natural gas infrastructure.

SOURCE: ESA, 2024

Although GHGs are generated during construction and are accordingly considered one-time emissions, it is important to include them when assessing all of the long-term GHG emissions associated with a project. As such, construction GHG emissions have been amortized over the project's 30 year lifetime in accordance with SCAQMD GHG analysis methodologies, as described above (SCAQMD 2008). Due to the potential persistence of GHGs in the environment, impacts are based on annual emissions and, in accordance with draft SCAQMD methodology, construction-period impacts are not assessed for significance independent of operational-period impacts, which are discussed below.

Operation

The project would result in improvements to an existing retaining wall which would achieve long-term protection of the middle section of the VWRP boundary along the Santa Clara River in case of a future Capital Flood scour event and improvements to two discharge outfalls which would help with the pipe backflow conditions in both outfalls resulting from infiltration by vegetation and roots causing pipe joint separations and soil/debris settlement. The operation of the VWRP would remain similar to existing conditions and the project would not result in the generation of new operational GHG emissions. Thus, the net new operational emissions would only be the amortized GHG emissions from project construction, as discussed above. Projected operational GHG emissions for the project are presented in **Table 3.5-4**.

**TABLE 3.5-4
UNMITIGATED ANNUAL GREENHOUSE GAS EMISSIONS**

Project Emissions Sources	CO₂e (Metric Tons per Year)^{a,b}
Operational Emissions (same as existing)	0
Construction Emissions (amortized over 30 years)	41
Annual Emissions	41
SCAQMD Screening Threshold	3,000
Exceed Threshold?	No
<p>a. Totals may not add up exactly due to rounding in the modeling calculations. Detailed emissions calculations are provided in Appendix AQ.</p> <p>b. CO₂e emissions are calculated using the global warming potential values from the Intergovernmental Panel on Climate Change Fourth Assessment Report.</p> <p>c. Consistent with Senate Bill 1020, the proposed general plan buildout would use 100 percent renewable electricity by 2045. In addition, the general plan buildout would not include any natural gas infrastructure.</p> <p>SOURCE: ESA, 2024</p>	

As shown in Table 3.5-4, project GHG emission would not exceed the SCAQMD Screening Threshold. As such, the project would not generate greenhouse gas emissions, either directly or indirectly, that would have a significant impact on the environment. Therefore, project impacts are less than significant.

Mitigation Measures

None Required

Significance Determination

Less than Significant Impact

Consistency with Applicable GHG Reduction Plans and Policies

Impact 3.5-2: The proposed project could conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases.

Underground Retaining Wall and Outfall Structures

A significant impact would occur if the project would conflict with an applicable plan, policy or regulation adopted for the purpose of reducing GHG emissions. Plans and policies evaluated are CARB's 2022 Climate Change Scoping Plan, SCAG's 2016–2040 RTP/SCS, and Connect SoCal.

CARB's Climate Change Scoping Plan

The CARB 2022 Scoping Plan For Achieving Carbon Neutrality was approved in December 2022 and expands on prior scoping plans and recent legislation, such as AB 1279, by outlining a technologically feasible, cost-effective, and equity-focused path to achieve the state's climate target of reducing anthropogenic GHG emissions to 85 percent below 1990 levels and achieving carbon neutrality by 2045 or sooner (CARB 2022a). To achieve carbon neutrality by 2045, the 2022 Scoping Plan contains GHG emissions reductions, technology, and clean energy mandated by statutes; reduction of short-lived climate pollutants; and mechanical CO₂ capture and sequestration actions.

The 2022 Scoping Plan outlines a framework that relies on a broad array of GHG reduction actions, which include direct regulations, alternative compliance mechanisms, incentives, voluntary actions, and market-based mechanisms, such as the Cap-and-Trade program. The 2022 Scoping Plan builds off of a wide array of regulatory requirements that have been promulgated to reduce Statewide GHG emissions, particularly from energy demand and mobile sources. While these regulatory requirements are not targeted at specific land use development projects, they would indirectly reduce a development project's GHG emissions.

Certain elements of these regulations must be complied with by all projects that develop urban land uses (e.g., commercial, residential, industrial). This category of regulations can be grouped in terms of the GHG sector that benefits from their implementation. With regard to the energy sector, implementation of the California RPS program and SB 100 and SB 350¹⁰, would reduce GHG emissions generated by energy consumption. With regard to the mobile sector, implementation of the Advanced Clean Cars Program, LCFS, and SB 375¹¹ would reduce GHG emissions generated by motor vehicle travel. In addition, ongoing implementation of the Cap-and-Trade Program would reduce GHG emissions from both energy consumption and the fuels used for motor vehicle travel. With regard to the solid waste sector, implementation of the California Integrated Waste Management Act of 1989 and AB 341¹² would reduce GHG emissions generated by solid waste disposal in terms of reduced vehicle trips associated with the transport of solid waste materials as well as landfill emissions. Further, project development would occur in accordance with these regulations and, therefore, would comply with their requirements and would not conflict with the implementation of these regulations. The project would not conflict with applicable 2022 Scoping Plan strategies and regulations to reduce GHG emissions.

SCAG's Connect SoCal

On September 3, 2020, SCAG's Regional Council formally adopted the 2020–2045 RTP/SCS also known as the Connect SoCal, which is an update to the previous 2012–2035 RTP/SCS and 2016–2040 RTP/SCS (SCAG 2020). Using growth forecasts and economic trends, both the 2016–2040 RTP/SCS and 2020–

¹⁰ Senate Bill 350 is the Clean Energy and Pollution Reduction Act, which established clean energy, clean air, and greenhouse gas (GHG) reduction goals, including reducing GHG to 40 percent below 1990 levels by 2030 and to 80 percent below 1990 levels by 2050. SB 350 increases California's renewable electricity procurement goal from 33 percent by 2020 to 50 percent by 2030 (CEC 2024).

¹¹ Senate Bill 375 is the Sustainable Communities and Climate Protection Act, which sets regional targets for GHG reductions from passenger vehicles (CARB 2024c).

¹² California Integrated Waste Management Act initialized all California cities, counties, and approved regional solid waste management agencies to divert at least 50 percent of waste from landfills through recycling, composting, or other means (CalRecycle 2024a). Assembly Bill 341 sets requirements of the statewide mandatory commercial recycling program (CalRecycle 2024b).

2045 RTP/SCS provide a vision for transportation throughout the region for the next several decades by considering the role of transportation in the broader context of economic, environmental, and quality-of-life goals for the future, identifying regional transportation strategies to address mobility needs. Both the 2016–2040 RTP/SCS and 2020–2045 RTP/SCS describe how the region can attain the GHG emission-reduction targets set by CARB by achieving an 8 percent reduction in per capita transportation GHG emissions by 2020 and a 19 percent reduction in per capita transportation emissions by 2035 compared to the 2005 level on a per capita basis (SCAG 2020). Compliance with and implementation of the 2016–2040 RTP/SCS and 2020–2045 RTP/SCS policies and strategies would have co-benefits of reducing vehicle gasoline and diesel fuel consumption associated with reduced per capita vehicle miles traveled (VMT).

The project involves infrastructure improvements to a retaining wall and two discharge outfalls at the VWRP. The project would not require any new employees and would thus not be growth inducing. Therefore, the project would be consistent with the goals of the SCAG’s 2020–2045 RTP/SCS and would not preclude attainment of its primary objectives.

Los Angeles County Sustainability Plan

The Los Angeles Countywide Sustainability Plan (OurCounty Plan) is a regional sustainability plan for Los Angeles that outlines what local governments and stakeholders can do to enhance the well-being of every community in the County while reducing damage to the natural environment and adapting to the changing climate, particularly focusing on those communities that have been disproportionately burdened by environmental pollution (County of Los Angeles 2019). OurCounty includes a total of 12 sustainable goals. Goal 2 of the OurCounty Plan is focused on providing infrastructure that supports human health and resilience. The project will help the VWRP become resilient against climate change by helping the VWRP withstand Capital Flood scour levels. Therefore, the project would be consistent with the OurCounty Plan.

Summary of GHG Reduction Plans, Policies and Regulations

As described above, the project would be consistent with the SCAG Connect SoCal, the OurCounty Plan, and the 2022 Scoping Plan. Therefore, the project would not conflict with any applicable plan, policy or regulation for the purpose of reducing the emissions of GHGs and impacts would be less than significant.

Mitigation Measures

None Required

Significance Determination

Less than Significant Impact

Cumulative Impacts

Impact 3.5-3: Concurrent construction and operation of the proposed project and related projects in the geographic scope could result in cumulative short-term and long-term impacts.

Underground Retaining Wall and Outfall Structures

Climate change is a cumulative effect of all natural and anthropogenic sources of GHGs accumulated on a global scale. The GHG emissions from an individual project would not individually generate sufficient GHG emissions to measurably influence global climate change, and thus the assessment of GHG

emissions impacts is inherently cumulative. Consideration of a project's climate change impact, therefore, is essentially an analysis of a project's contribution to a cumulatively significant global impact through its emission of GHGs.

Future cumulative development near the proposed project identified in Table 3-2 would involve construction and operation of hotel land uses, public infrastructure projects, and facility improvements. Implementation of cumulative development could result in the generation of GHG emissions. Cumulative development could exceed the GHG thresholds and could conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases. There would not be any cumulative impact because analysis of the proposed project considers the potential impacts of Project-related GHG emission and would be consistent with all relevant GHG reduction plans and policies. As such, the project's contribution to the cumulative GHG impact would not be cumulatively considerable, and therefore would be less than significant.

Mitigation Measures

None Required

Significance Determination

Less than Significant Impact

3.5.4 References

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3.6 Hazards and Hazardous Materials

This section describes and evaluates the potential for construction and operation of the proposed project to result in significant impacts related to hazards and hazardous materials. The analysis is based on review of available reports and maps of the project site and vicinity, relevant regulations, and a discussion of the methodology and thresholds used to determine whether the proposed project would result in significant impacts. Issues and impact analysis concerning air quality and air toxics are presented in Section 3.1, *Air Quality*. Issues and impact analysis concerning noise are presented in Section 3.8, *Noise*.

3.6.1 Environmental Setting

The study area for evaluation of hazards and hazardous materials impacts includes the proposed project site and the immediate adjacent area. In addition, a radius of up to 0.25 miles from the project site is considered relative to proximity to schools, and a radius of up to 2 miles is similarly considered relative to proximity to airports, both in accordance with the CEQA Guidelines. However, the analysis focuses on the project site and the immediate adjacent area. Sites beyond the immediately adjacent area would have a remote chance of affecting the project site since releases of hazardous materials tend to be localized.

Definitions of Hazardous Materials

A hazardous material is defined as any material that, because of quantity, concentration, or physical or chemical characteristics, poses a significant present or potential hazard to human health and safety or to the environment if released into the workplace or the environment (California Health and Safety Code Chapter 6.95, Section 25501(n)). The term “hazardous materials” refers to both hazardous substances and hazardous wastes. Under federal and State laws, any material, including wastes, may be considered hazardous if it is specifically listed by statute as such or if it is toxic (causes adverse human health effects), ignitable (has the ability to burn), corrosive (causes severe burns or damage to materials), or reactive (causes explosions or generates toxic gases).

Hazardous wastes are hazardous substances that no longer have practical use, such as materials that have been spent, discarded, discharged, spilled, contaminated, or are being stored until they can be disposed of properly (Title 22 California Code of Regulations [CCR] Section 66261.10). Soil that is excavated from a site containing hazardous materials is a hazardous waste if it exceeds specific criteria established in Sections 66261.20 through 66261.24 of the CCR Title 22. Hazardous substances are regulated by multiple agencies, as described in the Regulatory Framework below, and cleanup requirements of hazardous material releases are determined on a case-by-case basis according to the regulatory agency (e.g., Department of Toxic Substances Control [DTSC] or Regional Water Quality Control Board [RWQCB]) with lead jurisdiction over a contaminated site.

Existing Onsite Hazardous Materials

As discussed in Section 2.4, *Project Description*, the proposed project would construct and upgrade the retaining wall and outfall structures. Materials that would be removed would consist of concrete and soil, neither of which would be considered hazardous materials. Excess materials would be recycled at facilities permitted to accept the recycled materials or disposed of at any non-hazardous waste landfill.

Hazardous Materials Sites on Government Code Section 65962.5

The project site is not listed on the Government Code Section 65962.5 list of hazardous materials sites. The only nearby hazardous materials site is the Valencia Chevron, listed as a former leaking underground storage tank (UST) site, and located about 900 feet west northwest of the project site. Three gasoline USTs and one diesel UST replaced previous USTs at this fuel station in 1994 (Apex 2017). The site was investigated for fuel leakage to soil and groundwater from 2011 to 2016. Residual levels of fuel were detected in soil and groundwater. However, the extent was limited to the fuel station site and the concentrations were below regulatory action levels. Consequently, the RWQCB, the overseeing regulatory agency, issued a case closure determination in 2018 (RWQCB 2018). The RWQCB concluded that the residual fuel concentrations were decreasing, were limited to the fuel station site, and do not pose a risk to people or the environment.

Proximity to Schools

There are no schools located within 0.25 mile of the project site. The nearest schools are the Oak Hills Elementary School located at 26730 Old Rock Road, approximately 1.5 miles south of the project site and Legacy Christian Academy located at 27680 Dickason Drive, approximately 1.75 miles east northeast of the project site.

Proximity to Airports

There are no airports located within 2 miles of the project site. The nearest airport is the Whiteman Airport located at 12653 Osborne Street in Pacoima, approximately 16 miles southeast of the project site.

Wildland Fire

A wildland fire is any non-structure fire that occurs in vegetation or natural fuels. The project site would be located adjacent to the existing VWRP. However, according to the California Department of Forestry and Fire Protection (CAL FIRE) Fire Hazard Severity Zone Maps of the local area, the VWRP area is designated as a very high fire hazard severity area (CAL FIRE 2024). This designation is considered a regional designation. The VWRP is entirely developed with hardscape with minimal vegetation. The CAL FIRE maps designate a strip of the riverbed to the west of the VWRP as a moderate fire hazard severity zone (CAL FIRE 2024).

3.6.2 Regulatory Framework

Federal

The primary federal agencies with responsibility for hazards and hazardous materials management include the US Environmental Protection Agency (US EPA), US Department of Labor Occupational Safety and Health Administration (Fed/OSHA), and the US Department of Transportation (DOT). Federal laws, regulations, and responsible agencies are summarized in **Table 3.6-1**.

**TABLE 3.6-1
FEDERAL LAWS AND REGULATIONS RELATED TO HAZARDOUS MATERIALS MANAGEMENT**

Classification	Federal Law or Responsible Federal Agency	Description
Hazardous Waste Handling	Resource Conservation and Recovery Act of 1976 (RCRA)	Under RCRA, the US EPA regulates the generation, transportation, treatment, storage, and disposal of hazardous waste from “cradle to grave.”
	Hazardous and Solid Waste Act	Amended RCRA in 1984, affirming and extending the “cradle to grave” system of regulating hazardous wastes. The amendments specifically prohibit the use of certain techniques for the disposal of some hazardous wastes.
	Toxic Substances Control Act (TSCA)	Code of Federal Regulations Title 40 Chapter 1, Subchapter R – Toxic Substances Control Act.
Hazardous Materials Management	Community Right-to-Know Act of 1986 (also known as Title III of the Superfund Amendments and Reauthorization Act (SARA))	Imposes requirements to ensure that hazardous materials are properly handled, used, stored, and disposed of and to prevent or mitigate injury to human health or the environment in the event that such materials are accidentally released.
Hazardous Materials Transportation	US Department of Transportation (DOT)	DOT has the regulatory responsibility for the safe transportation of hazardous materials. The DOT regulations govern all means of transportation except packages shipped by mail (49 CFR).
Occupational Safety	Occupational Safety and Health Act of 1970	Fed/OSHA sets standards for safe workplaces and work practices, including the reporting of accidents and occupational injuries (29 CFR).
Structural and Building Components (Hazardous Building Materials [ACM, LBP, and PCBs])	Toxic Substances Control Act	Regulates the use and management of hazardous building materials, and sets forth detailed safeguards to be followed during the disposal of such items.
	US EPA	The US EPA monitors and regulates hazardous materials used in structural and building components and their effects on human health.

State

The primary State agencies with responsibility for hazardous materials management in the region include the DTSC and the RWQCB within the California Environmental Protection Agency (Cal EPA), California Occupational Safety and Health Administration (Cal/OSHA), California Department of Health Services (CDHS), California Highway Patrol (CHP), and the California Department of Transportation (Caltrans). State laws, regulations, and responsible agencies are summarized in **Table 3.6-2**.

**TABLE 3.6-2
STATE LAWS AND REGULATIONS RELATED TO HAZARDOUS MATERIALS MANAGEMENT**

Classification	Law or Responsible State Agency	Description
Hazardous Materials Management	Unified Hazardous Waste and Hazardous Materials Management Regulatory Program (Unified Program); CUPA (Health and Safety Code Sections 25404 et seq)	Cal EPA adopted regulations in January 1996 that implemented the Unified Program at the local level. The agency responsible for implementation of the Unified Program is called the Certified Unified Program Agency (CUPA), which for Los Angeles County is the Los Angeles County Fire Department (LACFD).
	California Fire Code, Title 24, Chapter 9, California Code of Regulations and California Building Code, Part 2	The California Fire Code regulates the storage and handling of hazardous materials, including the requirement for secondary containment, separation of incompatible materials, and preparation of spill response procedures.

Classification	Law or Responsible State Agency	Description
Hazardous Waste Handling	California Hazardous Materials Release Response Plan and Inventory Law of 1985; CUPA	The California Hazardous Materials Release Response Plan and Inventory Law of 1985 (Business Plan Act) requires that businesses that store hazardous materials onsite prepare a Hazardous Materials Business Plan (HMBP) and submit it to the local CUPA, which in this case is the LACFD.
	California Hazardous Waste Control Act; California Health and Safety Code, Division 20, Chapter 6.5, Article 2, Section 25100, et seq.; DTSC	Under the California Hazardous Waste Control Act, DTSC regulates the generation, transportation, treatment, storage, and disposal of hazardous waste in California. The hazardous waste regulations establish criteria for identifying, packaging, and labeling hazardous wastes; dictate the management of hazardous waste; establish permit requirements for hazardous waste treatment, storage, disposal, and transportation; and identify hazardous wastes that cannot be disposed of in landfills. DTSC is also the administering agency for the California Hazardous Substance Account Act. California Health and Safety Code, Division 20, Chapter 6.8, Sections 25300 et seq., also known as the State Superfund law, providing for the investigation and remediation of hazardous substances pursuant to State law.
Hazardous Materials Transportation	Titles 13, 22, and 26 of the California Code of Regulations	Regulates the transportation of hazardous waste originating in and passing through the state, including requirements for shipping, containers, and labeling.
	CHP and Caltrans, California Vehicle Code, Chapter 5, Sections 31303 - 31309	These two state agencies are primary responsibility for enforcing federal and state regulations and responding to hazardous materials transportation emergencies.
Occupational Safety	Cal/OSHA regulations (Title 8 CCR)	Cal/OSHA has primary responsibility for developing and enforcing workplace safety regulations in California. Because California has a federally approved OSHA program, it is required to adopt regulations that are at least as stringent as those found in Title 29 of the Code of Federal Regulations (CFR). Cal/OSHA standards are generally more stringent than federal regulations. Requires employee safety training, safety equipment, accident and illness prevention programs, hazardous substance exposure warnings, and emergency action and fire prevention plan preparation.
Construction Storm Water General Permit (Construction General Permit; Order 2022-0057-DWQ, NPDES No. CAS000002)	RWQCB	Dischargers whose project disturbs one or more acres of soil or where projects disturb less than one acre but are part of a larger common plan of development that in total disturbs one or more acres, are required to obtain coverage under the <i>NPDES General Permit for Stormwater Discharges Associated with Construction and Land Disturbance Activities</i> (Construction General Permit; Order 2022-0057-DWQ, NPDES No. CAS000002). Construction activity subject to this permit includes clearing, grading, grubbing, and other disturbances to the ground such as excavation and stockpiling but does not include regular maintenance activities performed to restore the original line, grade, or capacity of a facility. The Construction General Permit requires the development and implementation of a Stormwater Pollution Prevention Plan (SWPPP) that includes specific Best Management Practices (BMPs) designed to prevent sediment and pollutants from contacting stormwater from moving offsite into receiving waters. The BMPs fall into several categories, including erosion control, sediment control, waste management and good housekeeping, and are intended to protect surface water quality by preventing the off-site migration of eroded soil and construction-related pollutants from the construction area.

Local

Los Angeles County Unified Hazardous Waste and Hazardous Materials Management Regulatory Program

The Unified Hazardous Waste and Hazardous Materials Management Regulatory Program (Unified Program), codified in California Health and Safety Code Sections 25404 et seq., requires the administrative consolidation of six hazardous materials and waste programs under one agency, a Certified Unified Program Agency (CUPA). The following programs are consolidated under the unified program:

- Hazardous Materials Release Response Plans, and Inventory (also referred to as Hazardous Materials Business Plans)
- California Accidental Release Program
- Underground Storage Tanks
- Aboveground Petroleum Storage Spill Prevention Control and Countermeasures
- Hazardous Waste Generation and Onsite Treatment
- Uniform Fire Code Plans and Inventory Requirements

The State Secretary for Environmental Protection designated the LACFD as the local CUPA. The CUPA is charged with the responsibility of conducting compliance inspections of over hazardous materials facilities in Los Angeles County. These facilities and businesses handle hazardous materials, generate or treat a hazardous waste, and/or operate underground storage tanks. The CUPA uses education and enforcement to minimize the risk of chemical exposure to human health and the environment. The CUPA forwards important facility information to local fire prevention agencies that enables them to take appropriate protective action in the event of an emergency at regulated facilities. In order to legally store and use hazardous materials above the trigger quantities, users must apply for permits and demonstrate satisfactory compliance with regulations. The quantities that trigger disclosure are based on the maximum quantity on site at any time:

- 55 gallons, 500 pounds, or 200 cubic feet for 30 days or more at any time in the course of a year
- Any amount of hazardous waste
- Category I or II pesticides
- Explosives
- Extremely hazardous substances above the threshold planning quantity

Los Angeles County 2035 General Plan

Local jurisdictions, such as the County, have the authority and responsibility to regulate hazards and the storage, use, and disposal of hazardous materials through their policy power and decision-making authority. The Los Angeles County General Plan 2035 provides the fundamental basis for the County's hazards and hazardous materials policy, and represents the basic community values, ideals, and aspirations to govern a shared environment through 2035 (LA County 2022a and 2022b). The General Plan addresses all aspects of development including public health, land use, community character, transportation, economics, housing, air quality, and other topics. The General Plan sets forth objectives,

policies, standards, and programs for land use and new development, circulation and public access, and service systems for the Los Angeles County as a whole.

The applicable measures of the Los Angeles County General Plan Safety Element are specified below as being the most current standards.

Goal S 4: An effective regulatory system that prevents or minimizes personal injury, loss of life, and property damage due to fire hazards.

Policy S 4.4: Reduce the risk of wildland fire hazards through meeting minimum State and local regulations for fire-resistant building materials, vegetation management, fuel modification, and other fire hazard reduction programs.

Policy S 4.7: Discourage building mid-slope, on ridgelines and on hilltops, and employ adequate setbacks on and below slopes to reduce risk from wildfires and post-fire, rainfall-induced landslides and debris flows.

Policy S 4.8: Support the retrofitting of existing structures in FHSZs to meet current safety regulations, such as the building and fire code, to help reduce the risk of structural and human loss due to wildfire.

The applicable measures of the Los Angeles County General Plan Public Services and Facilities Element are specified below as being the most current standards.

Goal PS/F 4: Reliable sewer and urban runoff conveyance treatment systems.

Policy PS/F 4.2: Support capital improvement plans to improve aging and deficient wastewater systems, particularly in areas where the General Plan encourages development, such as TODs.

Policy PS/F 4.3: Ensure the proper design of sewage treatment and disposal facilities, especially in landslide, hillside, and other hazard areas.

Goal PS/F 5: Adequate disposal capacity and minimal waste and pollution.

Policy PS/F 5.5: Reduce the County's waste stream by minimizing waste generation and enhancing diversion.

Policy PS/F 5.7: Encourage the recycling of construction and demolition debris generated by public and private projects.

3.6.3 Impact Analysis and Mitigation Measures

Thresholds of Significance

CEQA Guidelines Appendix G, Environmental Checklist Form, includes questions pertaining to hazards and hazardous materials. The issues presented in the Environmental Checklist have been used as thresholds of significance in this section. Accordingly, the proposed project would have a significant adverse environmental impact if it would:

- Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials. (Refer to Impact 3.6-1)

- 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. (Refer to Impact 3.6-1)
- Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan. (Refer to Impact 3.6-2)
- Expose people or structures, either directly or indirectly, to a significant risk of loss, injury, or death involving wildland fires. (Refer to Impact 3.6-3)
- Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school. (Refer to Section, *Impacts Found to be Less than Significant*, below)
- Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment. (Refer to Section, *Impacts Found to be Less than Significant*, below)
- 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. (Refer to Section, *Impacts Found to be Less than Significant*, below)

Methodology

This environmental analysis of the potential impacts related to hazards and hazardous materials from the construction and operation of the proposed project is based on a review of the results of the site-specific investigations, a review of literature and database research, and the County of Los Angeles General Plan; information regarding proposed project construction details; and the description potential uses and associated operations at the project site under the proposed project.

The proposed project would be regulated by the various laws, regulations, and policies summarized above in Section 3.6.2, *Regulatory Framework*. Compliance by the proposed project with applicable federal, state, and local laws and regulations is assumed in this analysis and local and state agencies would be expected to continue to enforce applicable requirements to the extent that they do so now. Note that compliance with many of the regulations would be a condition of permit approval.

A significant impact would occur if, after considering the features described in Section 2, *Project Description*, and the required compliance with regulatory requirements, a significant impact would still occur. For those impacts considered to be significant, mitigation measures are proposed to reduce the identified impacts.

Effects Found Not to Be Significant

Based on the project site characteristics and location, the Initial Study prepared for the proposed project, and attached as Appendix A, determine that the following thresholds would result in no impact or less than significant impacts as described below:

- ***Hazardous materials in proximity to schools:*** There are no schools located within 0.25 mile of the project site. As discussed in Section 3.6.1, *Environmental Setting*, the nearest school is the Oak Hills Elementary School located at 26730 Old Rock Road, approximately 1.5 miles south of the project site. Therefore, there would be no impact relative to the proposed project emitting hazardous emission

handling hazardous or acutely hazardous materials, substances or waste within one-quarter mile of a school, and this topic will not be evaluated further in this section.

- ***Hazardous materials in proximity to airports:*** There are no airports located within 2 miles of the project site. As discussed in Section 3.6.1, *Environmental Setting*, the nearest airport is the Whiteman Airport located at 12653 Osborne Street in Pacoima, approximately 16 miles southeast of the project site. Therefore, there would be no impact relative to being located within 2 miles of an airport, and this topic will not be evaluated further in this section.
- ***Location on a hazardous materials release site:*** As discussed in Section 3.6.1, *Environmental Setting*, the project site is not located on a hazardous materials release site. Therefore, there would be no impact relative to the proposed project being located on a hazardous materials release site and this topic will not be evaluated further in this section.

Impact Analysis

Routine Use or Accidental Release

Impacts 3.6-1: The proposed project could create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials, or through the reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment.

Underground Retaining Wall and Outfall Structures

Construction

During the construction phase, construction equipment and materials would include fuels, oils and lubricants, solvents and cleaners, cements and adhesives, paints and thinners, degreasers, cement and concrete, and asphalt mixtures, which are all commonly used in construction. The routine use or an accidental spill of hazardous materials could result in inadvertent releases, which could adversely affect construction workers, the public, and the environment.

Construction activities would be required to comply with numerous hazardous materials regulations designed to ensure that hazardous materials are transported, used, stored, and disposed of in a safe manner to protect worker safety, and to reduce the potential for a release of construction-related fuels or other hazardous materials into the environment, including stormwater and downstream receiving water bodies. Contractors would be required to prepare and implement Hazardous Materials Business Plans (HMBPs) that would require that hazardous materials used for construction would be used properly and stored in appropriate containers with secondary containment to contain a potential release. The California Fire Code would also require measures for the safe storage and handling of hazardous materials.

As discussed in Section 3.6.2, *Regulatory Framework*, construction contractors would be required to prepare a Stormwater Pollution Prevention Plan (SWPPP) for construction activities according to the National Pollutant Discharge Elimination System (NPDES) General Construction Permit requirements. The SWPPP would list the hazardous materials (including petroleum products) proposed for use during construction; describe spill prevention measures, equipment inspections, equipment and fuel storage; protocols for responding immediately to spills; and describe BMPs for controlling site runoff. Construction equipment would be temporarily staged on the riverside of the existing retaining wall and/or within the VWRP, and equipment fueling would occur in the work area.

In addition, the transportation of hazardous materials would be regulated by the DOT, Caltrans, and the CHP. Together, federal and state agencies determine driver-training requirements, load labeling procedures, and container specifications designed to minimize the risk of accidental release.

Finally, in the event of a spill that releases hazardous materials at the project site, a coordinated response would occur at the federal, state, and local levels, including the LACFD, which is the local hazardous materials response team. In the event of a hazardous materials spill, the LACFD and police departments would be simultaneously notified and sent to the scene to respond and assess the situation.

The required compliance with the numerous laws and regulations discussed above that govern the transportation, use, handling, and disposal of hazardous materials would limit the potential for creation of hazardous conditions due to the use or accidental release of hazardous materials and would render this impact less than significant.

Operations

Once constructed, the underground retaining wall and outfall structures would not use or store hazardous materials or chemicals. Given that no hazardous materials or chemicals would be used, there would be no impact.

Mitigation Measures

None Required

Significance Determination

Less than Significant Impact

Emergency Response Plan or Emergency Evacuation Plan

Impact 3.6-2: The proposed project could impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan.

Underground Retaining Wall and Outfall Structures

Construction

The project site is located in a developed area that is well served by a roadway network. The proposed project would not include changes to adjacent roadways or other access points to the project site. As discussed in Section 3.9, *Transportation*, the proposed project would include a new access area around the existing outlet structures. The proposed project would not include changes to adjacent roadways or other access points to the project site. On average, there would be approximately 6 hauling trucks, 4 vendor truck trips, and 20 worker vehicle trips per day during the underground retaining wall/outfall structure construction phase. These trips would be temporary, occurring only during the 20-month construction phase. In addition, the construction work would occur adjacent to the existing VWRP, and would not impact existing roadways. Therefore, the implementation of the proposed project would not result in inadequate emergency access. Impacts would be less than significant.

Operations

Project construction is not expected to substantially increase the level of ongoing operations and maintenance activities associated with the VWRP. Once constructed, the underground retaining wall improvements and outfall structures would not result in inadequate emergency access, resulting in no impact.

Mitigation Measures

None Required

Significance Determination

Less than Significant Impact

Wildland Fires

Impact 3.6-3: The proposed project could expose people or structures, either directly or indirectly, to a significant risk of loss, injury, or death involving wildland fires.

Underground Retaining Wall and Outfall Structures

Construction

As discussed in Section 3.11, *Wildfire*, the proposed project and surrounding areas are designated as an area of high wildfire risk due to the presence of vegetated slopes and occurrences of high winds. During construction of the underground retaining wall and outfall structures, there would be increased human activity and ignition sources, including equipment that could create sparks, be a source of heat, or leak flammable materials on the project site. The proposed project is not a residential project or commercial business project that would potentially expose a substantial number of occupants to pollutants from fire, nor does it include any habitable structures. Project occupants would be limited to facility staff who work at the VWRP facility and construction workers for the project. The risks related to wildfire that could expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire, would only occur during construction. Therefore, these risks would be temporary.

Construction of the underground retaining wall improvements and outfall structures would require equipment, some of which would be powered equipment (e.g., excavators). Construction staging areas would be identified by the contractor for laydown and soil stockpiling within the VWRP and along the project impact areas, if needed. Equipment and vehicle staging would be determined prior to construction and would be placed within the VWRP facility.

While the VWRP facilities would comply with all applicable fire codes and provide project design features for fire suppression, the project area is located in an area of high wildfire risk, as statutorily designated by CAL FIRE, and additional measures are warranted to mitigate the potential for wildfire. Therefore, with implementation of Mitigation Measures WF-1 and WF-2 incorporating additional fire prevention measures and red flag warning restrictions, impacts related to exposure of significant fire risks would be less than significant.

Operations

Once constructed, the underground retaining wall improvements and outfall structures would not include new operational activities that could provide ignition sources and wildfires, resulting in no impact.

Mitigation Measures

Implement Mitigation Measures **WF-1** and **WF-2** (Refer to Section 3.11, *Wildfire*)

Significance Determination

Less than Significant with Mitigation

Cumulative Impacts

Impact 3.6-4: Concurrent construction and operation of the proposed project and related projects in the geographic scope could result in cumulative short-term and long-term impacts.

This section presents an analysis of the cumulative effects of the project in combination with other past, present, and reasonably foreseeable future projects that could cause cumulatively considerable impacts. Significant cumulative impacts related to hazards and hazardous materials could occur if the incremental impacts of the project combined with the incremental impacts of one or more of the cumulative projects. The cumulative projects considered in this EIR are summarized in Chapter 3, *Environmental Setting, Impact Analysis, and Mitigation Measures*, under *Cumulative Impact Analysis*. Future cumulative developments near the proposed project are identified in Table 3-2, and would involve construction and operation of hotel land uses, public infrastructure projects, and facility improvements.

As previously discussed, the project site is not located within 0.25 miles of a school, 2 miles of an airport, or on a listed hazardous materials release site. Accordingly, the proposed project would not contribute to cumulative impacts related to these topics are not discussed further.

The geographic area affected by the project and its potential to contribute to cumulative impacts varies based on the environmental resource under consideration. The geographic scope of analysis for cumulative hazards and hazardous materials impacts encompasses and is limited to the project site and its immediately adjacent area. This is because impacts relative to hazards and hazardous materials are generally site-specific and depend on the nature and extent of the hazardous materials release, and existing and future soil and groundwater conditions. For example, hazardous materials incidents tend to be limited to a smaller and more localized area surrounding the immediate spill location and extent of the release and could only be cumulative if two or more hazardous materials releases spatially overlapped.

The timeframe during which the project could contribute to cumulative hazards and hazardous materials effects includes the construction and operations phases. For the project, the operations phase is permanent. However, similar to the geographic limitations discussed above, it should be noted that impacts relative to hazardous materials are generally time-specific. Hazardous materials events could only be cumulative if two or more hazardous materials releases occurred at the same time, as well as overlapping at the same location.

Cumulative Impacts during Project Construction

Significant cumulative impacts related to hazards and hazardous materials could occur if the incremental impacts of the project combined with the incremental impacts of one or more of the related cumulative projects listed above to substantially increase risk that people or the environment would be exposed to hazardous materials. As listed, there are no cumulative projects under consideration adjacent to the project site.

The construction activities for all related cumulative projects would be subject to the same regulatory requirements discussed for the project for compliance with existing hazardous materials regulations, including spill response during construction and being located on sites with residual contamination from previous land uses. Related cumulative projects that have spills of hazardous materials and/or residual contamination from previous land uses would be required to remediate their respective sites to the same

established regulatory standards as the project. This would be the case regardless of the number, frequency, or size of the release(s). The responsible party associated with each spill would be required to remediate site conditions to the same established regulatory standards. The residual less-than-significant effects of the project that would remain after mitigation would not combine with the potential residual effects of related cumulative projects to cause a potential significant cumulative impact because residual impacts would be highly site-specific, would not spatially overlap, and would be below regulatory standards. Accordingly, no significant cumulative impact with respect to the use of hazardous materials would result. For the above reasons, the project in combination with cumulative projects would not cause or contribute to a cumulatively considerable impact with respect to the use of hazardous materials, and impacts would be less than significant.

Construction for two or more projects that occur at the same time and use the same roads could cause interference with emergency access. However, all construction sites that could cause lane closures would be required to apply for an Encroachment Permit, which would require the preparation and implementation of a Traffic Control Plan that would manage the movement of vehicles to maintain traffic flow and prevent interference with emergency access. As previously discussed, the proposed project would not require lane closures or restrictions, and therefore would not require an encroachment permit. Any related cumulative project that would require lane closures or restrictions would be required to prepare and implement a Traffic Control Plan to ensure emergency vehicles can pass through their work areas. With the implementation of Traffic Control Plans, the project in combination with related cumulative projects would not cause or contribute to a cumulatively significant impact with respect to emergency access, and impacts would be less than significant.

As discussed in Impact 3.6-2, the proposed project would be required to implement Mitigation Measures WF-1: *Fire Prevention Measures*, and WF-2: *Red Flag Warnings*, to reduce impacts from potential wildfires to less than significant with mitigation. Similarly, related cumulative projects would also be required to implement wildfire mitigation measures if located in fire hazard severity zones. With the implementation of wildfire mitigation measures, the proposed project in combination with related cumulative projects would not cause or contribute to a cumulatively significant impact with respect to wildfires, and impacts would be less than significant.

Cumulative Impacts during Project Operations

As discussed in Impacts 3.6-1 and 3.6-2, the proposed project would have no impacts during operations. Accordingly, the proposed project would not contribute to cumulative impacts related to operations and these topics are not discussed further.

Mitigation Measures

None Required

Significance Determination

Less than Significant Impact

3.6.4 References

Apex. 2017. *First Semi-Annual 2017 Groundwater Monitoring and Sampling Report, Valencia Chevron, 28070 The Old Road, Santa Clarita, California*. July 21

California Department of Forestry and Fire Protection (CAL FIRE). 2024. *Fire Hazard Severity Zone Viewer*.

Los Angeles County Planning Department (LA County). 2022a. *Los Angeles County 2035 General Plan, Safety Element*.

LA County. 2022b. *Los Angeles County 2035 General Plan, Public Services and Facilities Element*.

Los Angeles Regional Water Quality Control Board (RWQCB). 2018. *Underground Storage Tank Low Risk Case Review*. August 23.

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3.7 Hydrology and Water Quality

This section addresses the hydrology and water quality impacts associated with implementation of the proposed project. This section includes: a description of the existing hydrology and water quality conditions in and around the proposed project site; a summary of applicable regulations related to hydrology and water quality; and an evaluation of the potential impacts of the proposed project related to hydrology and water quality at the proposed project site and in the surrounding area, including cumulative impacts.

3.7.1 Environmental Setting

Surface Hydrology and Drainage

The project site is located in the Salt Canyon – Santa Clara River Hydrologic Unit HUC 12-180701020403 (USGS 2024). The Santa Clara River drains this hydrologic unit and flows west to drain into the Pacific Ocean about 40 miles west of the project site. As shown on Figure 2-1, the river flows along the southwest side of the project site. As discussed in Chapter 2, *Project Description*, scour under flood conditions risks undermining the retaining wall and damaging the VWRP.

Most stormwater that falls on the VWRP is collected by the stormwater system and routed into the treatment works. During a small storm, stormwater that falls on the VWRP is collected into the VWRP's stormwater system, gets routed into the treatment process and treated to tertiary levels, and is then discharged into the Santa Clara River via Discharge Outfall 001. During a large storm event, stormwater is also initially routed and treated as described above; however, depending on the intensity of the storm, stormwater may eventually overflow the stormwater system and discharge directly into the Santa Clara River via Discharge Outfall 002 to prevent overwhelming the VWRP's treatment process. Discharge Outfall 002 can also be used to discharge treated water when needed to maintain proper VWRP operations. The VWRP treats sewage, along with captured stormwater, to tertiary levels and discharges the tertiary treated water into the Santa Clara River through two outfalls. The VWRP is permitted to discharge up to 21.6 million gallons per day (Apex 2017).

Surface Water Quality

The reach of the Santa Clara River along the VWRP is identified as Santa Clara River Reach 5 and is listed as an impaired water body on the 303(d) list of impaired water bodies (SWRCB 2018). The reach is listed as impaired for chloride, indicator bacteria, iron, and trash.

Groundwater

Groundwater occurs in two primary aquifer storage systems, the alluvium associated with the Santa Clara River and its tributaries, and the underlying Saugus Formation (Apex 2017). Regional groundwater flow is generally toward the west, through a series of alluvial basins, toward the Santa Clara River outlet to the Pacific Ocean in western Ventura County. Drilling activities associated with the Valencia Chevron Station, located just east of the VWRP, encountered groundwater at depths ranging from 29.13 to 30.50 feet below the tops of well casings.

The project site is located within Groundwater Basin 4-004.07, Santa Clara River Valley East (GSI et al 2022). As part of the implementation of the Sustainable Groundwater Management Act (SGMA), the basin was ranked as a high-priority basin under the 2014 California Statewide Groundwater Elevation Monitoring basin prioritization process. The Basin is therefore subject to the requirements of SGMA. The Santa Clarita Valley Groundwater Sustainability Agency (SCVGSA) prepared the Groundwater Sustainability Plan (GSP) for this basin to establish actions to sustainably manage groundwater supplies.

Flooding

Flooding is inundation of normally dry land as a result of a rise in surface water levels or rapid accumulation of stormwater runoff during storm events. The Federal Emergency Management Agency (FEMA), through its Flood Insurance Rate Mapping (FIRM) program, designates areas where urban flooding could occur during 100-year and 500-year flood events. A 100-year flood event has a one-percent probability of occurring in a single year. 100-year floods can occur in consecutive years or periodically throughout a decade. A 500-year flood event has a 0.2 percent probability of occurring in a single year. Although the Santa Clara River is located adjacent to the project site, the southwestern site boundary is not located within an area mapped as a flood hazard area on FEMA's Flood Insurance Rate Map or the LA County DPW Floodway Map (FEMA 2023). As a result, the project site would not be at risk from 100-year and 500-year flood hazards.

Tsunami and Seiche Hazards

Tsunamis are a series of waves generated by vertical movement of the sea floor, normally associated with earthquakes or volcanic eruptions. The project site is located approximately 55 miles east of the Pacific Ocean and is not located in a tsunami hazard area.

Seiches are oscillations of enclosed or semi-enclosed bodies of water that result from seismic events, wind stress, volcanic eruptions, underwater landslides, and local basin reflections of tsunamis. The key requirement for the formation of a seiche is that a body of water be at least partially bounded, allowing for a standing wave to form. The project site is not located near a body of water, and therefore is not at risk from seiches.

3.7.2 Regulatory Framework

Federal

Federal Clean Water Act

The Clean Water Act of 1977 is implemented by the U.S. Environmental Protection Agency (USEPA) to restore and maintain the chemical, physical, and biological integrity to the nation's waters by implementing water quality regulations. The Clean Water Act provides the legal framework for various water quality regulations including the National Pollutant Discharge and Elimination System (NPDES), water quality standards, anti-degradation policy, non-point source discharge programs, and wetlands protection, among others. The USEPA has delegated responsibility for implementation of portions of the Clean Water Act, including water quality control planning and programs in California, to the State Water Resources Control Board (state board) and the nine regional boards. Water quality standards applicable on and near the project site are listed in the Water Quality Control Plan for the Los Angeles Region (Basin Plan), as discussed further below.

National Pollutant Discharge Elimination System (NPDES) Permit

The NPDES permit system was established in the CWA to regulate municipal and industrial point discharges to surface waters of the U.S. Each NPDES permit for point discharges contains limits on allowable concentrations of pollutants contained in discharges. Section 402 of the CWA contains general requirements regarding NPDES permits.

The CWA was amended in 1987 to require NPDES permits for non-point source (i.e., stormwater) pollutants in discharges. Stormwater sources are diffuse and originate over a wide area rather than from a definable point. The goal of NPDES stormwater regulations is to improve the quality of stormwater discharged to receiving waters to the “maximum extent practicable” through the use of structural and non-structural Best Management Practices (BMPs). BMPs can include the development and implementation of various practices including educational measures (workshops informing public of what impacts results when household chemicals are dumped into storm drains), regulatory measures (local authority of drainage facility design), public policy measures, and structural measures (filter strips, grass swales and detention ponds). The NPDES permits that apply to activities in Los Angeles County are described under State and local regulations.

National Pollutant Discharge Elimination System (NPDES) Program Clean Water Act §402

The 1972 amendments to the Federal Water Pollution Control Act established the NPDES permit program to control discharges of pollutants from point sources (Section 402). The 1987 amendments to the CWA created a new section of the CWA devoted to stormwater permitting (Section 402[p]). The USEPA has granted the SWRCB primacy in administering and enforcing the provisions of CWA and NPDES through the local RWQCBs. NPDES is the primary federal program that regulates point-source and non-point-source discharges to waters of the United States. The Los Angeles Regional Water Quality Control Board (RWQCB) administers the NPDES program in Los Angeles County, as discussed further below in Regional and Local Regulations.

State

Porter-Cologne Water Quality Control Act

The Porter-Cologne Water Quality Control Act (Division 7 of the California Water Code) provides for protection of the quality of waters of the State of California for use and enjoyment by the people of California. The act also establishes provisions for a statewide program for the control of water quality, recognizing that waters of the state are increasingly influenced by inter-basin water development projects and other statewide considerations, and that factors such as precipitation, topography, population, recreation, agriculture, industry, and economic development vary regionally within the state. The statewide program for water quality control therefore is administered most effectively on a local level with statewide oversight. Within this framework, the act establishes the authority of the state board and the nine regional boards. The state board administers water rights, sets state policy for water pollution control, and implements various water quality functions throughout the state, while the regional boards conduct planning, permitting, and most enforcement activities. The Project is proposed in a location under the jurisdiction of the Los Angeles RWQCB. The Los Angeles RWQCB prepares and periodically updates the Basin Plan. Pursuant to the Clean Water Act NPDES program, the Porter-Cologne Act also delegates the authority to the RWQCBs to issue NPDES permits.

NPDES Construction General Permit

Construction associated with projects that would disturb more than one acre of land surface affecting the quality of stormwater discharges into waters of the United States is subject to the *NPDES General Permit for Stormwater Discharges Associated with Construction and Land Disturbance Activities* (Order 2022-0057-DWQ, NPDES Permit No. CAS000002). The Construction General Permit (CGP) regulates discharges of pollutants in stormwater associated with construction activity to waters of the U.S. from construction sites that disturb one acre or more of land surface, or that are part of a common plan of development or sale that disturbs more than one acre of land surface. The permit regulates stormwater discharges associated with construction or demolition activities, such as clearing and excavation; construction of buildings; and linear underground projects, including installation of water pipelines and other utility lines.

The CGP requires that construction sites be assigned a Risk Level of 1 (low), 2 (medium), or 3 (high), based both on the sediment transport risk at the site and the receiving waters risk during periods of soil exposure (e.g., grading and site stabilization). The sediment risk level reflects the relative amount of sediment that could potentially be discharged to receiving water bodies and is based on the nature of the construction activities and the location of the site relative to receiving water bodies. The receiving waters risk level reflects the risk to the receiving waters from the sediment discharge. Depending on the risk level, the construction projects could be subject to the following requirements:

- Effluent standards;
- Good site management “housekeeping;”
- Non-stormwater management;
- Erosion and sediment controls;
- Run-on and runoff controls;
- Inspection, maintenance, and repair; or
- Monitoring and reporting requirements.

The CGP requires the development and implementation of a Stormwater Pollution Prevention Plan (SWPPP) that includes specific best management practices (BMPs) designed to prevent sediment and pollutants from contacting stormwater from moving off site into receiving waters. The BMPs fall into several categories, including erosion control, sediment control, waste management and good housekeeping, and are intended to protect surface water quality by preventing the off-site migration of eroded soil and construction-related pollutants from the construction area. Routine inspection of all BMPs is required under the provisions of the CGP. In addition, the SWPPP is required to contain a visual monitoring program, a chemical monitoring program for non-visible pollutants, and a sediment monitoring plan if the site discharges directly to a water body listed on the 303(d) list for sediment.

The SWPPP must be submitted with the permit application before construction begins. The SWPPP must contain a site map(s) that delineates the construction work area, existing and proposed buildings, parcel boundaries, roadways, stormwater collection and discharge points, general topography both before and after construction, and drainage patterns across the project area. The SWPPP must list BMPs and the placement of those BMPs that the applicant would use to protect stormwater runoff. Additionally, the

SWPPP must contain a visual monitoring program; a chemical monitoring program for “non-visible” pollutants to be implemented if there is a failure of BMPs; and a sediment monitoring plan if the site discharges directly to a water body listed on the 303(d) list for sediment. Examples of typical construction BMPs include scheduling or limiting certain activities to dry periods, installing sediment barriers such as silt fence and fiber rolls, and maintaining equipment and vehicles used for construction. Non-stormwater management measures include installing specific discharge controls during certain activities, such as paving operations, vehicle and equipment washing and fueling. The CGP also sets post-construction standards (i.e., implementation of BMPs to reduce pollutants in stormwater discharges from the site following construction).

The CGP also requires post-construction measures that include non-structural and/or structural measures demonstrating final stabilization and the implementation of applicable post-construction BMPs and/or low impact development. The project must be designed such that post-construction runoff rates are equal to or less than existing runoff rates.

In the project area, the CGP is implemented and enforced by the Los Angeles RWQCB, which administers the stormwater permitting program. Dischargers must electronically submit a notice of intent and permit registration documents to obtain coverage under this CGP. Dischargers are to notify the Los Angeles RWQCB of violations or incidents of non-compliance, and submit annual reports identifying deficiencies in the BMPs and explaining how the deficiencies were corrected. The risk assessment and SWPPP must be prepared by a State Qualified SWPPP Developer, and implementation of the SWPPP must be overseen by a State Qualified SWPPP Practitioner. A legally responsible person, who is legally authorized to sign and certify permit registration documents, is responsible for obtaining coverage under the permit.

NPDES Industrial General Permit

The California statewide NPDES Industrial Storm Water General Permit (Industrial General Permit, Order 2014-0057-DWQ, NPDES Permit No. CAS000002) regulates the discharge of storm water associated with industrial activity as defined by the U. S. Environmental Protection Agency. The VWRP has acquired coverage under this permit, which requires the facility to capture and treat stormwater that falls on the facility and prevent pollutants such as motor oil, heavy metals, and trash from flowing into water bodies either directly or via storm sewer systems, threatening aquatic life and public health. The Permit requires the implementation of BMPs to prevent the release of sediment and other pollutants.

VWRP captures stormwater that falls on the facility and routes that water into the treatment system. Once treated, the water is discharged to Outfall 001 into the Santa Clara River. The treatment is required to achieve certain numeric treatment standards prior to discharge. At a minimum, facilities are required to test discharge water for pH, total dissolved solids, and oil and grease. Individual facilities may have facility-specific requirements based on the nature of the facility and the water body the discharge is routed to. For the VWRP, discharge to the Santa Clara River also requires monitoring for chloride, nitrogen, and indicator bacteria as the river is impaired for these pollutants.

Basin Plan for the Coastal Watersheds of Los Angeles and Ventura Counties

The Project site is located within the jurisdiction of the Los Angeles RWQCB, which is tasked with implementing the adopted Water Quality Control Plan (Basin Plan) for the coastal watersheds of Los

Angeles and Ventura Counties through planning, permitting, and enforcement of established water quality objectives (RWQCB 2020). In accordance with State Policy for Water Quality Control, the Los Angeles RWQCB employs a range of beneficial use designations for surface waters, groundwater basins, marshes, and mudflats that serve as the basis for establishing water quality objectives, discharge conditions, and prohibitions. For Reach 5 of the Santa Clara River, the beneficial uses include Agricultural Supply (AGR), Freshwater Replenishment (FRSH), Groundwater Recharge (GWR), Industrial Service Supply (IND), Industrial Process Water Supply (PROC), Preservation of Rare and Endangered Species (RARE), Body Contact Recreation (REC-1), Non-contact Recreation (REC-2), Warm Freshwater Habitat (WARM), Wildlife Habitat (WILD), and Wetlands Habitat (WET). For groundwater in the Santa Clara Valley East Basin 4-4.07, the beneficial uses include Municipal and Domestic Supply (MUN), Industrial Service Supply (IND), Industrial Process Water Supply (PROC), and Agricultural Supply (AGR).

Sustainable Groundwater Management Act

The Sustainable Groundwater Management Act of 2014 (SGMA, Water Code §10723) provides a framework for sustainable management of groundwater resources. Sustainable groundwater management means the management and use of groundwater in a manner that can be maintained during the planning and implementation horizon without causing “undesirable results.” Undesirable results in this context are one or more of the following:

- Chronic lowering of groundwater levels
- Significant and unreasonable reduction of groundwater storage
- Significant and unreasonable seawater intrusion
- Significant and unreasonable degraded water quality, including the migration of contaminant plumes that impair water supplies
- Significant and unreasonable land subsidence that substantially interferes with surface land uses
- Depletions of interconnected surface water that have significant and unreasonable adverse impacts on beneficial uses of the surface water

In groundwater basins designated by DWR as medium and high priority, local public agencies and locally-controlled groundwater sustainability agencies are required to develop and implement GSPs or alternatives to GSPs. DWR has identified the Santa Clara River Valley East Basin as a high-priority groundwater basin within the context of SGMA (DWR 2024).

The Santa Clara River Valley East Groundwater Subbasin Groundwater Sustainability Plan (GSP) is the groundwater planning document for the basin (GSI et al 2022). The goal of the GSP is to develop projects and management actions that result in the sustainable management of the groundwater resources of the basin for the long-term community, financial, and environmental benefits of residents and businesses in the Subbasin. The GSP outlines the approach to achieve sustainable management of groundwater resources within 20 years, and to maintain sustainability through 2070, while maintaining the unique cultural, community, and agricultural business aspects of the basin.

Local

Los Angeles County 2035 General Plan

Local jurisdictions, such as the County, have the authority and responsibility to regulate hydrology and water quality through their policy power and decision-making authority. The Los Angeles County General Plan 2035 provides the fundamental basis for the County's hazards and hazardous materials policy, and represents the basic community values, ideals, and aspirations to govern a shared environment through 2035 (LA County 2022). The General Plan addresses all aspects of development including public health, land use, community character, transportation, economics, housing, air quality, and other topics. The General Plan sets forth objectives, policies, standards, and programs for land use and new development, circulation and public access, and service systems for the Los Angeles County as a whole.

The applicable measures of the Los Angeles County General Plan Safety Element are specified below as being the most current standards.

Goal S 3: An effective regulatory system that prevents or minimizes personal injury, loss of life, and property damage due to flood and inundation hazards.

Policy S 3.3: Promote the use of natural, or nature-based flood protection measures to prevent or minimize flood hazards, where feasible.

The applicable measures of the Los Angeles County General Plan Conservation and Natural Resources Element are specified below as being the most current standards.

Goal C/NR 5: Protected and useable local surface water resources.

Policy C/NR 5.6: Minimize point and non-point source water pollution.

The applicable measures of the Los Angeles County General Plan Public Services and Facilities Element are specified below as being the most current standards.

Goal PS/F 4: Reliable sewer and urban runoff conveyance treatment systems.

Policy PS/F 4.2: Support capital improvement plans to improve aging and deficient wastewater systems, particularly in areas where the General Plan encourages development, such as TODs.

Policy PS/F 4.3: Ensure the proper design of sewage treatment and disposal facilities, especially in landslide, hillside, and other hazard areas.

3.7.3 Impact Analysis and Mitigation Measures

Thresholds of Significance

CEQA Guidelines Appendix G, Environmental Checklist Form, includes questions pertaining to hydrology and water quality. The issues presented in the Environmental Checklist have been used as thresholds of significance in this section. Accordingly, the proposed project would have a significant adverse environmental impact if it would:

- Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality (Refer to Impact 3.7-1)

- Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin (Refer to Impact 3.7-2)
- 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: (Refer to Impact 3.7-3)
 - result in substantial erosion or siltation on- or off-site;
 - substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite;
 - 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
 - impede or redirect flood flows
- Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan (Refer to Impact 3.7-4)
- In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation (Refer to *Effects Found Not to Be Significant*, below)

Methodology

This environmental analysis of the potential impacts related to hydrology and water quality from the construction and operation of the proposed project is based on a review of the results of the site-specific investigations, a review of literature and database research, and the Los Angeles County General Plan, information regarding proposed project construction details, and the description potential uses and associated operations at the project site under the proposed project.

The proposed project would be regulated by the various laws, regulations, and policies summarized above in Section 3.7.3, *Regulatory Framework*. Compliance by the proposed project with applicable federal, state, and local laws and regulations is assumed in this analysis and local and state agencies would be expected to continue to enforce applicable requirements to the extent that they do so now. Note that compliance with many of the regulations is a condition of permit approval.

A significant impact would occur if, after considering the features described in in Chapter 2, *Project Description*, and the required compliance with regulatory requirements, a significant impact would occur. For those impacts considered to be significant, mitigation measures are proposed to the extent feasible to reduce the identified impacts.

Effects Found Not to Be Significant

Based on the project site characteristics and location, the Initial Study prepared for the proposed project, and attached as Appendix A, determine that the following thresholds would result in no impact or less than significant impacts as described below:

- ***Flood hazard, tsunami, or seiche zones:*** As discussed in Section 3.7.1, *Environmental Setting*, the project site is not located in an area susceptible to flood hazards, tsunamis, or seiches. Therefore, there would be no impact relative to 100-year and 500-year flood hazards, tsunamis, or seiches, and these topics will not be evaluated further in this section.

Impact Analysis

Water Quality

Impact 3.7-1: The proposed project could violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality.

Underground Retaining Wall Improvement and Outfall Structures

Construction

Project construction would involve ground-disturbing earthwork including removal of existing structures, soil excavation and filling, trenching, and grading. These activities could increase the susceptibility of soil on the project site to erosion by wind or water. During construction, heavy equipment such as bulldozers, graders, earth movers, heavy trucks, trenching equipment and other machinery would be used. Such machinery could mobilize pollutants to stormwater runoff in the form of sediment and other pollutants such as fuel, oil and lubricants, hydraulic fluid, or other contaminants. Sediment and construction debris, if mobilized during construction, could be transported to receiving waters such as the Santa Clara River and then the Pacific Ocean.

Construction of the project would require disturbance of more than one acre and thus would be required to apply for coverage under the State Construction General Permit. A site-specific SWPPP would be developed and implemented as part of the project in accordance with the Construction General Permit to minimize water impacts during construction. The SWPPP would include BMPs designed to control and reduce soil erosion. The BMPs may include the use of silt fences and straw wattles, dewatering procedures, watering for dust control, and other BMPs as needed. In addition, the Construction General Permit would also require post-construction measures that include non-structural and/or structural measures demonstrating final stabilization and the implementation of applicable post-construction BMPs and/or low impact development. The project would be designed such that post-construction runoff rates are equal to or less than existing runoff rates.

Compliance with the Construction General Permit would prevent degradation of water quality during construction and would be effective in ensuring that construction activities would result in a less than significant impact to water quality.

Operation

Once constructed, the underground retaining wall improvements and outfall structures would decrease erosion along the VWRP border with the Santa Clara River, especially during flood events. The reduction of erosion would be a beneficial impact.

Mitigation Measures

None Required.

Significance Determination

Less than Significant Impact

Groundwater Supplies

Impact 3.7-2: The proposed project could substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin.

Underground Retaining Wall Improvement and Outfall Structures

Construction

As described in Section 2.4, Project Description, the project would involve the construction of improvements to the underground retaining wall using cement deep soil mixing (CDSM) structure and the replacement of the outfalls, all of which would require cement and concrete, which in turn requires water. The cement and concrete would be mixed onsite using a portable batch plant. The water would come from the municipal water supply, which derives the water supply from a combination of imported water, local groundwater, recycled water, and water from existing groundwater banking systems (Kennedy Jenks 2021).

The volume of water needed for construction and placement of 27,000 cubic yards of cement would not exceed water availability. The Santa Clarita Valley Water Agency prepared the Urban Water Management Plan (UWMP) to quantify water supply and demand (Kennedy Jenks 2021). The UWMP analyses indicated that the Santa Clara Valley Water Agency has adequate existing and planned supplies to meet the service area demands during normal, single and multiple-dry year periods throughout the 30-year planning period. In addition, the Agency has alternative paths to reliability should planned supplies prove not to be viable. Consequently, the project would not have an adverse impact on groundwater supplies and the impact would be less than significant.

Operation

Once constructed, the underground retaining wall improvements and outfall structures would not use water supplies. In addition, the underground retaining wall improvements and outfall structures would occupy approximately the same footprint they do now. Therefore, there would be no increase in the volume of impervious surface and no change to groundwater recharge to the underlying aquifer. Therefore, for groundwater supplies and recharge during operation, there would be no impact.

Mitigation Measures

None Required

Significance Determination

Less than Significant Impact

Drainage Patterns

Impact 3.7-3: The proposed project could 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.

Underground Retaining Wall Improvement and Outfall Structures

Construction and Operation

The retaining wall improvements would occur entirely underground, and the outfall structures would occupy approximately the same footprint they do now. Therefore, there would be no change to drainage patterns. Therefore, relative to drainage patterns, there would be no impact.

Mitigation Measures

None Required

Significance Determination

No Impact

Water Quality Control Plan or Sustainable Groundwater Management Plan

Impact 3.7-4: The proposed project could conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan.

Underground Retaining Wall and Outfall Structures

Construction

As discussed in Impact 3.7-1, the project would be required to implement a SWPPP in compliance with the Construction General Permit that would include BMPs to control construction site runoff and prevent the discharge of sediment and other pollutants to surface water bodies. The prevention of the release of sediment and other pollutants would be consistent with the water quality control plan (Basin Plan) and the sustainable groundwater management plan (GSP). In addition, the Construction General Permit would also require post-construction measures that include non-structural and/or structural measures demonstrating final stabilization and the implementation of applicable post-construction BMPs and/or low impact development. The project would be designed such that post-construction runoff rates are equal to or less than existing runoff rates. With compliance with the Construction General Permit and consistency with the Basin Plan and GSP, the impact would be less than significant.

Operation

As discussed in Chapter 2, *Project Description*, the project would not use surface water or groundwater supplies, which would be consistent with the Basin Plan and GSP. As discussed in Impact 3.7-1, the project would not affect groundwater recharge, which would be consistent with the Basin Plan and GSP. With consistency with the Basin Plan and GSP, there would be no impact.

Mitigation Measures

None Required

Significance Determination

Less than Significant Impact

Cumulative Impacts

Impact 3.7-5: Concurrent construction and operation of the proposed project and related projects in the geographic scope could result in cumulative short-term and long-term impacts.

This section presents an analysis of the cumulative effects of the project in combination with other past, present, and reasonably foreseeable future projects that could cause cumulatively considerable impacts. Significant cumulative impacts related to hydrology and water quality materials could occur if the incremental impacts of the project combined with the incremental impacts of one or more of the cumulative projects. The cumulative projects considered in this EIR are summarized in Chapter 3, *Environmental Setting, Impact Analysis, and Mitigation Measures*, under *Cumulative Impact Analysis*. There are three projects located at the VWRP. However, these projects would involve equipment and fencing upgrades that would have no impacts relative to hydrology and water quality. There are four related cumulative projects that are each located about one-half mile of the project site (see Table 3-2 of Section 3.0).

As previously discussed, the project site would not decrease groundwater recharge, substantially alter drainage patterns and is not located in an area susceptible to flood hazards, tsunamis, or seiches. Accordingly, the proposed project would not contribute to cumulative impacts related to these topics are not discussed further.

The geographic area affected by the project and its potential to contribute to cumulative impacts varies based on the environmental resource under consideration. The geographic scope of analysis for cumulative hydrology and water quality impacts encompasses and is limited to the project site and its immediately adjacent area. This is because impacts relative to hydrology and water quality impacts are generally site-specific. For example, the effect of erosion would tend to be limited to the localized area of a project and could only be cumulative if erosion occurred as the result of two or more adjacent projects that spatially overlapped.

The timeframe during which the project could contribute to cumulative hydrology and water quality impacts includes the construction and operations phases. For the project, the operations phase is permanent. However, similar to the geographic limitations discussed above, it should be noted that impacts relative to hydrology and water quality are generally time-specific. Hydrology and water quality impacts could only be cumulative if two or more impacts occurred at the same time, as well as overlapping at the same location.

Cumulative Impacts during Project Construction

Significant cumulative impacts related to hydrology and water quality could occur if the incremental impacts of the project combined with the incremental impacts of one or more of the related cumulative projects listed above to adversely affect hydrology and water quality. As listed, there are no cumulative projects under consideration adjacent to the project site.

If the project and related cumulative projects are constructed at the same time, the erosion effects could be cumulatively significant, if stormwater runoff from the sites were not controlled. However, as discussed in Impact 3.7-1, the state Construction General Permit would require each project to prepare and implement a SWPPP. The SWPPPs would describe BMPs to control runoff and prevent erosion for each

project. Compliance with this requirement would prevent sediment and other pollutants from entering water bodies. The Construction General Permit has been developed to address cumulative conditions arising from construction throughout the state and is intended to maintain cumulative effects of projects subject to this requirement below levels that would be considered significant. With compliance with existing regulations, construction for the project and related cumulative projects would not cause or contribute to a cumulatively considerable impact with respect to hydrology and water quality impacts, and therefore, the impact would be less than significant.

As discussed in Impact 3.7-2, the UWMP concluded that the Santa Clara Valley Water Agency has adequate existing and planned supplies to meet the service area demands during normal, single and multiple-dry year periods throughout the 30-year planning period. In addition, the Agency has alternative paths to reliability should planned supplies prove not to be viable. Therefore, construction for the project and related cumulative projects would not cause or contribute to a cumulatively considerable impact with respect to water supply, and therefore, the impact would be less than significant.

As discussed in Impact 3.7-4, compliance with existing regulations would result in the proposed project being consistent with the Basin Plan and the GSP. Similarly, related cumulative projects would also be required to comply with existing regulations, which would result in the related cumulative projects being consistent with the Basin Plan and the GSP. With compliance with existing regulations, construction for the project and related cumulative projects would not cause or contribute to a cumulatively considerable impact with respect to the Basin Plan and the GSP, and the impact would be less than significant.

Cumulative Impacts during Project Operations

As discussed in Impacts 3.7-1, 3.7-2, 3.7-3, and 3.7-4, the proposed project would have no impacts during operations. Accordingly, the proposed project would not contribute to cumulative impacts related to operations and these topics are not discussed further.

Mitigation Measures

None Required

Significance Determination

Less than Significant Impact

3.7.4 References

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3.8 Noise

3.8.1 Noise and Vibration Background

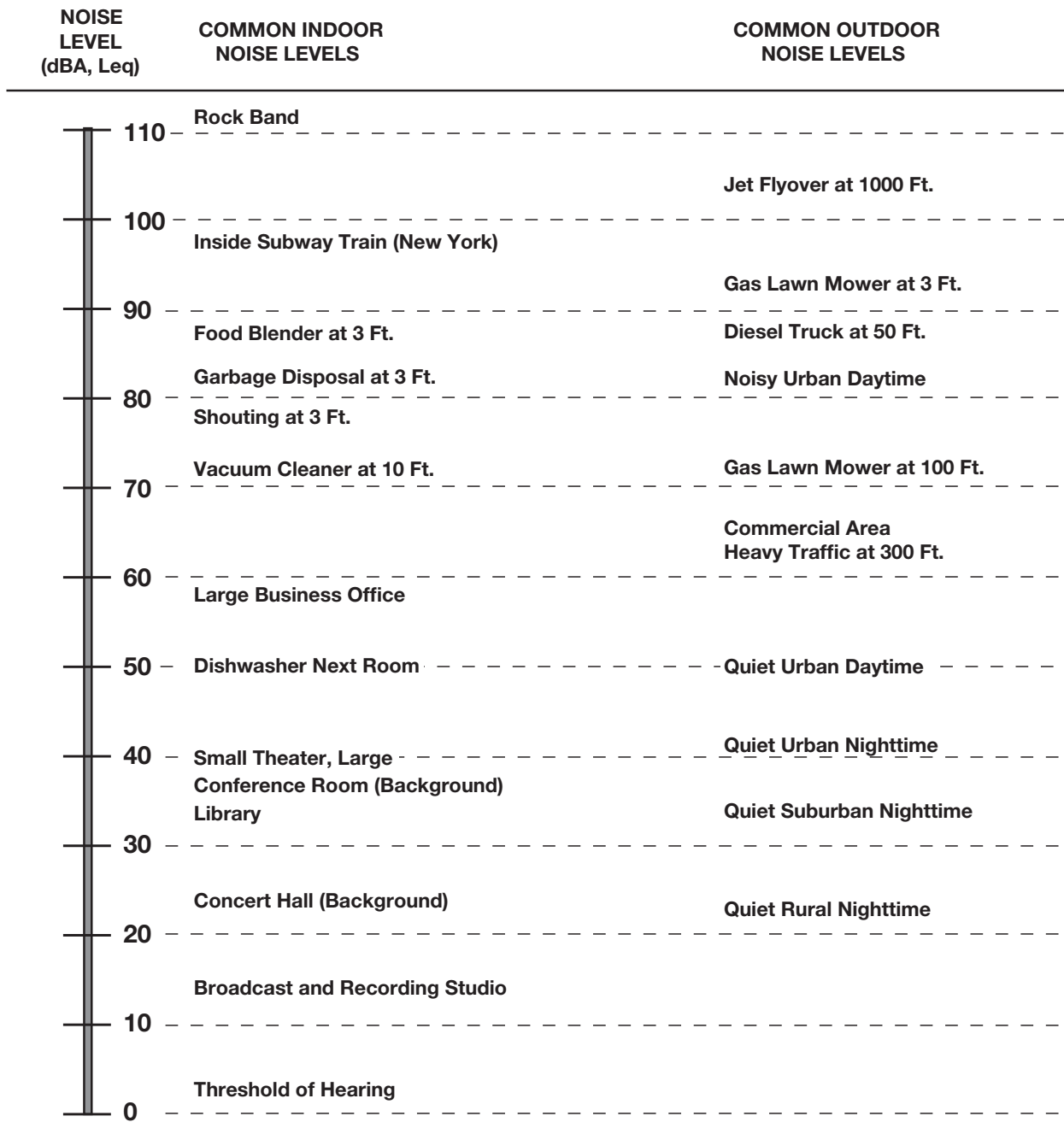
Sound can be described as the mechanical energy of a vibrating object transmitted by pressure waves through a liquid or gaseous medium (e.g., air). Noise is generally defined as unwanted sound (i.e., loud, unexpected, or annoying sound). The loudness of the noise source, and obstructions or atmospheric factors affecting the propagation path to the receiver determines the sound level and characteristics of the noise perceived by the receiver (Egan 1988).

Sound, traveling in the form of waves from a source, exerts a sound pressure level (referred to as sound level) that is measured in decibels (dB), which is the standard unit of sound amplitude measurement. The dB scale is a logarithmic scale that describes the physical intensity of the pressure vibrations that make up any sound, with 0 dB corresponding roughly to the threshold of human hearing and 120 to 140 dB corresponding to the threshold of pain. Pressure waves traveling through air exert a force registered by the human ear as sound (Egan 1988).

Sound pressure fluctuations can be measured in units of hertz (Hz), which correspond to the frequency of a particular sound. Typically, sound does not consist of a single frequency, but rather a broad band of frequencies varying in levels of magnitude, with audible frequencies of the sound spectrum ranging from 20 to 20,000 Hz. The typical human ear is not equally sensitive to this frequency range. As a consequence, when assessing potential noise impacts, sound is measured using an electronic filter that deemphasizes the frequencies below 1,000 Hz and above 5,000 Hz in a manner corresponding to the human ear's decreased sensitivity to these extremely low and extremely high frequencies. This method of frequency filtering or weighting is referred to as A-weighting, expressed in units of A-weighted decibels (dBA), which is typically applied to community noise measurements (Egan 1988). Some representative common outdoor and indoor noise sources and their corresponding A-weighted noise levels are shown in **Figure 3.8-1**.

Noise Exposure and Community Noise

An individual's noise exposure is a measure of noise over a period of time; while a noise level is a measure of noise at a given instant in time, as presented in Figure 3.8-1. However, noise levels rarely persist at that level over a long period of time. Rather, community noise varies continuously over a period of time with respect to the sound sources contributing to the community noise environment. Community noise is primarily the product of many noise sources, which constitute a relatively stable background noise exposure, with many of the individual contributors unidentifiable. The background noise level changes throughout a typical day, but does so gradually, corresponding with the addition and subtraction of distant noise sources, such as changes in traffic volume. What makes community noise variable throughout a day, besides the slowly changing background noise, is the addition of short-duration, single-event noise sources (e.g., aircraft flyovers, motor vehicles, sirens), which are readily identifiable to the individual (Caltrans 2013a).



SOURCE: State of California, Department of Transportation (Caltrans), Technical Noise Supplement (TeNS). October 1998. Available: [http://www.dot.ca.gov/hq/env/noise/pub/Technical Noise Supplement.pdf](http://www.dot.ca.gov/hq/env/noise/pub/Technical%20Noise%20Supplement.pdf)

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Figure 3.8-1
Decibel Scale and Common Noise Sources

These successive additions of sound to the community noise environment change the community noise level from instant to instant, requiring the noise exposure to be measured over periods of time to legitimately characterize a community noise environment and evaluate cumulative noise impacts. The following noise descriptors are used to characterize environmental noise levels over time, which are applicable to the proposed project (Caltrans 2013a).

L_{eq}: The equivalent sound level over a specified period of time, typically, 1 hour (L_{eq}). The L_{eq} may also be referred to as the average sound level.

L_n: Statistical Sound Level (L_n). The sound level that is exceeded “n” percent of time during a given sample period. For example, the L₅₀ level is the statistical indicator of the time-varying noise signal that is exceeded 50 percent of the time (during each sampling period); that is, half of the sampling time, the changing noise levels are above this value and half of the time they are below it. This is called the “median sound level.” The L₁₀ level, likewise, is the value that is exceeded 10 percent of the time (i.e., near the maximum) and this is often known as the “intrusive sound level.” The L₉₀ is the sound level exceeded 90 percent of the time and is often considered the “effective background level” or “residual noise level. Other L_n variables include L_{8.3}, L_{1.7}, and L₀. These metrics are based upon a 1-hour timeframe which correspond to exceedance occurring 8.3, and 1.7 percent of the time, and the maximum sound level during that time period, respectively.

CNEL: The Community Noise Equivalent Level (CNEL) is the average A-weighted noise level during a 24-hour day that includes an addition of 5 dB to measured noise levels between the hours of 7:00 a.m. to 10:00 p.m. and an addition of 10 dB to noise levels between the hours of 10:00 p.m. to 7:00 a.m. to account for noise sensitivity in the evening and nighttime, respectively.

Effects of Noise on People

Noise is generally loud, unpleasant, unexpected, or undesired sound that is typically associated with human activity that is a nuisance or disruptive. The effects of noise on people can be placed into four general categories:

- Subjective effects (e.g., dissatisfaction, annoyance);
- Interference effects (e.g., communication, sleep, and learning interference);
- Physiological effects (e.g., startle response); and
- Physical effects (e.g., hearing loss).

Although exposure to high noise levels has been demonstrated to cause physical and physiological effects, the principal human responses to typical environmental noise exposure are related to subjective effects and interference with activities. Interference effects interrupt daily activities and include interference with human communication activities, such as normal conversations, watching television, telephone conversations, and interference with sleep. Sleep interference effects can include both awakening and arousal to a lesser state of sleep (Caltrans 2013a).

With regard to the subjective effects, the responses of individuals to similar noise events are diverse and influenced by many factors, including the type of noise, the perceived importance of the noise, the appropriateness of the noise to the setting, the duration of the noise, the time of day and the type of

activity during which the noise occurs, and individual noise sensitivity. Overall, there is no completely satisfactory way to measure the subjective effects of noise, or the corresponding reactions of annoyance and dissatisfaction on people. A wide variation in individual thresholds of annoyance exists, and different tolerances to noise tend to develop based on an individual's past experiences with noise. Thus, an important way of predicting a human reaction to a new noise environment is the way it compares to the existing environment to which one has adapted (i.e., comparison to the ambient noise environment). In general, the more a new noise level exceeds the previously existing ambient noise level, the less acceptable the new noise level will be judged by those hearing it. With regard to increases in A-weighted noise level, the following relationships generally occur (Caltrans 2013a).

- Except in carefully controlled laboratory experiments, a change of 1 dBA in ambient noise levels cannot be perceived;
- Outside of the laboratory, a 3 dBA change in ambient noise levels is considered to be a barely perceivable difference;
- A change in ambient noise levels of 5 dBA is considered to be a readily perceivable difference; and
- A change in ambient noise levels of 10 dBA is subjectively heard as doubling of the perceived loudness.

These relationships occur in part because of the logarithmic nature of sound and the decibel scale. The human ear perceives sound in a non-linear fashion; therefore, the dBA scale was developed. Because the dBA scale is based on logarithms, two noise sources do not combine in a simple additive fashion, but rather logarithmically. Under the dBA scale, a doubling of sound energy corresponds to a 3 dBA increase. In other words, when two sources are each producing sound of the same loudness, the resulting sound level at a given distance would be approximately 3 dBA higher than one of the sources under the same conditions. For example, if two identical noise sources produce noise levels of 50 dBA, the combined sound level would be 53 dBA, not 100 dBA. However, where ambient noise levels are high in comparison to a new noise source, there will be a small change in noise levels. For example, when 70 dBA ambient noise levels are combined with a 60 dBA noise sources, the resulting noise level equals 70.4 dBA.

Under the dB scale, three sources of equal loudness together produce a sound level of approximately 5 dBA louder than one source, and ten sources of equal loudness together produce a sound level of approximately 10 dBA louder than the single source (Caltrans 2013a).

Nighttime noise can potentially affect sleep. Noise can make it difficult to fall asleep, can create momentary disturbances of natural sleep patterns by causing shifts from deep to lighter stages, and can cause awakening. (Los Angeles World Airports [LAWA] 2012). Although nighttime awakenings occur independent of noise, Fidell, et al., provided the following summary of night awakenings: "Depending on the definition adopted for 'awakening,' people may awaken for reasons having nothing to do with noise many times per night, at moments which may or may not closely coincide in time with the occurrence of noise events." According to Basner et al., "people exhibit an average of 21 electro physiologically detectable arousals per hour of sleep, or about 144 spontaneous arousals per night." Counting both shifts from deeper to lighter sleep states and momentary awakenings, Ollerhead et al., reported about 45 "awakenings or arousals" per night, of which only 40 percent were thought to represent even momentary awakenings. People commonly attain full waking consciousness two or three times per night for reasons having nothing to do with noise exposure.

Other potential health effects of noise identified by WHO include decreased performance for complex cognitive tasks, such as reading, attention span, problem solving, and memorization; physiological effects such as hypertension and heart disease (after many years of constant exposure, often by workers, to high noise levels); and hearing impairment (again, generally after long-term occupational exposure, although shorter-term exposure to very high noise levels, for example, exposure several times a year to concert noise at 100 dBA, can also damage hearing). Finally, noise can cause annoyance and can trigger emotional reactions like anger, depression, and anxiety. WHO reports that, during daytime hours, few people are seriously annoyed by activities with noise levels below 55 dBA (WHO 1999). While earliest studies were unable to establish a clear linkage between physiological responses and sleep disturbance recent studies have led to an increased understanding of the effects of environmental noise exposure on sleep deprivation, concluding that noise exposure leads to annoyance, sleep disturbance, daytime sleepiness, occurrence of hypertension, and impairment of cognitive performance in schoolchildren (Basner et al. 2014).

The importance of noise to receptors depends on both time and context. For example, long-term high noise levels from large traffic volumes can make conversation at a normal voice level difficult or impossible, while short-term peak noise levels, if they occur at night, can disturb sleep. As discussed in the Chapter 2, *Project Description*, operational activities would not change from existing conditions and maintenance would include annual and bi-annual inspections and tree trimming and vegetation clearance as needed. No nighttime maintenance activities would be required. Construction activities would require four nighttime days of construction to bypass and to connect the new outfall structures. The nighttime activities would be inaudible at the nearest human sensitive receptors due to the large distances between the project site and the receptors.

The Occupational Safety and Health Administration has an established noise exposure limit of 90 dBA for eight hours per day (or higher for shorter duration exposures), to protect an individual from hearing loss (29 Code of Federal Regulations 1910.95).

Noise Attenuation

When noise propagates over a distance, the noise level reduces with distance depending on the type of noise source and the propagation path. Noise from a localized source (i.e., point source) propagates uniformly outward in a spherical pattern, referred to as “spherical spreading.” Stationary point sources of noise, including stationary mobile sources such as idling vehicles, attenuate (i.e., reduce) at a rate between 6 dBA for acoustically “hard” sites and 7.5 dBA for “soft” sites for each doubling of distance from the reference measurement, as their energy is continuously spread out over a spherical surface (e.g., for hard surfaces, 80 dBA at 50 feet attenuates to 74 at 100 feet, 68 dBA at 200 feet, etc.). Hard sites are those with a reflective surface between the source and the receiver, such as asphalt or concrete surfaces or smooth bodies of water. No excess ground attenuation is assumed for hard sites and the reduction in noise levels with distance (drop-off rate) is simply the geometric spreading of the noise from the source. Soft sites have an absorptive ground surface, such as soft dirt, grass, or scattered bushes and trees, which in addition to geometric spreading, provides an excess ground attenuation value of 1.5 dBA (per doubling distance) (Caltrans 2013a).

Roadways and highways consist of several localized noise sources on a defined path, and hence are treated as “line” sources, which approximate the effect of several point sources. Noise from a line source

propagates over a cylindrical surface, often referred to as “cylindrical spreading.” (Caltrans 2013a) Line sources (e.g., traffic noise from vehicles) attenuate at a rate between 3 dBA for hard sites and 4.5 dBA for soft sites for each doubling of distance from the reference measurement (Caltrans 2013a). Therefore, noise due to a line source attenuates less with distance than that of a point source with increased distance.

Additionally, receptors located downwind from a noise source can be exposed to increased noise levels relative to calm conditions, whereas locations upwind can have lowered noise levels. Atmospheric temperature inversion (i.e., increasing temperature with elevation) can increase sound levels at long distances (e.g., more than 500 feet). Other factors such as air temperature, humidity, and turbulence can also have significant effects on noise levels (Caltrans 2013a).

A barrier will typically provide at least a 5 dBA noise reduction when it just breaks the line of sight between a noise source and a receiver, and additional noise reduction is achieved with increased height of the barrier and/or with the use of sound absorbing material (i.e., sound blankets on the noise source side of the barrier).

Foundations of Vibration

Vibration can be interpreted as energy transmitted in waves through the ground or man-made structures, which generally dissipate with distance from the vibration source. Because energy is lost during the transfer of energy from one particle to another, vibration becomes less perceptible with increasing distance from the source.

As described in the Federal Transit Administration’s (FTA) *Transit Noise and Vibration Impact Assessment*, groundborne vibration can be a serious concern for nearby neighbors of a transit system route or maintenance facility, causing buildings to shake and rumbling sounds to be heard (FTA 2018). In contrast to airborne noise, groundborne vibration is not a common environmental problem, as it is unusual for vibration from sources such as buses and trucks to be perceptible, even in locations close to major roads. Some common sources of groundborne vibration are trains, heavy trucks traveling on rough roads, and construction activities, such as blasting, pile-driving, and operation of heavy earth-moving equipment (FTA 2018).

There are several different methods that are used to quantify vibration. The peak particle velocity (PPV) is defined as the maximum instantaneous peak of the vibration signal in inches per second (in/sec), and is most frequently used to describe vibration impacts to buildings. The root mean square (RMS) amplitude is defined as the average of the squared amplitude of the signal and is most frequently used to describe the effect of vibration on the human body. Decibel notation (VdB) is commonly used to measure RMS. The relationship of PPV to RMS velocity is expressed in terms of the “crest factor,” defined as the ratio of the PPV amplitude to the RMS amplitude. PPV is typically a factor of 1.7 to 6 times greater than RMS vibration velocity (FTA 2018). VdB acts to compress the range of numbers required to describe vibration. Typically, groundborne vibration generated by man-made activities attenuates rapidly with distance from the source of the vibration. Sensitive receptors for vibration include structures (especially older masonry structures), people (especially residents, the elderly, and sick), and vibration sensitive equipment (Caltrans 2013b).

The effects of groundborne vibration include movement of the building floors, rattling of windows, shaking of items on shelves or hanging on walls, and rumbling sounds. In extreme cases, the vibration can cause damage to buildings. Annoyance from vibration often occurs when the vibration levels exceed the threshold of perception by only a small margin. A vibration level that causes annoyance will be well below the damage threshold for normal buildings.

3.8.2 Existing Conditions

Noise and Vibration-Sensitive Receptor Locations

Some land uses are considered more sensitive to noise than others, due to the types of activities of the land use requiring quiet. Noise-sensitive zones are those areas having residential or semi-residential/commercial land uses, as well as zones designated by the Director of the County's Department of Health Services, provided that conspicuous signs are displayed near the institution or facility. There are no existing noise-sensitive uses within 500 feet, which is the distance at which noise would not be discernable originating from the project site, however, the closest noise-sensitive receptors include:

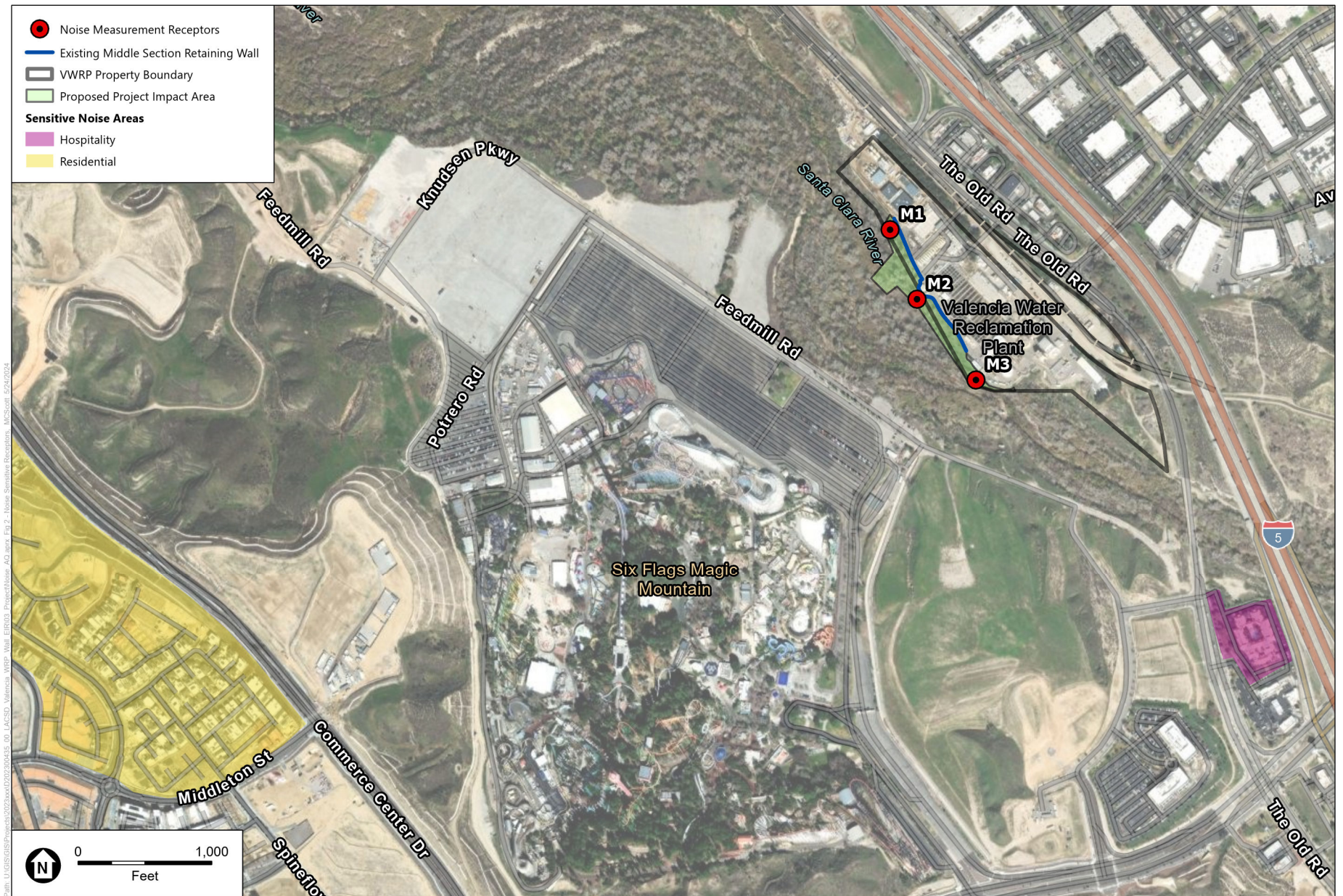
- Senior Care Facility located approximately 3,935 feet north from the project site at 28650 Newhall Ranch Rd
- St. Simeon Orthodox Church located approximately 1,730 feet northeast of the project site at 28042 Ave Stanford
- Hilton Garden Inn Valencia at Six Flags located 1,930 feet south of the project site at 27710 The Old Rd

Although there are no human noise sensitive receptors nearby, there are potential impacts to nesting bird species (Least Bell's vireo, yellow-billed cuckoo, and raptors) and/or silver-haired bats. Suitable habitat for these species has been identified in the areas approximately 25 feet to the south/southwest of the project site.

Ambient Noise Levels

Given the project site is mostly void of active uses, primary noise sources are from the surrounding urban areas. The predominant existing noise source surrounding the project site is noise from the VWRP. Secondary noise sources include operation of rides at Six Flags, as well as noise from birds and water from the Santa Clara River.

To establish baseline noise conditions, existing ambient noise levels were monitored at three locations, representing the nearby noise sensitive nesting locations in the vicinity of the project site labeled as M1 through M3 in **Figure 3.8-2**. Short-term (15-minute) noise measurements were conducted at locations M1 through M3 (See **Table 3.8-1**). The short-term noise measurements were conducted between 9:15 a.m. and 10:15 a.m. on February 14th, 2024, to characterize the existing noise environment in the proposed project vicinity. Noise measurements were not taken at any of the human sensitive receptor locations due to the large distance between the project site and the receptors.



SOURCE: ESA, 2023

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Figure 3.8-2
Noise Sensitive Receptors and
Noise Measurement Locations

TABLE 3.8-1
SUMMARY OF AMBIENT NOISE MEASUREMENTS^a

Location, Date, and Time of Measurements	Measured Ambient Noise Levels (dBA)		
	Daytime (7 a.m. to 10 p.m.) Hourly L _{eq}	Daytime (7 a.m. to 10 p.m.) Hourly L _{max}	Daytime (7 a.m. to 10 p.m.) Hourly L _{min}
M1 - 2/14/2024 (9:17 a.m. – 9:32 a.m.)	63.8	68.5	62.1
M2 - 2/14/2024 (9:35 a.m. – 9:50 a.m.)	59.7	74.5	54.0
M3 - 2/14/2024 (9:54 a.m. – 10:09 a.m.)	68.2	70.9	66.5

a. Detailed measured noise data, including hourly L_{eq} levels, are included in Appendix F.
SOURCE: ESA, 2024.

The ambient noise measurements were conducted using the Larson-Davis LxT1 Soundtrack Integrated Sound Level Meter (SLM). The Larson-Davis LxT1 Soundtrack SLM is a Type 1 standard instrument as defined in the American National Standard Institute S1.4. All instruments were calibrated and operated according to the applicable manufacturer specification. The microphone was placed at a height of five feet above the local grade, which is a standard height for noise data collection.





3.8.3 Regulatory Framework

State Level

California Noise Standards

The State of California does not have statewide standards for environmental noise, but the California Department of Health Services (DHS) has established guidelines for evaluating the compatibility of various land uses as a function of community noise exposure, as presented in **Figure 3.8-3**. The purpose of these guidelines is to maintain acceptable noise levels in a community setting for different land use types. Noise compatibility by different land uses types is categorized into four general levels: “normally acceptable,” “conditionally acceptable,” “normally unacceptable,” and “clearly unacceptable.” For instance, a noise environment ranging from 50 dBA CNEL to 65 dBA CNEL is considered to be “normally acceptable” for multi-family residential uses, while a noise environment of 75 dBA CNEL or above for multi-family residential uses is considered to be “clearly unacceptable.” In addition, California Government Code Section 65302(f) requires each county and city in the State to prepare and adopt a comprehensive long-range general plan for its physical development, with Section 65302(g) requiring a noise element to be included in the general plan. The noise element must: (1) identify and appraise noise problems in the community; (2) recognize Office of Noise Control guidelines; and (3) analyze and quantify current and projected noise levels.

Land Use Category	Noise Exposure (L_{dn} or CNEL, dBA)					
	55	60	65	70	75	80
Residential – Low Density Single-Family, Duplex, Mobile Home						
Residential – Multiple Family						
Transient Lodging – Motel, Hotel						
School, Library, Church, Hospital, Nursing Home						
Auditorium, Concert Hall, Amphitheater						
Sports Arena, Outdoor Spectator Sports						
Playground, Neighborhood Park						
Golf Course, Riding Stable, Water Recreation, Cemetery						
Office Building, Business Commercial and Professional						
Industrial, Manufacturing, Utilities, Agriculture						

-  **NORMALLY ACCEPTABLE:** Specified land use is satisfactory, based upon the assumption that any buildings involved are of normal conventional construction, without any special noise insulation requirements.
-  **CONDITIONALLY ACCEPTABLE:** New construction or development should be undertaken only after a detailed analysis of the noise reduction requirements is made and needed noise insulation features included in the design.
-  **NORMALLY UNACCEPTABLE:** New construction or development should be discouraged. If new construction or development does proceed, a detailed analysis of the noise reduction requirement must be made and needed noise insulation features included in the design.
-  **CLEARLY UNACCEPTABLE:** New construction or development should generally not be undertaken. Construction costs to make the indoor environmental acceptable would be prohibitive and the outdoor environment would not be usable.

SOURCE: State of California, General Plan Guidelines, Governor's Office of Planning and Research, 2003

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Figure 3.8-3
Guidelines for Noise Compatible Land Use

California Vibration Standards

There are no State-established vibration standards. Moreover, according to the Caltrans' *Transportation and Construction Vibration Guidance Manual*, there are no official Caltrans standards for vibration (Caltrans 2013b). However, this manual provides guidelines that can be used as screening tools for assessing the potential for adverse vibration effects related to structural damage and human perception. While the manual is meant to provide practical guidance to Caltrans engineers, planners, and consultants who must address vibration issues associated with the construction, operation, and maintenance of Caltrans projects, it may also be utilized to evaluate vibration impacts for other projects in jurisdictions where vibration thresholds are not defined. The vibration criteria established by Caltrans for assessing structural damage and human perception are shown in **Table 3.8-2** and **Table 3.8-3**, respectively.

**TABLE 3.8-2
CALTRANS VIBRATION DAMAGE POTENTIAL THRESHOLD CRITERIA**

Structure and Condition	Maximum PPV (in/sec) ^a	
	Mobile (Transient) Sources	Continuous/Frequent Intermittent Sources
Extremely fragile historic buildings, ruins, ancient monuments	0.12	0.08
Fragile buildings	0.2	0.1
Historic 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

a. PPV = Peak Particle Velocity; In/sec = Inches per Second
 NOTE: Mobile (transient) sources create a single isolated vibration event, such as blasting or drop balls. Continuous/frequent intermittent sources include impact pile drivers, pogo-stick compactors, crack and-seat equipment, vibratory pile drivers, and vibratory compaction equipment.
 SOURCE: Caltrans, 2013.

**TABLE 3.8-3
CALTRANS VIBRATION ANNOYANCE POTENTIAL CRITERIA**

Structure and Condition	Maximum PPV (in/sec) ^a	
	Mobile (Transient) Sources	Continuous/Frequent Intermittent Sources
Slightly perceptible	0.04	0.012
Distinctly perceptible	0.25	0.035
Strongly perceptible	0.9	0.10
Disturbing	2.0	0.7

a. PPV = Peak Particle Velocity; In/sec = Inches per Second
 NOTE: Mobile (transient) sources create a single isolated vibration event, such as blasting or drop balls. Continuous/frequent intermittent sources include impact pile drivers, pogo-stick compactors, crack and-seat equipment, vibratory pile drivers, and vibratory compaction equipment.
 SOURCE: Caltrans, 2013.

Local Level

County of Los Angeles General Plan Noise Element

The Los Angeles County General Plan Noise Element was established as a planning tool to develop strategies and action programs that address the multitude of noise sources and issues throughout the County. The County's Noise Element primarily addresses transportation noise sources, such as traffic, railroad, and aircraft noise. The guidelines used by the County are based on the community noise compatibility guidelines established by the California DHS, and are provided in **Table 3.8-4**. Specific regulations that implement these guidelines are set forth in the Los Angeles County Code, as discussed below.

With respect to these standards, changes in noise levels of less than 3 dBA are generally not discernible to most people, while changes greater than 5 dBA are readily noticeable and would be considered a significant increase. Therefore, the significance threshold for mobile source noise is based on human perceptibility to changes in noise levels (increases), with consideration of existing ambient noise conditions and the County's land use noise compatibility guidelines.

TABLE 3.8-4
LAND USE COMPATIBILITY FOR COMMUNITY NOISE EXPOSURE

Land Use	Community Noise Exposure CNEL, dBA			
	Normally Acceptable ^a	Conditionally Acceptable ^b	Normally Unacceptable ^c	Clearly Unacceptable ^d
Residential: Low-Density Single-Family, Duplex, Mobile Homes	50 to 60	55 to 70	70 to 75	Above 75
Residential: Multi-Family	50 to 65	60 to 70	70 to 75	Above 75
Transient Lodging: Motels, Hotels	50 to 65	60 to 70	70 to 80	Above 80
Schools, Libraries, Churches, Hospitals, Nursing Homes	50 to 70	60 to 70	70 to 80	Above 80
Auditoriums, Concert Halls, Amphitheaters	—	50 to 70	—	Above 65
Sports Arena, Outdoor Spectator Sports	—	50 to 75	—	Above 70
Playgrounds, Neighborhood Parks	50 to 70	—	67 to 75	Above 72
Golf Courses, Riding Stables, Water Recreation, Cemeteries	50 to 75	—	70 to 80	Above 80
Office Buildings, Business and Professional Commercial	50 to 70	67 to 77	Above 75	—
Industrial, Manufacturing, Utilities, Agriculture	50 to 75	70 to 80	Above 75	—

- a. Normally Acceptable: Specified land use is satisfactory, based upon the assumption that any buildings involved are of normal conventional construction without any special noise insulation requirements.
- b. Conditionally Acceptable: New construction or development should be undertaken only after a detailed analysis of the noise reduction requirements is made and needed noise insulation features included in the design. Conventional construction, but with closed windows and fresh air supply systems or air conditioning will normally suffice.
- c. Normally Unacceptable: New construction or development should generally be discouraged. If new construction or development does proceed, a detailed analysis of the noise reduction requirements must be made and needed noise insulation features included in the design.
- d. Clearly Unacceptable: New construction or development should generally not be undertaken.

SOURCE: Office of Planning and Research, 2003.

County of Los Angeles Noise Ordinance

The County of Los Angeles Noise Ordinance (Section 12.08.010, et seq., of the Los Angeles County Code) identifies exterior noise standards for any source of sound at any location within the unincorporated areas of the County, and specific noise restrictions, exemptions, and variances for exterior noise sources. Several of the ordinance requirements are applicable to aspects of the project and are discussed below.

The County Noise Ordinance provides maximum operational exterior noise level standards for four general noise zones and establishes maximum exterior noise levels for each zone. These noise zones are:

- I. Noise-Sensitive Zone —Noise-sensitive zones are designated by the County Health Officer.
- II. Residential Properties—includes all types of residential developments and properties subject to residential zoning.
- III. Commercial Properties—includes all types of commercial developments and also includes properties subject to commercial zoning classifications.
- IV. Industrial Properties—includes all properties developed with manufacturing uses and industrial zoning.

For each of these zones, the County Noise Ordinance states that exterior operational noise levels caused by project-related on-site fixed sources (i.e., point noise sources) shall not exceed the levels identified in **Table 3.8-5**, or the ambient noise level, whichever is greater, when the ambient noise level is determined without the noise source operating.

TABLE 3.8-5
COUNTY OF LOS ANGELES EXTERIOR NOISE STANDARDS

Noise Zone	Designated Noise Zone Land Use (Receptor property)	Time Interval	Exterior Noise Level dBA
I	Noise-sensitive area	Anytime	45
II	Residential Properties	10 p.m. to 7 a.m. (nighttime)	45
		7 a.m. to 10 p.m. (daytime)	50
III	Commercial Properties	10 p.m. to 7 a.m. (nighttime)	55
		7 a.m. to 10 p.m. (daytime)	60
IV	Industrial Properties	Anytime	70

SOURCE: County of Los Angeles Ordinance, No. 11743, Section 12.08.390.

Further, the County Noise Ordinance establishes the following operational standards based on the duration of the noise-generating activity:

- Standard No. 1 shall be the exterior noise level which may not be exceeded for a cumulative period of more than 30 minutes in any hour.

- Standard No. 1 shall be the applicable noise level; or, if the ambient L₅₀ exceeds the forgoing level, then the ambient L₅₀ becomes the exterior noise level for Standard No. 1.
- Standard No. 2 shall be the exterior noise level which may not be exceeded for a cumulative period of more than 15 minutes in any hour.
- Standard No. 2 shall be the applicable noise level from Standard 1 plus 5 dB(A); or, if the ambient L₂₅ exceeds the forgoing level, then the ambient L₂₅ becomes the exterior noise level for Standard No. 2.
- Standard No. 3 shall be the exterior noise level which may not be exceeded for a cumulative period of more than five minutes in any hour.
- Standard No. 3 shall be the applicable noise level from Standard 1 plus 10 dB(A); or, if the ambient L_{8.3} exceeds the forgoing level, then the ambient L_{8.3} becomes the exterior noise level for Standard No. 3.
- Standard No. 4 shall be the exterior noise level which may not be exceeded for a cumulative period of more than one minute in any hour.
- Standard No. 4 shall be the applicable noise level from Standard 1 plus 15 dB(A); or, if the ambient L_{1.7} exceeds the forgoing level, then the ambient L_{1.7} becomes the exterior noise level for Standard No. 4.
- Standard No. 5 shall be the exterior noise level which may not be exceeded for any period of time. Standard No. 5 shall be the applicable noise level from Standard 1 plus 20 dB(A); or, if the ambient L₀ exceeds the forgoing level, then the ambient L₀ becomes the exterior noise level for Standard No. 4.

Thus, the louder the noise, the shorter the duration that such noise can last. To define these specific durations of noise, the noise metrics used include L₅₀, L₂₅, L_{8.3}, L_{1.7}, and L_{max}. These metrics are based upon a 1-hour timeframe which correspond to exceedance occurring 50, 25, 8.3, and 1.7 percent of the time, and the maximum sound level during that time period, respectively. However, these operational noise regulations are not applicable to construction noise, motor vehicle noise, air conditioners, or refuse collection. (Los Angeles County Code 12.08.570[D] and [I])

The County Noise Ordinance also identifies specific restrictions regarding construction noise. Pursuant to the County Noise Ordinance, the operation of equipment used in construction, drilling, repair, alteration or demolition work is prohibited between the hours of 7:00 p.m. and 7:00 a.m. Monday through Friday, before 8:00 a.m. or after 6:00 p.m. on Saturday, and anytime on Sundays or legal holidays if such noise would create a noise disturbance across a residential or commercial property line (Los Angeles County Code, Section 12.08.440). The County Noise Ordinance further states the contractor must conduct construction activities in such a manner that the maximum noise levels at the affected buildings will not exceed those listed in **Table 3.8-6**. All mobile and stationary internal-combustion-powered equipment and machinery are also required to be equipped with suitable exhaust and air-intake silencers in proper working order. The County Code also allows for the issuance of noise variances if the activity, operation or noise source cannot feasibly be done in a manner that would comply with the provisions of this chapter, and no other reasonable alternative is available to the applicant (Los Angeles County Code Section 12.08.580[A][2]).

**TABLE 3.8-6
LOS ANGELES COUNTY PERMISSIBLE CONSTRUCTION EQUIPMENT NOISE AT RECEPTOR**

Equipment Type	Receptor Type	Daytime Hours	Nighttime Hours
Mobile	Single-family Residential	75	60
Short-term operation (less than 10 days)	Multi-family Residential	80	64
	Semi-residential/Commercial	85	70
Mobile	Business Structures	85	85
Stationary	Single-family Residential	60	50
Long-term operation (more than 10 days)	Multi-family Residential	65	55
	Semi-residential/Commercial	70	60

SOURCE: Los Angeles County Code, Section 12.08.440.

The County Noise Ordinance Section 12.08.350 provides a presumed perception threshold of 0.01 inches-per-second (in/sec) RMS. The vibration level of 0.01 in/sec RMS is equivalent to 0.04 in/sec PPV.

3.8.4 Impact Analysis and Mitigation Measures

Thresholds of Significance

CEQA Guidelines Appendix G, Environmental Checklist Form, includes questions pertaining to noise. The issues presented in the Environmental Checklist have been used as thresholds of significance in this section. Accordingly, the proposed project would have a significant adverse environmental impact if it would:

- 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 (Refer to Impact 3.8-1)
- Generation of excessive groundborne vibration or groundborne noise levels (Refer to Impact 3.8-2)
- 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 (Refer to Section, *Effects Found Not to Be Significant*, below)
- Result in a cumulatively considerable impacts (Refer to Impact 3.8-3)

Methodology

Noise impacts are assessed based on a comparative analysis of the noise levels resulting from the proposed project and the noise levels under existing conditions.

Construction Noise

Analysis of temporary construction noise effects is based on typical construction phases, published or previously measured decibel levels of construction equipment and attenuation of those noise levels due to distances, presence of any barriers between the construction activity and the sensitive receptors near the sources of construction noise, and time of day and expected duration of construction activity. Sensitive receptor distances are measured from the sensitive receptor property boundary to the work area. As noted

in Section 3.8.2, *Existing Conditions*, all human noise sensitive receptors are at a distance of 1,700 feet or greater and are outside of the 500-foot screening distance. Therefore, noise impacts to these receptors are not analyzed herein. However, there is suitable habitat for special status species nearby that could be impacted by construction activities. The impacts to sensitive species are analyzed below.

Noise impacts from short-term construction activities could exceed noise thresholds and could result in a significant construction impact if short-term construction activity occurred outside of the daytime hours permitted by the City's and/or County's municipal code noise ordinance.

Construction of the proposed project would generate noise levels higher than the current ambient noise levels. Construction noise levels are estimated using the equipment noise levels provided in the Federal Highway Administration (FHWA) Roadway Construction Noise Model User's Guide (FHWA 2006). The County of Los Angeles has adopted its own standards which can be found in Table 3.8-6 as its threshold for construction noise and can apply to the surrounding sensitive receptors located in Santa Clarita as Santa Clarita does not have its own quantitative noise thresholds for construction. Construction can occur anytime during the following permitted hours within the Valencia Water Reclamation Plant based on the County of Los Angeles and City of Santa Clarita hourly limits for construction:

- The operation of equipment used in construction, drilling, repair, alteration or demolition work is prohibited between the hours of 7:00 p.m. and 7:00 a.m. Monday through Friday, and
- Construction does not occur before 8:00 a.m. or after 6:00 p.m. on Saturday, and anytime on Sundays or legal holidays if such noise would create a noise disturbance across a residential or commercial property line (Los Angeles County Code, Section 12.08.440)

During construction of the project site, noise levels would be generated from offsite mobile noise sources such as vehicular traffic. The noise levels generated by these mobile noise sources are assessed in this study with the FHWA approved traffic noise source noise modeling guidelines. For project-related construction traffic noise, the project causes the ambient noise levels measured at the property line of affected uses to increase by 3 dBA CNEL to or within the "normally unacceptable" or "clearly unacceptable" categories; or the project causes the ambient noise levels measured at the property line of affected uses to increase by 5 dBA CNEL or more within the "normally acceptable" or "conditionally acceptable" categories.

Construction Vibration

Vibration from construction is evaluated for potential impacts at sensitive receptors. Typical activities evaluated for potential building damage due to construction vibration include demolition, pile driving, and drilling or excavation in close proximity to structures. The groundborne vibration is also evaluated for perception to eliminate annoyance. Vibration propagates according to the following expression, based on point sources with normal propagation conditions:

$$PPV_{equip} = PPV_{ref} \times (25/D)^{1.5}$$

Where PPV (equip) is the peak particle velocity in inches per second of the equipment adjusted for distance, PPV (ref) is the reference vibration level in inches per second at 25 feet, and D is the distance from the equipment to the receiver. The PPV is defined as the maximum instantaneous positive or

negative peak of the vibration and is often used in monitoring vibration because it is related to the stresses experienced by structures.

To determine the potential for annoyance, the RMS vibration level (L_v) at any distance (D) is estimated based on the following equation:

$$L_v(D) = L_v(25 \text{ ft}) - 30 \log(D/25)$$

Operational Stationary Noise

A resulting off-site noise level at residences and other sensitive receptors from stationary, non-transportation sources that exceed levels in Table 3.8-5 would result in a significant noise impact.

Operational Mobile Noise

For project-related operational traffic-related noise, if the project causes the ambient noise levels measured at the property line of affected uses to increase by 3 dBA CNEL to or within the “normally unacceptable” or “clearly unacceptable” categories; or the project causes the ambient noise levels measured at the property line of affected uses to increase by 5 dBA CNEL or more within the “normally acceptable” or “conditionally acceptable” categories, a significant impact would occur.

Effects Found Not to Be Significant

Based on the project site characteristics and location, the Initial Study prepared for the proposed project, and attached as Appendix A, determine that the following thresholds would result in no impact or less than significant impact as described below:

Private airstrip or airport land use plan: The project site is not located within an airport land use plan area or within two miles of a public airport or public use airport. The project site is not located within the vicinity of a private airstrip, or heliport or helistop. Airport and airfields in proximity to the project site include Whiteman Airport approximately 15 miles to the southeast, and Van Nuys Airport approximately 16 miles to the south. Therefore, the project would not expose people to excessive noise levels from such uses and no impacts would occur.

Impact Analysis

Ambient Noise

Impact 3.8-1: The proposed project could generate 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 Noise

On-Site Construction

Construction noise levels associated with the proposed project would fluctuate depending on the particular type, number, and duration of uses of various pieces of construction equipment during various construction phase activities. Material haul truck trips (from spoils and other project materials) would raise ambient noise levels along haul routes, depending on the number of haul trips made and types of vehicles used. **Table 3.8-7** shows the typical maximum and average noise levels produced by various types of construction equipment.

**TABLE 3.8-7
TYPICAL NOISE LEVELS FROM CONSTRUCTION EQUIPMENT**

Construction Equipment	Maximum Noise Level (dBA, L_{max} at 50 feet)	Average Noise Level (dBA, L_{eq} at 50 feet)^a
Air Compressor	78	74
Backhoe	78	74
Chain Saw	84	77
Compactor (Ground)	83	76
Concrete Mixer Truck	79	75
Concrete Pump Truck	81	74
Concrete Saw	90	83
Crane	81	73
Dozer	82	78
Dump Truck	77	73
Excavator	81	77
Generator	82	79
Flat-Bed Truck	74	70
Front End Loader	79	75
Grader	85	81
Jack Hammer	89	82
Pavement Scarafier	90	83
Paver	77	74
Pneumatic Tool	85	82
Pumps	81	78
Roller	80	73
Scraper	84	80
Tractor	84	80
Vacuum Street Sweeper	82	72
Vibratory Concrete Mixer	80	73
Welder/Torch	74	70

a. The average noise levels for the construction equipment at 50 feet were calculated from the maximum noise levels using the usage factors for each piece of equipment provided in the FHWA's RCNM.
SOURCE: FHWA 2006.

Consistent with the modeling conducted for the air quality and greenhouse gas emissions analysis using the California Emissions Estimator Model (CalEEMod) for construction of the project, construction noise is estimated based on the same types and number of construction equipment expected to be used in each construction phase for the components of the proposed project. Construction of the proposed project is anticipated to begin in February of 2026 and conclude by October of 2027, which would be a span of 20 months of construction. Construction phasing would be split into three phases which include demolition (1 month), grading and excavation (4 months), and construction of retaining wall and outfall (15 months). The proposed project would construct an underground retaining wall along the VWRP's middle section

wall in order to prevent scouring, upgrades to the existing outfall structures would be installed, and additional riprap would be installed to extend the existing riprap to the southwest.

For the proposed project, construction of proposed improvements would not result in the exposure of sensitive receptors deemed by the County of Los Angeles and Santa Clarita to not exceed the County's 65 and 70 dBA L_{eq} noise threshold for multi-family residential and semi-residential/commercial, respectively, due to the distance of such receptors from the proposed project. Therefore, on-site construction noise would result in a less than significant impact on human sensitive receptors. Noise impacts associated with special-status wildlife species is discussed in Section 3.2, *Biological Resources*.

Off-Site Construction

On a maximum day, project construction would result in 20 worker trips, 4 vendor trips, and 8 haul truck trips per day. Generally speaking, a doubling of traffic volumes results in a 3 dBA increase in ambient noise levels (Minnesota DOT 2011). The addition of 20 worker trips and the occasional haul truck trips per day would not double traffic volumes in the project vicinity. Therefore, project construction would not increase ambient noise levels by greater than 3 dBA and impacts would be less than significant.

Operation

Project operations that would generate noise include maintenance vehicle trips. Implementation of the proposed project would not result in new employees, as these are structural upgrades. Outfall structures would be inspected once every 6 to 12 months to monitor the amount of vegetation growth, and maintenance would include tree trimming and vegetation clearing. Operations at the VWRP would not change. As a result, maintenance and inspection of facilities would result in a minimal increase in traffic trips, and therefore, operational vehicle trip increases would not generate a substantial increase in noise along local roadways. Impacts would be less than significant.

Mitigation Measures

None Required

Significance Determination

Less than Significant Impact

Groundborne Vibration and Noise

Impact 3.8-2: The proposed project could generate excessive groundborne vibration or groundborne noise levels.

Construction

Retaining Wall and Outfall Structures

Typical activities that could generate groundborne vibration during construction include demolition, pile driving, and drilling or excavation in close proximity to structures. FTA's threshold of architectural damage for conventional sensitive structures is 0.2 in/sec PPV and the FTA threshold of human annoyance to groundborne vibration is 80 VdB RMS (FTA 2018). Construction of the project would employ conventional activities and the equipment/techniques to be used would not cause excessive groundborne vibration. As shown in **Table 3.8-9**, use of heavy equipment during construction generates vibration levels of up to 0.089 in/sec PPV or 87 VdB RMS (large bulldozer) at a distance of 25 feet.

**TABLE 3.8-9
VIBRATION VELOCITIES FOR CONSTRUCTION EQUIPMENT**

Construction Equipment	PPV at 25 Feet (inches/second)	RMS at 25 Feet (VdB)	PPV at 800 Feet (inches/second)	RMS at 100 Feet (VdB)
Large Bulldozer/Drill Rig	0.089	87	<0.001	42
Loaded Trucks	0.076	86	<0.001	40
Jackhammer	0.035	79	<0.001	34
Small Bulldozer	0.003	58	<0.0001	12.3
SOURCE: FTA 2018				

The nearest structure to the proposed project construction is the commercial facilities to the northeast across The Old Road. The distance to the commercial structures is approximately 800 feet from the boundary of the project site where the improvements are proposed. At this distance, the sensitive receptors would experience vibration levels less than 0.001 in/sec PPV and up to 42 VdB RMS. Vibration levels would be lower than both the 0.2 in/sec PPV structural damage threshold and the 80 VdB RMS human annoyance threshold. Therefore, impacts would be less than significant.

Operation

Operations of the proposed components of the project would not generate substantial vibration to affect receivers adjacent to proposed project facilities. Impacts would be less than significant.

Mitigation Measures

None Required

Significance Determination

Less than Significant Impact

Cumulative Impacts

Impact 3.8-3: Concurrent construction and operation of the proposed project and related projects in the geographic scope could result in cumulative short-term and long-term impacts.

Cumulative construction impacts could occur when multiple construction projects are occurring simultaneously with the proposed project. The cumulative noise levels would be intermittent, temporary and would cease at the end of the respective construction periods. It is not likely that maximum construction noise impacts from related projects would occur simultaneously, as sound levels vary from day to day depending on the construction activity performed that day and its location on the development site. Although there would be an increase in temporary ambient sound levels, each construction project would be expected to comply with the County's Noise Ordinance with construction occurring within the allowed hours of 7:00 a.m. and 7:00 p.m. Monday through Friday and from 8:00 a.m. to 6:00 p.m. on Saturday. Furthermore, noise from construction activities is localized and would normally only affect the areas within 500 feet from individual construction sites due to the distance noise attenuation rate of 6 dBA per doubling of distance.

According to CEQA Guidelines Section 15300.2(b), cumulative impacts may occur if the impact of successive projects of the same type in the same place, over time is significant. Noise from the construction of development projects is generally localized to the immediate area of the project site and typically has the potential to affect noise-sensitive uses within 500 to 1,000 feet from the construction site, due to the effect of noise attenuation from increasing distance away from a site. As discussed above, the project would result in a less than significant impact for construction. Other projects requiring discretionary approval would be required to conduct their own analysis under CEQA, demonstrate compliance with applicable county or city noise ordinance standards including limiting noise from construction equipment based upon Table 3.8-6, and provide mitigation measures, if required. The closest related project in the vicinity of the proposed Project includes the proposed The Old Road over Santa Clara River project located to the east of the proposed project by approximately 600 feet. In addition to the proposed project, VWRP would have 3 additional facility improvements that are currently proposed. Regardless, the nearest sensitive receptors from both the proposed project and the closest related projects are greater than 1,000 feet from their respective construction site. Thus, cumulatively significant impacts of successive projects of the same type in the same place over time would not occur. Further, because construction noise would be substantially attenuated prior to reaching land uses proximate to the project area and the County imposes a noise limit on construction equipment, cumulative noise from cumulative construction projects would not be substantially different than that generated by the project. As such, the project would not result in a cumulatively considerable construction noise impact.

Cumulative operational noise impacts would occur primarily as a result of increased traffic on local roadways due to operation of the project and cumulative projects, as traffic is the greatest source of operational noise in the project area. The trip generation from the project is not anticipated to result in a substantial or significant noise increase. As stated previously, the project would generate a noise level generally similar to the existing traffic noise levels because the project would not generate substantially different traffic volumes compared to existing conditions. Furthermore, related projects are assumed to be consistent with the zoning and land use designations for these sites and would not result in growth beyond planning projections. Thus, when considered with the traffic noise from buildout of the General Plan, the traffic noise increase from the proposed project would not be perceptible by the human ear in a non-controlled environment, such as in an urban environment. As a result, the project's contribution to cumulative operational impacts would not be cumulatively considerable and impacts would be less than significant.

Stationary-source noise is generally localized to the immediate area. The project's stationary noise sources (i.e., fixed mechanical equipment) would not contribute to a perceptible increase in ambient noise levels at adjacent properties and would not exceed City standards. Although each related project could potentially impact an adjacent sensitive use, that potential impact would be localized to that specific area and would not contribute to cumulative noise conditions at or adjacent to the proposed project area. Therefore, cumulative stationary source noise would be less than significant. As the project's contribution to cumulative traffic impacts and stationary-source noise impacts would not be cumulatively considerable, cumulative operational noise impacts would be less than significant.

Ground-borne vibration generated by man-made activities attenuates rapidly with distance from the source of the vibration. Man-made vibration issues are, therefore, usually confined to short distances from the source (i.e., 50 feet or less). Due to the rapid attenuation characteristics of ground-borne vibration, there is no

expected potential for cumulative construction- or operational-period impacts with respect to ground-borne vibration from related projects. Therefore, cumulative vibration impacts would be less than significant.

Mitigation Measures

None required

Significance Determination

Less than Significant Impact

3.8.5 References

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3.9 Transportation

This section of the Draft EIR addresses existing transportation conditions within the proposed project areas, presents the associated regulatory framework, and provides an analysis of potential impacts that would result from construction and implementation of the proposed project.

3.9.1 Environmental Setting

Regional Roadways

Regional access to the Santa Clarita Valley (SCV) is provided by two primary freeway corridors: Interstate 5 (I-5) traverses the SCV in a northwesterly direction and is delineated with eight travel lanes; and State Route 14 (SR-14) traverses the SCV in a northeasterly direction and accommodates between four and 10 travel lanes. I-5 provides a link between the southern and northern portions of California, and also serves as a link for commuter traffic between Santa Clarita communities and Los Angeles. SR-14 is also used by a significant amount of commuter traffic, as well as providing a regional link between the Los Angeles basin and the high desert communities of Palmdale and Lancaster. I-5 and SR-14 converge in the Newhall Pass, located south of the southerly SCV area boundary.

Secondary regional access is provided to motorists in the western portion of the SCV via State Route 126 (SR-126), which extends from the City of Ventura east to I-5. East of I-5, SR-126 was once designated along portions of Magic Mountain Parkway and San Fernando Road (now known as Railroad Avenue and Newhall Avenue) between I-5 and SR-14; however, these roadways were turned over to the City in 2002 and no longer serve as a State highway alignment.

Streets and Highways

The United States Department of Transportation has classified streets and highways within the project area into the following categories (USDOT 2017), based on their function and design:

- *Interstates* are the highest classification of Arterials and were designed and constructed with mobility and long-distance travel in mind. Since their inception in the 1950s, the Interstate System has provided a superior network of limited access, divided highways offering high levels of mobility while linking the major urban areas of the United States. Determining the functional classification designation of many roadways can be somewhat subjective, but with the Interstate category of Arterials, there is no ambiguity. Roadways in this functional classification category are officially designated as Interstates by the Secretary of Transportation, and all routes that comprise the Dwight D. Eisenhower National System of Interstate and Defense Highways belong to the Interstate functional classification category and are considered Principal Arterials.
- *Other Freeways and Expressways* look very similar to Interstates. While there can be regional differences in the use of the terms 'freeway' and 'expressway', for the purpose of functional classification the roads in this classification have directional travel lanes are usually separated by some type of physical barrier, and their access and egress points are limited to on- and off-ramp locations or a very limited number of at-grade intersections. Like Interstates, these roadways are designed and constructed to maximize their mobility function, and abutting land uses are not directly served by them.

- *Other Principal Arterials* serve major centers of metropolitan areas, provide a high degree of mobility and can also provide mobility through rural areas. Unlike their access-controlled counterparts, abutting land uses can be served directly. Forms of access for Other Principal Arterial roadways include driveways to specific parcels and at-grade intersections with other roadways. For the most part, roadways that fall into the top three functional classification categories (Interstate, Other Freeways & Expressways and Other Principal Arterials) provide similar service in both urban and rural areas. The primary difference is that there are usually multiple Arterial routes serving a particular urban area, radiating out from the urban center to serve the surrounding region. In contrast, an expanse of a rural area of equal size would be served by a single Arterial.
- *Minor Arterials* provide service for trips of moderate length, serve geographic areas that are smaller than their higher Arterial counterparts and offer connectivity to the higher Arterial system. In an urban context, they interconnect and augment the higher Arterial system, provide intra-community continuity and may carry local bus routes.
- *Major and Minor Collectors* serve a critical role in the roadway network by gathering traffic from Local Roads and funneling them to the Arterial network. Within the context of functional classification, Collectors are broken down into two categories: Major Collectors and Minor Collectors. Until recently, this division was considered only in the rural environment. Currently, all Collectors, regardless of whether they are within a rural area or an urban area, may be sub-stratified into major and minor categories. The determination of whether a given Collector is a Major or a Minor Collector is frequently one of the biggest challenges in functionally classifying a roadway network.
- *Local Roads* account for the largest percentage of all roadways in terms of mileage. They are not intended for use in long distance travel, except at the origin or destination end of the trip, due to their provision of direct access to abutting land. Bus routes generally do not run on Local Roads. They are often designed to discourage through traffic. As public roads, they should be accessible for public use throughout the year.

The SCV experiences typical suburban traffic patterns, which are characterized by traffic volumes that peak during the AM and PM commute periods. Based on existing conditions traffic data and traffic model forecast data for 23 key intersections within the SCV, the current AM and PM peak hour conditions will continue to worsen over time absent any changes to the current circulation system. The City's General Plan's Circulation Element update addresses the existing and potential future deficiencies through a combination of land use and transportation planning (City of Santa Clarita 2011).

The VWRP and proposed project construction area is located on The Old Road, a two lane minor collector. The Old Road provides access from the facility to Magic Mountain Parkway, I-5, and the Newhall Ranch Road. These roadways connect the project site with the City of Los Angeles to the south, the City of Ventura to the west, and Northern California. **Table 3.9-1** summarizes the major roadways within the project area that would be used by construction workers to arrive and depart from the project site.

**TABLE 3.9-1
MAJOR ROADWAYS IN PROJECT AREA**

Roadway	Functional Classification^a	Distance from Nearest Project Access Point	Roadway Description
The Old Road	Major Collector	~10 feet east	The Old Road is adjacent to I-5 throughout the City and serves as the principal alternative to the interstate.
Rye Canyon Road	Minor Arterial	~10 feet east	A mile long road in the northern part of the Valencia neighborhood of the City. Connects Newhall Ranch Rd to I-5.
Magic Mountain Parkway	Other Principal Arterial/Major Collector	~3,500 feet south	A 4-mile-long road transversing east to west through the Valencia neighborhood of the City.
Newhall Ranch Road	Other Principal Arterial/Local	~6,000 feet north	A 5.6-mile-long road transversing through the northern area of the City and connects the Valencia and Canyon Country neighborhoods.
Interstate 5	Interstate	~440 feet east	Interstate that traverses the SCV in a northwesterly direction and is delineated with eight travel lanes.

NOTES:

a. The Federal Highway Administration identifies functional classification as a key item in transportation data. Streets and highways are grouped into classes according to the service they provide. (Caltrans 2024)

SOURCE: City of Santa Clarita 2011 and Caltrans 2024.

Public Transit and Other Transportation Services

City of Santa Clarita Transit

Local and regional bus service is provided by City of Santa Clarita Transit, which operates local routes within the SCV and commuter service into and out of Downtown Los Angeles, Century City, the Antelope Valley, and Warner Center. The City assumed responsibility for local transit in 1991 from Los Angeles County, which operated a small transit system. Under City management, express services to the San Fernando Valley, West Los Angeles, and downtown Los Angeles were expanded. The City completed a Transit Development Plan (TDP) in 1997 which made several recommendations for improvements and modifications. Since 1997 and based on the TDP, total transit system ridership has more than doubled. The City updated the TDP in 2006.

With ridership of 3.7 million passengers in 2006, City of Santa Clarita Transit provides connections with services by Metrolink, Antelope Valley Transit Authority, Metro, and other regional transit providers. City of Santa Clarita Transit provides service on eight local fixed routes, eight commuter express routes, two station link routes, and supplemental school day service. Local routes provide service seven days a week while the remaining services operate on weekdays only. Express buses operate to and from the Antelope Valley, Downtown Los Angeles, North Hollywood, Westwood/Century City, and Woodland Hills. City of Santa Clarita Transit's regional routes serve several park-and-ride lots located throughout the SCV, as well as the Santa Clarita and Newhall Metrolink stations.

Commuter Transit Service

City of Santa Clarita Transit operates local commuter service into and out of Downtown Los Angeles, Century City, the Antelope Valley, and Warner Center. Most of these routes are well used; use is monitored and adjustments are made to times if necessary to accommodate demand. The busiest commuter transit stops serve the Metrolink stations and park-and-ride lots. Commuters have identified the need to increase service to downtown Los Angeles during mid-day hours, and to provide service to the North Hollywood Metro Station which has service to the G and B Lines. City of Santa Clarita Transit will continue to expand service to meet customer needs as funding allows.

Park-and-ride Lots

Five park-and-ride lots are located in and near the planning area to encourage the use of public transit for a portion of commuter travel. All park-and-ride lots within the City have transit service except for the lot at Golden Valley Road at SR-14. Several of the park-and-ride lots, including those at the Newhall and Santa Clarita Metrolink stations, are at or exceeding capacity. Additional commuter parking is provided in scattered locations within businesses adjacent to transit routes.

Bicycle/Pedestrian Circulation

Bikeways

A vital component of the SCV's circulation system is an integrated system of bikeways, both on-street and off-street. An interconnected network of safe and convenient bikeways provides residents with both recreational benefits and options for reducing vehicle trips for short trips. In addition, providing attractive bikeways can provide public health benefits by encouraging exercise.

The first bike paths built in the City generally followed the SCR and its tributaries. Newer paths have been developed which connect residential neighborhoods to the river paths. Bike paths exist in most neighborhoods, providing connections to the Santa Clarita Metrolink Station, several schools, businesses along Soledad Canyon Road and McBean Parkway, and recreational opportunities along the rivers. Grade-separated undercrossings are generally provided where Class I bike paths cross major highways.

Pedestrian Circulation System

A fundamental goal of the General Plan is to create walkable communities and neighborhoods within the SCV. In order to achieve this objective, pedestrian access must be considered in all phases of development planning, including site design, subdivision design, and public improvement projects. The basic needs for pedestrian travel are safety, connectivity, and accessibility for all, including the disabled.

The SCV's existing pedestrian network is comprised of sidewalks, paseos, and multi-use trails. Sidewalks are defined as pathways running alongside a parallel roadway. Paseos are paved walking paths that provide pedestrian links outside of the street network. Multi-use trails are unpaved trails that are suitable for walkers, hikers, equestrians and mountain bikers.

3.9.2 Regulatory Framework

State

Senate Bill 743

Passed in 2013, California Senate Bill (SB) 743 changes the focus of transportation impact analysis in CEQA from measuring impacts to drivers, to measuring the impact of driving. The change is being made by replacing Level of Service (LOS) with vehicle miles traveled (VMT). This shift in transportation impact focus is intended to better align transportation impact analysis and mitigation outcomes with the State's goals to reduce greenhouse gas (GHG) emissions, encourage infill development, and improve public health through development of multimodal transportation networks. Level of service or other delay metrics may still be used to evaluate the impact of projects on drivers as part of land use entitlement review and impact fee programs.

In December 2018, the Natural Resources Agency finalized updates to Section 15064.3 of the CEQA Guidelines, including the incorporation of SB 743 modifications. The Guidelines' changes were approved by the Office of Administrative Law and as of July 1, 2020, are now in effect statewide.

To help aid lead agencies with SB 743 implementation, the Governor's Office of Planning and Research (OPR) produced the *Technical Advisory on Evaluating Transportation Impacts in CEQA* (OPR 2018) that provides guidance about the variety of implementation questions they face with respect to shifting to a VMT metric. Key guidance from this document includes:

- VMT is the most appropriate metric to evaluate a project's transportation impact.
- OPR recommends tour- and trip-based travel models to estimate VMT, but ultimately defers to local agencies to determine the appropriate tools.
- OPR recommends measuring VMT for residential and office projects on a "per rate" basis.
- OPR recommends that a per capita or per employee VMT that is fifteen percent below that of existing development may be a reasonable threshold. In other words, an office project that generates VMT per employee that is more than 85 percent of the regional VMT per employee could result in a significant impact. OPR notes that this threshold is supported by evidence that connects this level of reduction to the State's emissions goals.
- OPR recommends that where a project replaces existing VMT-generating land uses, if the replacement leads to a net overall decrease in VMT, the project would lead to a less-than-significant transportation impact. If the project leads to a net overall increase in VMT, then the thresholds described above should apply.
- Lead agencies have the discretion to set or apply their own significance thresholds.

Regional

Southern California Association of Governments 2020–2045 Regional Transportation Plan / Sustainable Communities Strategy

In compliance with SB 375, on September 3, 2020, the Southern California Association of Governments (SCAG) Regional Council adopted the 2020–2045 Regional Transportation Plan/Sustainable Communities Strategy (2020–2045 RTP/SCS), a long-range visioning plan that incorporates land use and transportation strategies to increase mobility options and achieve a more sustainable growth pattern while meeting GHG reduction targets set by CARB. The 2020–2045 RTP/SCS contains baseline socioeconomic

projections that are used as the basis for SCAG's transportation planning, as well as the provision of services by the six-county region of Imperial, Los Angeles, Orange, Riverside, San Bernardino, and Ventura counties. SCAG policies are directed towards the development of regional land use patterns that contribute to reductions in vehicle miles and improvements to the transportation system.

The 2020–2045 RTP/SCS builds on the long-range vision of SCAG's prior 2016-2040 RTP/SCS to balance future mobility and housing needs with economic, environmental and public health goals. A substantial concentration and share of growth is directed to Priority Growth Areas (PGAs), which include high quality transit areas (HQTAs), Transit Priority Areas (TPAs), job centers, Neighborhood Mobility Areas (NMAs) and Livable Corridors. These areas account for four percent of SCAG's total land area but the majority of directed growth.

The 2020–2045 RTP/SCS' "Core Vision" prioritizes the maintenance and management of the region's transportation network, expanding mobility choices by co-locating housing, jobs, and transit, and increasing investment in transit and complete streets. Strategies to achieve the "Core Vision" include, but are not limited to, Smart Cities and Job Centers, Housing Supportive Infrastructure, Go Zones, and Shared Mobility. The 2020–2045 RTP/SCS intends to create benefits for the SCAG region by achieving regional goals for sustainability, transportation equity, improved public health and safety, and enhancement of the regions' overall quality of life. These benefits include, but are not limited to, a five percent reduction in VMT per capita, nine percent reduction in vehicle hours traveled, and a two percent increase in work-related transit trips.

Local

Los Angeles County Department of Public Works

The Los Angeles County Department of Public Works adopted its Transportation Impact Analysis Guidelines on July 23, 2020 (LA County DPW 2020). The Transportation Impact Analysis Guidelines include guidance and requirements for VMT analysis of development projects, including project screening, analysis methodology, significance criteria, impact assessment, and mitigation strategies. Significance criteria in the Transportation Impact Analysis Guidelines for land use projects are focused on a project's potential to increase VMT above thresholds that are tied to regional averages.

Los Angeles County 2035 General Plan

Local jurisdictions, such as the County, have the authority and responsibility to regulate the routine accommodation of all users of a road or street, including pedestrians, bicyclists, users of public transit, motorists, children, seniors, and the disabled. The Mobility Element addresses this requirement with policies and programs that consider all modes of travel, with the goal of making streets safer, accessible, and more convenient to walk, ride a bicycle, or take transit. The Los Angeles County General Plan 2035 provides an overview of the transportation infrastructure and strategies for developing an efficient and multimodal transportation network (LA County 2022). The applicable measures of the Los Angeles County General Plan Mobility Element are specified below as being the most current standards.

Goal M 4: An efficient multimodal transportation system that serves the needs of all residents.

Policy M 6.3: Designate official truck routes to minimize the impacts of truck traffic on residential neighborhoods and other sensitive land uses.

Policy M 6.4: Minimize noise and other impacts of goods movement, truck traffic, deliveries, and staging in residential and mixed-use neighborhoods.

Transportation Analysis Updates in Santa Clarita Report

In response to SB 743, the City is adopting new transportation impact thresholds to adhere to CEQA requirements and providing guidance on conducting transportation studies in the City. The City began the process of implementing SB 743 in early 2020. The process began by collecting Baseline VMT data for the City, and then using the VMT data to consider options for the preferred VMT methodology, thresholds, and potential mitigation strategies. The City has also prepared Local Transportation Assessment Guidelines to inform the scope and analysis methodologies for future studies in the City. The remaining chapters of the report describe the City's implementation of SB 743 and the corresponding updates to transportation analysis requirements. (Fehr and Peers 2020)

3.9.3 Impact Analysis and Mitigation Measures

Thresholds of Significance

CEQA Guidelines Appendix G, Environmental Checklist Form, includes questions pertaining to transportation. The issues presented in the Environmental Checklist have been used as thresholds of significance in this section. Accordingly, the proposed project would have a significant adverse environmental impact if it would:

- Conflict with a program plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities (Refer to Impact 3.9-1)
- Would the project conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b) (Refer to Impact 3.9-2)
- Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment) (Refer to *Effects Found Not to Be Significant*, below)
- Result in inadequate emergency access (Refer to *Effects Found Not to Be Significant*, below)
- Result in cumulatively considerable impacts (Refer to Impact 3.9-3)

Methodology

Transportation impacts from the proposed project were evaluated in terms of how construction and operation could affect transportation conditions in the project area.

Effects Found Not to Be Significant

Hazards due to a geometric design feature. The proposed project would not include any design features or incompatible uses which may substantially increase hazards. Therefore, no impact would occur.

Inadequate emergency access. The proposed project would include a new access area around the existing outfall structures and easement. The proposed project would not include changes to adjacent roadways or other access points to the project site. The proposed project would occur within the existing VWRP or directly along and adjacent to its perimeter wall. Therefore, the implementation of the proposed project would not result in inadequate emergency access. Impacts would be less than significant.

Impact Analysis

Circulation System Policies and Plans

Impact 3.9-1: The proposed project could conflict with a program plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities.

Underground Retaining Wall / Outfall Structures

The County's General Plan Mobility Element contains goals, objectives, and policies related to the County's multi-modal circulation network, including street and highway system, vehicle trip reduction, bus and rail transit, bikeways, and pedestrian circulation. The Mobility Element plans for increased transportation efficiency through the coordination of land use planning with transportation planning by promoting concentrated development within the County near transit facilities. If a project does not implement a particular program, plan, or policy related to the above-mentioned goals, it would not necessarily result in a conflict, because some of these programs must be implemented by the County or other related agencies over time and over a broad area. Rather, a project would result in a conflict if it would preclude the County from implementing adopted transportation-related programs, plans, or policies.

The proposed project would include the construction of an underground retaining wall along the southwest side of the VWRP and upgrades to two outfall structures. The proposed project would take approximately 20 months to construct. During construction of the proposed project, construction workers would arrive at and depart from the project site via The Old Road. Table 2-2 summarizes the number of truck trips expected during project construction. The temporary increase in traffic from delivery trucks and worker commute would be limited to the 20-month construction period. Furthermore, operation of the VWRP would not change traffic volumes compared with existing conditions.

As a result, the proposed project would not conflict with any plans or policies regarding existing or proposed bicycle or pedestrian facilities in the project area. The proposed project would not involve or require roadway, pedestrian, or bicycle improvements along The Old Road or within the project vicinity and would not preclude the County from implementing adopted transportation-related programs, plans, or policies. The proposed project would not interfere with plans or policies related to transit service. Impacts would be less than significant.

Mitigation Measures

None Required

Significance Determination

Less than Significant Impact

CEQA Guidelines

Impact 3.9-2: The proposed project could conflict or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b).

Underground Retaining Wall / Outfall Structures

Vehicle miles traveled, or VMT, is a measure of the total number of miles driven to or from a development and is sometimes expressed as an average per trip or per person. As discussed in subsection 3.9.2, Regulatory Framework, CEQA Guidelines section 15064.3(b) shifts the focus for determining the

significance of transportation impacts from driver delay to an evaluation of a project's long-term operational changes in VMT through reduction of GHG emissions, creation of multimodal networks, and promotion of a mix of land uses (which in turn reduces vehicle trips). In addition, Section 15064.3 suggests that the analysis for VMT impacts applies mainly to land use and transportation projects. Furthermore, projects that generate or attract fewer than 110 operational trips per day would generally be exempt from further consideration with respect to VMT and impacts are assumed to be less than significant.

SCVSD, or their contractor, would coordinate with California Department of Transportation (Caltrans) Office of Permits to determine a designated truck route for construction trucks to transport construction equipment to and from the construction sites. The proposed project would comply with all local, state, and federal regulations related to the transport of materials to and from the site. The proposed project would include the construction of an underground retaining wall along the southwest side of the VWRP and upgrades to two existing outfall structures. Temporary construction impacts would increase traffic on The Old Road and I-5 accommodating worker commute and material delivery. The estimated maximum number of vehicles per day noted in Table 2-2 would be 52. This small number of trips would be easily accommodated within the regional roadway network. Assuming 20-mile round trips for these vehicles, temporary VMT would add approximately 1,040 miles per day during construction. However, per CEQA Guidelines Section 15064.3, since the proposed project is neither a land use nor a transportation project, and would not generate new operational trips, it can be assumed to have a less than significant impact with respect to VMT.

Mitigation Measures

None Required

Significance Determination

Less than Significant Impact

Cumulative Impacts

Impact 3.9-3: Concurrent construction and operation of the proposed project and related projects in the geographic scope could result in cumulative short-term and long-term impacts.

This section presents an analysis of the cumulative effects of the VWRP in combination with approved, under construction, or proposed development projects within one mile of the proposed project that could cause cumulatively considerable impacts. Chapter 3.0 Environmental Setting; Impact Analysis, and Mitigation Measures, describes the overall approach to the cumulative analysis. The cumulative projects consist of two new hotel buildings, one new water pipeline installed along Magic Mountain Parkway, the reconstruction and widening of the Old Road approximately 600 feet northeast of the project site, and three facility improvement projects within the VWRP. Significant cumulative impacts related to transportation could occur if the incremental impacts of the VWRP were to combine with the incremental impacts of one or more of the cumulative projects identified in Table 3-2.

The related projects would cumulatively generate additional trips and could increase VMT affecting the local and regional roadway network. As summarized above on Table 3.9-1, Magic Mountain Parkway and The Old Road are listed as major roadways within the project area that would be used by construction workers to arrive and depart from the project site. However, the construction-related traffic trips associated with the cumulative projects would be short-term and temporary in nature. These cumulative projects would

be similar to the proposed project in that the environmental documents prepared for the developments analyzed all impacts to traffic and transportation. Furthermore, the permanent increase in daily trips associated with new large-scale developments listed on Table 3-2 would not be expected to increase stress on traffic systems and transportation routes that would reduce the effectiveness of the circulation system.

The proposed project would include the construction of an underground retaining wall along the southwestern side of the VWRP and upgrades to two outfall structures. The proposed project would not involve or require roadway, pedestrian, or bicycle improvements along The Old Road or within the project vicinity. As a result, the proposed project and the combined impacts to traffic and transportation within the geographic scope would not be considered cumulatively significant and impacts would be less than significant.

Mitigation Measures

None Required

Significance Determination

Less than Significant Impact

3.9.4 References

California Governor's Office of Planning and Research (OPR). 2018. Technical Advisory on Evaluating Transportation Impacts in California. December 2018.

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3.10 Tribal Cultural Resources

This section evaluates potential impacts on tribal cultural resources. The analysis is based on a Sacred Lands File (SLF) search conducted by the California Native American Heritage Commission (NAHC), consultations between the Santa Clarita Valley Sanitation District (SCVSD) and Native American tribes pursuant to Assembly Bill (AB) 52, as well as the *Valencia Water Reclamation Plant Middle Section Retaining Wall Ground Improvement Project – Cultural Resources Assessment* (Cultural Report) prepared by ESA, that is provided in Appendix D of this Draft EIR. Native American consultation documentation related to AB 52 consultations is provided in Appendix G of this Draft EIR.

3.10.1 Environmental Setting

Ethnographic Setting

The project site is located within the territory traditionally occupied by the Tataviam. Tataviam territory was concentrated along the upper reaches of the Santa Clara River drainage between the San Fernando Valley on the south and Pastoria Creek in the Tehachapi Mountains to the north. Their territory also included east Piru Creek and the southern slopes of Sawmill and Liebre Mountains, and also extended into the southern end of the Antelope Valley (King and Blackburn 1978). Tataviam territory was bounded by the Gabrielino to the south, the Serrano to the east, the Kitanemuk to the northeast, the Emigdiano Chumash to the north, and the Ventureño Chumash to the west.

There are few historical sources regarding the Tataviam. The word “Tataviam” most likely came from a Kitanemuk word that may be roughly translated as “people of the south-facing slope,” due to their settlement on south-facing mountain slopes (King and Blackburn 1978). The Chumash referred to them as “Alliklik” (Kroeber 1925). What the Tataviam called themselves is not known. The Tataviam spoke a language that was part of the Takic branch of the Uto-Aztecan language family (King and Blackburn 1978). The language was related to that spoken by the Gabrielino and Kitanemuk.

Tataviam villages varied in size from larger centers with as many as 200 people, to smaller villages with only a few families (King and Blackburn 1978). At the time of Spanish contact, the Tataviam population is estimated to have been less than 1,000. Primary vegetable food sources included acorns, juniper berries, seeds, and yucca buds. Small game such as antelope and deer supplemented these foods. Trade networks between inland groups such as the Tataviam, the coastal regions, and desert regions enabled the trade of exotic materials such as shell, asphaltum, and steatite. The first European visit to Tataviam territory occurred in A.D. 1769 with the expedition of Gaspar de Portolá, and again in 1776 with the expedition of Friar Francisco Garcés.

Archival Research

SCCIC Records Search

A records search for the project was conducted on November 7, 2023, at the California Historical Resources Information System (CHRIS) South Central Coastal Information Center (SCCIC) housed at California State University, Fullerton. The records search results indicate that 28 cultural resources studies have been conducted within a 0.50-mile radius of the project site. Of the 28 previous studies, two (LA-10560 and -11143) have included the entirety or a portion of the project site, respectively. Nevertheless, these studies yielded negative results. The records search results indicate that six cultural resources have

been previously recorded within the 0.50-mile radius. Of the six resources, one is a protohistoric archaeological site/Chumash Native American village with burials and associated artifacts (CA-LAN-823); one is a historic-period archaeological site (P-19-4830) consisting of a building foundation; one is a historical landmark (P-19-186541) commemorating the 1842 gold discovery in Placerita Canyon; and three are historic architectural resources (P-19-190315, -192633, and -192643) consisting of two bridges and the Valencia Wall Reclamation Plant. Additional archaeological review indicates that seven cultural resources are also located in the immediate vicinity of the 0.50-mile radius. Of the seven resources, one is a historic-period archaeological site (CA-LAN-961) consisting of the Newhall Ranch Headquarters built by pioneer Henry Newhall in 1878; and six are prehistoric archaeological resources (CA-LAN-4834, -4837, -4838, -4844, -4898, and -4899) consisting of lithic scatters.

Sacred Lands File Search

The NAHC maintains a confidential SLF which contains sites of traditional, cultural, or religious value to the Native American community. The NAHC was contacted on November 20, 2023, to request a search of the SLF and responded in a letter dated December 12, 2023, indicating that the results were positive and to contact the Fernandeno Tataviam Band of Mission Indians for information.

Assembly Bill 52 Tribal Consultation

The SCVSD submitted notification and request to consult letters to 24 individuals and organizations on November 29, 2023, and January 3, 2024, pursuant to AB 52. In particular, AB 52 letters were sent via email to the following California Native American tribes and individuals:

- Santa Ynez Band of Chumash Indians
- Fernandeno Tataviam Band of Mission Indians
- Barbareño/Ventureño Band of Mission Indians
- Chumash Council of Bakersfield
- Coastal Band of the Chumash Nation
- Gabrieleno Band of Mission Indians – Kizh Nation
- Gabrieleno/Tongva San Gabriel Band of Mission Indians
- Gabrielino Tongva Indians of California Tribal Council
- Gabrielino/Tongva Nation
- Gabrielino-Tongva Tribe
- Northern Chumash Tribal Council
- San Fernando Band of Mission Indians
- San Luis Obispo County Chumash Council
- Torres Martinez Desert Cahuilla Indians

The SCVSD received a letter response on January 3, 2024, from the Santa Ynez Band of Chumash Indians indicating that they do not request consultation. On December 12, 2023, the Fernandeno Tataviam Band of Mission Indians (FTBMI) indicated that the project is located within the ancestral territory of the

FTBMI and is adjacent to the Santa Clara River. As such, the FTBMI indicated that the project has a level of sensitivity and requested full-time monitoring. No tribal cultural resources were identified during coordination; however, the FTBMI recommended mitigation measures to ensure tribal cultural resources are protected if found.

3.10.2 Regulatory Framework

State

Assembly Bill 52

Assembly Bill 52 (AB 52) was approved on September 25, 2014. The act amended California Public Resources Code (PRC) Section 5097.94, and added PRC Sections 21073, 21074, 21080.3.1, 21080.3.2, 21082.3, 21083.09, 21084.2, and 21084.3. The primary intent of AB 52 is to involve California Native American Tribes early in the environmental review process and to establish a category of resources related to Native Americans, known as tribal cultural resources, that require consideration under CEQA. PRC Section 21074(a)(1) and (2) defines tribal cultural resources as “sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American Tribe” that are either included or determined to be eligible for inclusion in the California Register or included in a local register of historical resources, or a resource that is determined to be a tribal cultural resource by a lead agency, in its discretion and supported by substantial evidence. A tribal cultural resource is further defined by PRC Section 21074(b) as a cultural landscape that meets the criteria of subdivision (a) to the extent that the landscape is geographically defined in terms of the size and scope of the landscape. PRC Section 21074(c) provides that a historical resource described in Section 21084.1, a unique archaeological resource as defined in subdivision (g) of Section 21083.2, or a “nonunique archaeological resource” as defined in subdivision (h) of Section 21083.2 may also be a tribal cultural resource if it conforms with the criteria of subdivision (a).

PRC Section 21080.3.1 requires that, within 14 days of a lead agency determining that an application for a project is complete, or a decision by a public agency to undertake a project, the lead agency provide formal notification to the designated contact, or a tribal representative, of California Native American Tribes that are traditionally and culturally affiliated with the geographic area of the project (as defined in PRC Section 21073) and who have requested in writing to be informed by the lead agency of projects within their geographic area of concern.¹ Tribes interested in consultation must respond in writing within 30 days from receipt of the lead agency’s formal notification and the lead agency must begin consultation within 30 days of receiving the tribe’s request for consultation.²

PRC Section 21080.3.2(a) identifies the following as potential consultation discussion topics: the type of environmental review necessary; the significance of tribal cultural resources; the significance of the project’s impacts on the tribal cultural resources; project alternatives or appropriate measures for preservation; and mitigation measures. Consultation is considered concluded when either: (1) the parties agree to measures to mitigate or avoid a significant effect, if a significant effect exists, on a tribal cultural resource; or (2) a party, acting in good faith and after reasonable effort, concludes that mutual agreement cannot be reached.³

¹ Public Resources Code, Section 21080.3.1(b) and (c).

² Public Resources Code, Sections 21080.3.1(d) and 21080.3.1(e)

³ Public Resources Code, Section 21080.3.2(b)

In addition to other CEQA provisions, the lead agency may certify an EIR or adopt a mitigated negative declaration for a project with a significant impact on an identified tribal cultural resource, only if a California Native American tribe has requested consultation pursuant to Section 21080.3.1 and has failed to provide comments to the lead agency, or requested a consultation but failed to engage in the consultation process, or the consultation process occurred and was concluded as described above, or if the California Native American tribe did not request consultation within 30 days.⁴

PRC Section 21082.3(c)(1) states that any information, including, but not limited to, the location, description, and use of the tribal cultural resources, that is submitted by a California Native American tribe during the environmental review process shall not be included in the environmental document or otherwise disclosed by the lead agency or any other public agency to the public without the prior consent of the tribe that provided the information. If the lead agency publishes any information submitted by a California Native American tribe during the consultation or environmental review process, that information shall be published in a confidential appendix to the environmental document unless the tribe that provided the information consents, in writing, to the disclosure of some or all of the information to the public.

Confidentiality does not apply to data or information that are, or become, publicly available, are already in lawful possession of the applicant before the provision of the information by the California Native American tribe, are independently developed by the applicant or the applicant's agents, or are lawfully obtained by the applicant from a third party that is not the lead agency, a California Native American tribe, or another public agency.⁵

3.10.3 Impact Analysis and Mitigation Measures

Thresholds of Significance

CEQA Guidelines Appendix G, Environmental Checklist Form, includes questions pertaining to tribal cultural resources. The issues presented in the Environmental Checklist have been used as thresholds of significance in this section. Accordingly, the proposed project would have a significant adverse environmental impact if it would:

- Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is: (Refer to Impact 3.10-1)
 - Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code Section 5020.1(k), or
 - A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.

⁴ Public Resources Code, Section 21082.3(d)(2) and (3)

⁵ Public Resources Code, Section 21082.3(c)(2)(B).

Methodology

The analysis is based on a SLF search conducted by the NAHC, consultations between the SCVSD and Native American tribes pursuant to AB 52, as well as the Cultural Report prepared by ESA. Specifically, SCVSD submitted notification and request to consult letters to Native American individuals and organizations and conducted follow-up Native American consultation.

Impact Analysis

Tribal Cultural Resource

Impact 3.10-1: The proposed project could cause a substantial adverse change in the significance of a tribal cultural resource.

Underground Retaining Wall and Outfall Structures

As previously discussed, the records search through the SCCIC indicates that one protohistoric archaeological site/Chumash Native American village with burials and associated artifacts is located within the 0.50-mile radius of the project site. The additional archaeological review indicates that six prehistoric archaeological resources consisting of lithic scatters are also located in the immediate vicinity of the 0.50-mile radius. The SLF through the NAHC yielded positive results and indicated contacting the Fernandeano Tataviam Band of Mission Indians for information.

The SCVSD submitted notification and request to consult letters to 24 individuals and organization. The Santa Ynez Band of Chumash Indians indicated that they do not request consultation. The FTBMI indicates that the project is located within their ancestral territory, that the project is adjacent to the Santa Clara River, which has a level of sensitivity and requested full time monitoring. No tribal cultural resources were identified during coordination; however, the FTBMI recommended mitigation measures (provided below) to ensure tribal cultural resources are protected if found.

Mitigation Measures

TCR-1: SCVSD shall retain a professional Tribal monitor procured by the Fernandeano Tataviam Band of Mission Indians to observe all ground-disturbing activities including, but not limited to, excavating, digging, trenching, plowing, drilling, tunneling, quarrying, grading, leveling, clearing, driving posts, auguring, blasting, stripping topsoil or similar activity. In the event that Native American cultural resources are discovered during project activities, all work in the immediate vicinity of the find (within a 60-foot buffer) shall cease and a qualified archaeologist meeting Secretary of Interior standards retained by the SCVSD shall assess the find. The archaeologist and Tribal monitor will have the authority to request ground disturbing activities cease within the area of a discovery. Work on the other portions of the project outside of the buffered area may continue during this assessment period.

TCR-2: SCVSD shall, in good faith, consult with the Fernandeano Tataviam Band of Mission Indians on the disposition and treatment of any Tribal Cultural Resource encountered during project implementation.

Significance Determination

Less than Significant Impact with Mitigation

Cumulative Impacts

Impact 3.10-2: Concurrent construction and operation of the proposed project and related projects in the geographic scope could result in cumulative short-term and long-term impacts.

As demonstrated above, prior to mitigation, the proposed project would not have a potentially significant impact on tribal cultural resources because there are no resources listed or determined eligible for listing, on the national, State, or local register of historical resources, and the Lead Agency determined that no resources were identified during AB 52 tribal consultation that are eligible for listing under the criteria in PRC Section 5024.1(c). Nevertheless, the AB 52 tribal consultation demonstrated that the proposed project has some level of sensitivity due to the proposed project being adjacent to the Santa Clara River.

As with the proposed project, each related project would also be required to engage in AB 52 consultation with Native American tribes in order to identify any tribal cultural resources that could potentially be impacted by the related project and to address potentially significant impacts, if identified. The related projects may require mitigation similar to that applicable to the proposed project, especially if those related projects are in areas with some level of sensitivity.

Accordingly, in light of the proposed project's mitigation measures and similar anticipated mitigation requirements for Projects in areas containing some level of sensitivity, the proposed project's contribution to cumulative impacts regarding tribal cultural resources would not be cumulatively considerable and cumulative impacts would be less than significant.

Mitigation Measures

None Required

Significance Determination

Less than Significant Impact

3.10.4 References

King, Chester, and Thomas C. Blackburn, Tataviam. 1978. *Handbook of North American Indians, Vol. 8: California*, edited by R. F. Heizer, pp. 535-537, Smithsonian Institution, Washington, D.C.

Kroeber, Alfred L. 1925. *Handbook of Indians of California*, Dover Publications, Inc., New York.

3.11 Wildfire

This section addresses existing wildfire conditions within the proposed project areas and evaluates the potential for the proposed project to exacerbate wildfire risk.

3.11.1 Environmental Setting

The Santa Clarita Valley (SCV) and surrounding unincorporated Los Angeles County, where the project is located, is susceptible to wildland fires because of its hilly terrain, dry weather conditions, and native vegetation. Steep slopes allow for the quick spread of flames during fires and pose difficulty for fire suppression due to access problems for firefighting equipment. Late summer and fall months are critical times of the year when the Santa Ana winds deliver hot, dry desert air into the region. Highly flammable plant communities consisting of variable mixtures of woody shrubs and herbaceous species, such as chaparral and sage vegetation, allow fires to spread easily on hillsides and in canyons. Fire hazards increase with any drought periods and are highest for structures located within and at the fringe of forested or wildland areas. (City of Santa Clarita 2022).

Fire Hazard Severity Zones

The California Department of Forestry and Fire Protection (CAL FIRE) is responsible for managing and protecting California's natural resources and has been charged with classifying the severity of fire hazard in areas of California. The Fire Hazard Severity Zones (FHSZ) Maps assign a hazard score based on the factors that influence fire likelihood and fire behavior, including fire history, existing and potential fuel (natural vegetation), predicted flame length, blowing embers, terrain, and typical fire weather for the area (CAL FIRE 2023). FHSZs are categorized as Moderate, High, and Very High, which are defined as:

- **Moderate:** Wildland areas supporting areas of typically low fire frequency and relatively modest fire behavior or developed/urbanized areas with a very high density of nonburnable surfaces including roadways, irrigated lawn/parks, and low total vegetation cover (less than 30 percent) that is highly fragmented and low in flammability (e.g., irrigated, manicured, managed vegetation).
- **High:** Wildland areas that support medium- to high-hazard fire behavior and roughly average burn probabilities or developed/urban areas, typically with moderate vegetation cover and more limited nonburnable cover. Vegetation cover typically ranges from 30 to 50 percent and is only partially fragmented.
- **Very High:** Wildland areas that support high to extreme fire behavior or developed/urban areas with high vegetation density (greater than 70 percent cover) and associated high fuel continuity. Actions taken within Very High FHSZs are subject to additional restrictions and requirements by the State and local governments.

In 2022, CAL FIRE released updated FHSZ Maps for both State Responsibility Areas (SRA) and Local Responsibility Areas (LRA). SRA's are the official boundaries where the State of California (through CAL FIRE) has the primary legal and financial responsibility for the prevention and suppression of wildland fires. CAL FIRE provides a basic level of wildland fire prevention and protection services for these designated areas. LRA's include incorporated cities and densely populated areas. Fire protection in these areas is typically provided by city fire departments, fire protection districts, and counties, and by CAL FIRE under contract to local governments (CAL FIRE 2023).

Within the City of Santa Clarita, there are Moderate, High and Very High FHSZ in the SRA. Over eighty percent of the Santa Clarita Valley is in a Very High Fire Hazard Severity Zone (VHFHSZ) which is the Los Angeles County Fire Department and CAL FIRE's highest classification for areas prone to wildfires (City of Santa Clarita 2022). The proposed project is located in an area designated by CAL FIRE as "VHFHSZ" in Local Responsibility Area (LRA) mapping, and as "Very High" in SRA mapping. (CAL FIRE 2023).

Fire Protection Services

The City of Santa Clarita contracts with the Los Angeles County Fire Department (LACFD) for fire services. The LACFD currently serves 60 cities and unincorporated communities. LACFD provides urban and wildland fire protection services, fire prevention services, emergency medical services, hazardous materials services, and urban search and rescue services throughout the city. The project site is currently served by the Los Angeles County Fire Department (LACFD) Battalion 6, which operates the Santa Clarita Fire Departments (LACFD 2023). The closest station to the project site is Station 76, located approximately 1.7 miles northwest at 27223 Henry Mayo Drive.

Emergency Access

The information in this section was derived from the Santa Clarita General Plan (City of Santa Clarita 2022). The SCV has freeway access along only three routes - Interstate 5 and State Route 14 going north and south, and State Route 126 going west - to use for evacuation purposes in the event of an emergency such as fire or earthquake. Residents in some areas, such as Stevenson Ranch and Castaic, will need alternate evacuation routes in case Interstate 5 is closed during an emergency incident. City and County staff have developed alternate evacuation routes along surface streets to provide alternate travel routes through and out of the SCV. Opening of the new Cross Valley Connector will also provide an effective east-west route for use in the event of an emergency. In addition to addressing evacuation routes, detour routes have been implemented through the SCV in the event that the local freeways are closed.

During the development review process, emergency access is evaluated for all pending development projects. Two means of ingress and egress are required for all major development projects, including subdivisions and commercial/industrial sites. Adequate road and driveway widths are required to provide access to fire trucks, along with turnouts and turnaround areas where deemed necessary. Traffic control during evacuation procedures will be based upon the nature of the emergency and the condition of the roads. Temporary signage will be placed by the City and County Public Works Departments to ensure that evacuation routes are clearly marked for motorists.

3.11.2 Regulatory Framework

This section describes federal, state, regional, and local wildfire regulations as they pertain to the proposed project.

State

California Public Resources Code

Fire Hazards Severity Zones – Public Resources Code sections 4201-4204

California Public Resources Code Sections 4201 through 4204 require CAL FIRE to prepare fire hazard severity zone maps for all lands within SRA's. Each zone is to embrace relatively homogeneous lands and shall be based on fuel loading, slope, fire weather, and other relevant factors present, including areas where winds have been identified as a major cause of wildfire spread. CAL FIRE adopted FHSZ maps for SRA's in November 2007.

California Department of Forestry and Fire Protection

Title 14 of the California Code of Regulations (CCR), Division 1.5, establishes regulations for CAL FIRE in SRAs where CAL FIRE is responsible for wildfire protection. These regulations constitute the basic wildland fire protection standards of the California Board of Forestry and Fire Protection. They have been prepared and adopted for the purpose of establishing minimum wildfire protection standards in conjunction with building, construction, and development in SRAs. Additionally, Title 14, Division 1.5, Chapter 7, Subchapter 2 sets forth the minimum standards for emergency access and egress (Article 2), signage (Article 3), water supply (Article 4), and fuel modification standards (Article 5) for lands within SRAs.

Emergency Services Act

Under the Emergency Services Act, Government Code Section 8550, et seq., the state developed an emergency response plan to coordinate emergency services provided by federal, state, and local agencies. Rapid response to incidents involving wildfire and other natural and/or human-caused incidents is an important part of the plan, which is administered by the Governor's Office of Emergency Services. The office coordinates the responses of other agencies, including the California Environmental Protection Agency, the California Highway Patrol, regional water quality control boards, air quality management districts, and county disaster response offices.

International Building Code

In January of 2008, California officially switched from the Uniform Building Code to the International Building Code. The International Building Code specifies construction standards to be used in urban interface and wildland areas where there is an elevated threat of fire.

Regional

County of Los Angeles Fire Code

Chapter 7A of the California Building Code is adopted by reference in the County of Los Angeles Code and establishes Materials and Construction Methods for Exterior Wildfire Exposure. These standards apply to building materials, systems, and/or assemblies used in the exterior design and construction of new buildings, and to additions, alterations or repairs made to existing buildings erected, constructed, or moved with a Wildland-Urban Interface Area. The City of Santa Clarita has adopted these standards by reference, in Section 22.01 of its Municipal Code. Compliance procedures for new development projects involve submittal and approval of a Fire Protection Plan that describes ways to minimize and mitigate potential for loss from wildfire exposure. Key elements of a Fire Protection Plan include structural design measures to prevent or resist ignition from embers or other sources, applicable to roofing, vents, exterior

wall materials, open roof eaves, enclosed roof eaves and roof eaves soffits, exterior windows and doors, exterior porch ceilings, decking, floor projections/underfloor protection/underside of appendages, and accessory structures.

County of Los Angeles Operational Area Emergency Operations Plan

The County of Los Angeles Operational Area Emergency Operations Plan (OAEOP) addresses the County's planned response to extraordinary emergency situations impacting unincorporated areas of the County as well as Operational Area Coordination. This plan does not apply to day-to-day emergency incidents, or the established procedures used to respond to and manage such emergencies. Rather, the plan focuses on the operational concepts related to all-hazards emergency response and recovery, and facilitates multiagency and multijurisdictional coordination during emergency operations, public information functions, resource management, and recovery efforts (Los Angeles County 2023).

Los Angeles County 2035 General Plan

Local jurisdictions, such as the County, have the authority and responsibility to regulate hazards, including wildfires through their policy power and decision-making authority. The Los Angeles County General Plan 2035 provides the fundamental basis for the County's hazards policies, and represents the basic community values, ideals, and aspirations to govern a shared environment through 2035 (LA County 2022). The applicable measures of the Los Angeles County General Plan Safety Element are specified below as being the most current standards.

Goal S 4: An effective regulatory system that prevents or minimizes personal injury, loss of life, and property damage due to fire hazards.

Policy S 4.4: Reduce the risk of wildland fire hazards through meeting minimum State and local regulations for fire-resistant building materials, vegetation management, fuel modification, and other fire hazard reduction programs.

Policy S 4.7: Discourage building mid-slope, on ridgelines and on hilltops, and employ adequate setbacks on and below slopes to reduce risk from wildfires and post-fire, rainfall-induced landslides and debris flows.

Policy S 4.8: Support the retrofitting of existing structures in FHSZs to meet current safety regulations, such as the building and fire code, to help reduce the risk of structural and human loss due to wildfire.

3.11.3 Impact Analysis and Mitigation Measures

Thresholds of Significance

CEQA Guidelines Appendix G, Environmental Checklist Form, includes questions pertaining to wildfire. The issues presented in the Environmental Checklist have been used as thresholds of significance in this section. Accordingly, the proposed project would have a significant adverse environmental impact if it would:

- 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. (Refer to Impact 3.11-1)

- Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes. (Refer to Impact 3.11-2)
- Substantially impair an adopted emergency response plan or emergency evacuation plan. (Refer to Section, *Impacts Found to be Less than Significant*, below)
- 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. (Refer to Section, *Impacts Found to be Less than Significant*, below)

Methodology

Wildfire impacts from the proposed project were evaluated in terms of how construction and operation could affect the risk of wildfire. Existing wildfire conditions within the proposed project areas were identified through desktop review of CAL FIRE FHSZ Maps, locations of any established evacuation routes, and various existing laws, regulations, and policies related to wildfire and fire prevention.

Impacts Found to be Less than Significant

Based on the project site characteristics and location, the Initial Study prepared for the proposed project, and attached as Appendix A, determine that the following thresholds would result in no impact or less than significant impact as described below:

Emergency Response or Evaluation Plan. The project site is located along the perimeter of the existing VWRP that is well served by a roadway network. The proposed project would not include changes to adjacent roadways or other access points to the project site. The majority of construction activities for the project would be confined within the VWRP and the southwestern boundary of the VWRP. Construction activities may temporarily affect access on portions of the adjacent street during certain periods of the day where construction vehicles are entering or exiting the VWRP, however, these impacts would be temporary and would not substantially impair an adopted emergency response plan or emergency evacuation plan. Therefore, no further analysis of this environmental issue will be provided.

Installation or Maintenance of Associated Infrastructure. The proposed project would include a new access/maintenance area near the existing outfall structures to allow for continued vegetation clearance. No other infrastructure such as roads, fuel breaks, emergency water sources, power lines or other utilities would be required that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment. Impacts would be considered less than significant, and no further analysis of this environmental issue will be provided.

Impact Analysis

Wildfire Risks

Impact 3.11-1: The proposed project could, 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.

Underground Retaining Wall and Outfall Structures

The proposed project is located in an area designated by CAL FIRE as “VHFHSZ” in LRA mapping, and as “High” in SRA mapping. The proposed project would include the construction of an underground retaining wall along the southwestern boundary of the proposed project site to support the existing middle

section retaining wall along the southwest side of the VWRP. The proposed project area and surrounding communities are in an area of high wildfire risk due to the presence of vegetated slopes and occurrences of high winds. During construction of the underground retaining wall improvements, there would be increased human activity and ignition sources, including equipment that could create sparks, be a source of heat, or leak flammable materials on the project site. The proposed project is not a residential project or commercial business project that would potentially expose a substantial number of occupants to pollutants from fire. The proposed project would require approximately 10 construction workers per day and no new employees would be required to operate the proposed project.

Construction of the proposed project would require, but not be limited to, the equipment listed in Table 2-1. Construction staging areas would be identified by the contractor for laydown and soil stockpiling within the VWRP and along the project impact areas, if needed. Equipment and vehicle staging would be determined prior to construction and would be placed within the VWRP facility. The proposed project would include construction of an underground retaining wall and riprap extension along the southern portion of the project site, as well as upgrades to two existing outfall structures. The proposed project would not result in the use of electricity during operation and would not require new natural gas services connections, or result in the need for new natural gas supplies or infrastructure.

The proposed project is not a residential project or commercial business project that would expose a substantial number of occupants to fire hazards. The retaining wall would be underground and the existing outfall structures are also underground and requiring upgrades. The proposed project would not include habitable structures. The risks related to wildfire that could expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire, would only occur during construction. Therefore, these risks would only be temporary. While the proposed project would comply with all applicable fire codes and provide project design features for fire suppression, the proposed project would be located in a VHFHSZ, as statutorily designated by CAL FIRE. Therefore, implementation of Mitigation Measures WF-1 and WF-2, would help reduce impacts to less than significant.

Mitigation Measures

WF-1: Fire Prevention Measures. To reduce fire risk and maintain a fire safe worksite, the following Fire Prevention Measures would be implemented for the VWRP construction activities:

- Minimize combustible and flammable materials storage on site.
- Store any combustible or flammable materials away from ignition sources.
- Clear parking areas and fuel or oil storage areas of all grass and brush by a distance of at least 30 feet.
- Keep evacuation routes free of obstructions.
- Label all containers as to contents and store in the same location as flammable or combustible liquids.
- Perform hot works according to fire safe practices and guidelines in a controlled environment and with fire suppression equipment at the job site.
- Dispose of combustible waste promptly and according to applicable laws and regulations.
- Report and repair all fuel leaks without delay.

- Avoid overloading circuits and/or reliance on extension cords where other upgrades would be safer.
- Turn off and unplug electrical equipment when not in use.
- Restrict use of chainsaws, chippers, vegetation masticators, grinders, drill rigs, tractors, torches, and explosives to outside of the official fire season to the greatest extent feasible. When the above tools are used, water tenders equipped with hoses, shovels, Pulaskis, and axes shall easily be accessible to personnel.
- Equip vehicles with a 3A-40BC Dry Chemical Fire Extinguisher, a 5-gallon backpack pump fire extinguisher, and a 48-inch round point shovel.

WF-2: Red Flag Warning. Construction activities would be limited and precautions may be taken on site during periods of a Red Flag Warning, when conditions such as low humidity and high winds are present. Upon announcement of a Red Flag Warning, red flags will be prominently displayed at the VWRP Facilities entrance gate indicating to employees and contractors that restrictions are in place. Additionally, any “hot work” (work that could result in ignition sources or increase fire risk) or work conducted in close proximity to vegetation would be prohibited during Red Flag Warning conditions. Areas may be evacuated where personnel may be exposed to higher risks. If vehicles are required to be used during Red Flag Warning conditions, vehicles shall remain on paved roads.

During significant emergency situations, an evacuation notice may be issued by the site manager or site safety officer. When an evacuation has been called, all site employees must gather at the designated assembly area and the site safety officer will account for all personnel. Once all employees are accounted for, vehicles will safely convoy from the site to safe zones, which are generally areas off site, away from the threat.

Significance Determination

Less than Significant Impact with Mitigation

Downstream Flooding or Landslides risks

Impact 3.11-2: The proposed project could expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes.

Underground Retaining Wall and Outfall Structures

The underground retaining wall improvements would result in long-term protection of the middle section of the VWRP facility boundary along the Santa Clara River in case of a future Capital Flood scour event. Therefore, the underground retaining wall improvements would increase flood protection along the VWRP facility. Upgrades to the outfall structures would help maintain water flow through the outfall and ensure future maintenance activities. Depending on the severity of the event, a wildfire on the proposed project site could damage and/or destroy some or all of the site’s vegetation and groundcover. While the damaged vegetation would likely recover over time from such an incident, the interim period when vegetation is not adequately present could present heightened risk from erosion and other hazards prior to full recovery. Soils on the proposed project site and the depth to the groundwater also provide little potential for liquefaction ground failures such as lateral spreading, subsidence, or ground collapse to occur. Further, the retaining wall and outfall improvements would be located below ground and would not be located within a landslide hazard zone.

The proposed project does not include new housing, nor would it result in substantial unplanned population growth. Compliance with applicable regulatory requirements would not expose people or structures to significant downslope or downstream flooding or landslide risks resulting from runoff, postfire slope instability, or drainage changes. Therefore, it would not place people or structures in an area with risks related to post-wildfire flooding or landslides, and impacts would be less than significant.

Mitigation Measures

None Required

Significance Determination

Less than Significant Impact

Cumulative Impacts

Impact 3.11-3: Concurrent construction and operation of the proposed project and related projects in the geographic scope could result in cumulative short-term and long-term impacts.

This section presents an analysis of the cumulative effects of the VWRP in combination with approved, under construction, or proposed development projects within one mile of the proposed project that could cause cumulatively considerable impacts. Chapter 3.0 Environmental Setting; Impact Analysis, and Mitigation Measures, describes the overall approach to the cumulative analysis. The cumulative projects consist of two new hotel buildings, one new water pipeline installed along Magic Mountain Parkway, the reconstruction and widening of the Old Road approximately 600 feet northeast of the project site, and three facility improvement projects within the VWRP. Significant cumulative impacts related to wildfire could occur if the incremental impacts of the VWRP were to combine with the incremental impacts of one or more of the cumulative projects identified in Table 3-2.

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.

The VWRP is within a very high fire hazard severity zone that is within the State Responsibility Area. The cumulative projects listed in Table 3-2 are located in or near high to very high fire hazard severity zones (CAL FIRE 2023). As described in Impact 3.11-1, the risks related to wildfire that could expose VWRP occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire, would only occur during construction of the proposed project. Therefore, these risks would only be temporary. Additionally, implementation of Mitigation Measures WF-1 and WF-2 would reduce fire risk and maintain a fire safe worksite. Therefore, there would be less-than-significant effects of the VWRP combined with the potential residual effects of cumulative projects. Accordingly, no significant cumulative impact with respect to wildland fires would result.

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

The VWRP is within a very high fire hazard severity zone that is within the State Responsibility Area. As discussed previously, the following cumulative projects listed in Table 3-2 are located in or near high to very high fire hazard severity zones.

For cumulative projects that are in or near a high to very high fire hazard severity zone, development could increase the risk of wildland fire by introducing new sources of ignition (i.e., vehicles and residents). Wildland fires could lead to additional impacts such as slope instability and downstream flooding. Cumulative projects would be required to comply with California Building Code and local building code requirements related to emergency planning and preparedness, fire service features, building services and systems, access requirements, water supply, fire and smoke protection features, building materials, construction requirements, defensible space and vegetation management, and specialized uses involving flammable and hazardous materials. Code requirements have been developed over many decades to reduce fire risks, and compliance with such requirements would be a condition of approval for any cumulative project that may be developed. Therefore, implementation of these standard requirements would reduce potential impacts of accidental ignitions emanating from project sites and of wildland fires encroaching onto project sites from adjacent areas.

As discussed under Impacts 3.11-1 and 3.11-2, implementation of the proposed project would expose people and structures to increased risk of wildland fire and other adverse impacts attributable to wildfire during construction. However, implementation of the previously discussed Mitigation Measures WF-1 and WF-2 would reduce fire risk. Accordingly, the proposed project would not make a cumulatively considerable contribution to wildfire risks. Impacts would be less than significant with mitigation.

Mitigation Measures

Implement Mitigation Measures WF-1 and WF-2

Significance Determination

Less than Significant Impact with Mitigation

3.11.4 References

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CHAPTER 4

Other CEQA Considerations and Growth Inducement

4.1 Significant Irreversible Environmental Changes

CEQA Guidelines 21100(b)(2) and 15126.2(b) require that any significant effect on the environment that would be irreversible must be identified. A project would generally result in a significant irreversible impact if:

- Primary and secondary impacts (such as roadway improvements that provide access to previously inaccessible areas, etc.) would commit future generations to similar uses.
- The project would involve a large commitment of nonrenewable resources.
- The project would involve uses in which irreversible damage could result from any potential environmental accidents associated with the project.

Construction and operation of the proposed project would require the use and consumption of nonrenewable resources, such as steel and other metals. Renewable resources, such as lumber and other wood byproducts, would also be used. Unlike renewable resources, nonrenewable resources cannot be regenerated over time. Construction of facilities would require the commitment of a relatively small amount of building materials. The small quantity of building materials used during implementation of the proposed project would not result in a significant impact because these types of resources are anticipated to be in adequate supply into the foreseeable future.

Energy would be consumed during construction of the proposed project and would not require energy consumption during operations. Nonrenewable resources and energy would also be consumed during the manufacturing and transportation of building materials, preparation of the site, and construction and site restoration activities. The proposed project would not result in the wasteful, inefficient or unnecessary consumption of energy during construction or operation. The proposed project would result in the irretrievable and irreversible commitment of energy resources in the form of diesel fuel, gasoline, and electricity. However, these types of resources are anticipated to be in adequate supply into the foreseeable future. Therefore, impacts due to these irretrievable and irreversible commitments of resources are considered less than significant.

4.2 Growth Inducement

4.2.1 Overview

CEQA Guidelines Section 15126.2(d) requires that an EIR discuss the potential growth-inducing impacts of a proposed project. The *CEQA Guidelines* provide the following guidance for such discussion:

Discuss the ways in which the proposed project could foster economic or population growth, or the construction of additional housing, either directly or indirectly, in the surrounding environment. Included in this are projects which would remove obstacles to population growth (a major expansion of a wastewater treatment plant might, for example, allow for more construction in service areas). Increases in the population may tax existing community service facilities, requiring construction of new facilities that could cause significant environmental effects. Also discuss the characteristic of some projects which may encourage and facilitate other activities that could significantly affect the environment, either individually or cumulatively. It must not be assumed that growth in any area is necessarily beneficial, detrimental, or of little significance to the environment.

A project can have direct and/or indirect growth-inducement potential. Direct growth inducement would result if a project involves construction of new housing. A project can have indirect growth-inducement potential if it establishes substantial new permanent employment opportunities (e.g., commercial, industrial, or governmental enterprises) or if it involves a construction effort with substantial short-term employment opportunities that indirectly stimulates the need for additional housing and services to support the new employment demand. Similarly, under CEQA, a project would indirectly induce growth if it removes an obstacle to additional growth and development, such as removing a constraint on a required public service.

The proposed project involves improvements to retaining wall and outfall structures that are part of the existing VWRP. The proposed project would not directly induce new residential development or result in population growth in the service area. The proposed Project would include the construction of an underground retaining wall along the southwestern boundary of the proposed project site to support the existing retaining wall. The proposed project is not intended to facilitate growth, but instead achieve long-term protection of the middle section of the VWRP boundary and allow uninterrupted operation of the VWRP. Impacts related to growth would be considered less than significant and no mitigation would be required.

Growth inducement itself is not necessarily an adverse environmental impact. It is the potential consequences of growth, the secondary effects of growth, which may result in environmental impacts. Potential secondary effects of growth include increased demand on other public services; increased traffic and noise; degradation of air quality; loss of plant and animal habitats; and the conversion of agriculture and open space to developed uses. Growth inducement may result in adverse impacts if the growth is not consistent with the land use plans and growth management plans and policies for the area, as “disorderly” growth could indirectly result in additional adverse environmental impacts. Thus, it is important to assess the degree to which the growth accommodated by a project would or would not be consistent with applicable land use plans.

As stated in Chapter 2, *Project Description*, the proposed project would involve construction of an underground retaining wall to reinforce the existing middle section retaining wall and upgrade two existing outfall structures associated with the VWRP. The proposed improvements are needed to achieve long-term protection of the middle section of the VWRP boundary along the Santa Clara River in case of a future Capital Flood scour event and a design level earthquake. As such, this chapter reviews the population and economic growth projections for the VWRP Project area and evaluates the potential for the proposed project to induce growth.

4.2.2 Project Area Population and Economic Growth Projections

Direct Population-Generating Uses

The proposed project would not include development of new housing or other population-generating uses that would directly induce population growth or attract a substantial number of workers. The proposed project would impact an area just outside of the VWRP and include reinforcement of the existing middle section retaining wall along the southwest side of the VWRP and upgrades to two existing outfall structures. The proposed project would not directly induce new residential development or result in population growth in the service area. There would be no impact, and no mitigation would be required.

Economic Growth Inducement

The proposed project would not include housing or commercial/industrial components. The proposed project would not provide for increased employment opportunity such that there would be any potential for economic growth.

4.2.3 Growth Inducement Potential

Implementation of the proposed project would not have a direct growth inducement effect, as it does not propose development of new housing that would attract additional population to the area. Further, implementation of the proposed project would not result in substantial permanent employment that could indirectly induce population growth. Although construction activities would create some short-term construction employment opportunities over the duration of construction activities, the amount of opportunities created would not require persons outside of the existing Los Angeles County work force. Further, no new permanent employees would be required for operation of the proposed improvements.

The objectives of the proposed project are to achieve long-term protection of the middle section of the VWRP boundary along the Santa Clara River; construct a structure that can withstand Capital Flood scour levels and a design level earthquake with limited impact to the VWRP area; allow uninterrupted operation of the VWRP with controlled impact from construction activities; and maintain permanent improvements within the property limits of the VWRP.

Continuous operations of the VWRP are critical for the ability of the SCVSD to provide essential public service to its customers, and construction activities would allow for uninterrupted operation of the VWRP. Implementation of the proposed project would not create a new or expanded water supply that could create an indirect growth inducement potential. Following construction of the proposed project, temporarily impacted areas would be returned pre-project conditions and operation of the VWRP would not be impacted. Therefore, the proposed project would not directly or indirectly induce growth.

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CHAPTER 5

Alternatives

5.1 CEQA Requirements

This chapter presents the California Environmental Quality Act (CEQA) alternatives analysis for the Middle Section Retaining Wall Ground Improvement Project (proposed project). The overarching purpose of the project is to achieve long-term protection of the middle section of the Valencia Water Reclamation Plant (VWRP) boundary along the Santa Clara River in case of a future Capital Flood scour event. As described in Section 2.3, *Project Objectives*, the project objectives are to develop a project that:

- Construct a structure that can withstand Capital Flood scour levels (PACE, 2016) with limited impact to the VWRP area;
- Construct a structure that can withstand a design level earthquake following the Capital Flood scour levels with limited impact to the VWRP area;
- Allow uninterrupted VWRP operation with controlled impact from construction activities;
- Achieve effective tie-ins with the existing deep-scour protection retaining wall on the south and north ends of the proposed construction;
- Improve the condition of discharge outfall sections that will be affected by construction of the proposed structure;
- Maintain permanent improvements within the property limits of the VWRP;
- Minimize permanent impacts to the vegetated area to the riverside of the existing retaining wall;
- Minimize temporary construction impacts to the existing vegetated area riverside of the existing retaining wall;
- Minimize the disturbance of recently revegetated area alongside the Advanced Water Treatment Facility retaining wall; and
- Develop a cost-effective solution.

The CEQA *Guidelines* Section 15126.6(a), state that an environmental impact report (EIR) must describe and evaluate a reasonable range of alternatives to the project that would feasibly attain most of the project's basic objectives but would avoid or substantially lessen any identified significant adverse environmental effects of the project. Specifically, the CEQA *Guidelines* (Section 15126.6) set forth the following criteria for selecting and evaluating alternatives:

- **Identifying Alternatives.** The selection of alternatives is limited to those that would avoid or substantially lessen any of the significant environmental effects of the project, are feasible, and would attain most of the basic objectives of the project. Factors that may be considered when addressing the feasibility of an alternative include site suitability, availability of infrastructure,

general plan consistency, other plans or regulatory limitations, jurisdictional boundaries, economic viability, and whether the proponent can reasonably acquire, control, or otherwise have access to an alternative site. An EIR need not consider an alternative whose impact cannot be reasonably ascertained and whose implementation is remote and speculative. The specific alternative of “no project” must also be evaluated.

- **Range of Alternatives.** An EIR need not consider every conceivable alternative but must consider and discuss a reasonable range of feasible alternatives in a manner that will foster informed decision-making and public participation. The “rule of reason” governs the selection and consideration of EIR alternatives, requiring that an EIR set forth only those alternatives necessary to permit a reasoned choice. The lead agency (SCVSD) is responsible for selecting a range of project alternatives to be examined and for disclosing its reasons for the selection of the alternatives.
- **Evaluation of Alternatives.** EIRs are required to include sufficient information about each alternative to allow meaningful evaluation, analysis, and comparison with the project. Matrices may be used to display the major characteristics and the potential environmental effects of each alternative. If an alternative would cause one or more significant effects that would not result from the project as proposed, the significant effects of the alternative must be discussed, but in less detail than the significant effects of the project.

5.1.1 Feasibility

CEQA *Guidelines* Section 15364 define feasibility as “... capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, legal, social, and technological factors.” The alternatives screening analysis mainly is governed by what CEQA terms the “rule of reason,” meaning that the analysis should remain focused not on every possible eventuality but rather on the alternatives necessary to permit a reasoned choice. Alternatives that are potentially feasible, while still meeting most project objectives, are to be fully analyzed in the EIR if they also reduce a project’s environmental impacts.

According to CEQA *Guidelines* Section 15126.6(f)(1), the factors that may be considered when addressing the potential feasibility of alternatives include site suitability, economic viability, availability of infrastructure, general plan consistency, other plans or other regulatory limitations, jurisdictional boundaries, and the project proponent’s control over alternative sites.

5.1.2 Potential to Eliminate Significant Environmental Effects

A key CEQA requirement for an alternative is that it must have the potential to “avoid or substantially lessen any of the significant effects of the project” (CEQA *Guidelines* Section 15126.6[a]). At the screening stage, evaluating or quantifying all the impacts of the alternatives in comparison to the project would not be possible. However, identifying elements of an alternative that are likely to be the sources of impacts and relating them, to the extent possible, to general conditions in the project area would be possible.

Potentially significant environmental impacts that would result from the proposed project are evaluated in Chapter 3, *Environmental Setting, Impacts, and Mitigation Measures*, of this EIR, as well as the Initial Study (Appendix A). With implementation of standard conditions and requirements, as well as mitigation measures identified for each resource area significantly impacted, all of the potentially significant impacts resulting from the proposed project would be reduced to a less-than-significant level. A summary of the significance of the greatest impacts for each environmental resource analyzed in Chapter 3 is presented in

Table 5-1. Specific impacts and all mitigation measures are provided in Table ES-1 in the Executive Summary of this Draft EIR.

TABLE 5-1
SUMMARY OF PROPOSED PROJECT IMPACT ANALYSIS

Environmental Resource	Proposed Project Significance Determination
Aesthetics	LTS
Agriculture and Forestry Resources	NI
Air Quality	LTS
Biological Resources	LTSM
Cultural Resources	LTSM
Energy	LTS
Geology, Soils, and Paleontology	LTSM
Greenhouse Gas Emissions	LTS
Hazards and Hazardous Materials	LTSM
Hydrology and Water Quality	LTS
Land Use and Planning	NI
Mineral Resources	NI
Noise and Vibration	LTS
Population and Housing	NI
Public Services	LTS
Recreation	NI
Transportation	LTS
Tribal Cultural Resources	LTSM
Utilities and Service Systems	LTS
Wildfire	LTSM
NOTES:	
LTS = Less than Significant	
LTSM = Less than Significant with Mitigation	
SUI = Significant and Unavoidable Impact	
NI = No Impact	

5.2 Alternatives Screening and Selection

As described below, the alternatives were selected for their ability to meet the project's objectives, as well as the CEQA requirements of reducing or avoiding significant environmental impacts. An Alternative Selection Report was prepared in 2023 (Geosyntec 2023) and assessed three possible alternatives for a new structure along the wall's middle section that could protect the VWRP during Capital Flood scour levels and a design level earthquake (see **Appendix H**). The main objectives of the alternatives development process include achieving long-term protection of the middle section of the VWRP boundary along the Santa Clara River; constructing a structure that can withstand Capital Flood scour levels and a design level earthquake with limited impact to the VWRP area; allow uninterrupted VWRP operation with controlled

impact from construction activities; and to maintain permanent improvements within the property limits of the VWRP. In addition to the alternative development objectives, several considerations were taken into account in developing possible improvement alternatives (Geosyntec 2023):

- The existing VWRP structures should be protected as much as possible. The VWRP is a 24/7 operation that does not allow significant shutting down of systems.
- The roadway behind the existing retaining wall along the middle section is a heavy utility corridor, thus any subsurface work in that area is effectively impossible without major impacts to VWRP operation.
- The improvements should try to minimize the impact to the vegetated area between the retaining wall and the river, both in their permanent form and impact during construction.
- The footprint of permanent improvements should be restricted to the VWRP's property line as much as possible.
- The improvements, once completed, should be buried as much as possible, with soil cover consideration for revegetation of the area impacted by improvements.
- The improvements will need to tie into the existing deep-buried mechanically stabilized earth (MSE) wall on the southwest corner of the VWRP and the more recently cement deep-soil mixing buried retaining wall along the Advanced Water Treatment Facility at the north end of the improvement area.
- Construction access for improvement work should be achieved through the middle section and not rely on access around the north end of the VWRP.
- The post-scour geometry of the improved area should allow a level of access to the bottom of the existing MSE wall for maintenance.

The Alternative Selection Report focused on the underground wall improvement location where the proposed project is being constructed, but also identified two additional alternatives. One alternative included reconstruction of the existing MSE wall and a second alternative included wall improvements within the VWRP-side of the wall (instead of the riverside).

5.3 CEQA Alternatives

5.3.1 Alternatives Rejected from Further Consideration

Replacement of Existing MSE Wall

This alternative, as discussed in the Alternative Selection Report (Geosyntec 2023), includes the proposed improvements to be constructed along the alignment of the existing MSE wall. This alternative would require the deconstruction of the existing wall and would require extensive temporary shoring to protect the existing utility corridor behind the MSE-reinforced soil zone and would still result in the disturbance of the vegetated area along the riverside of the MSE wall. Additionally, to construct along the center portion of the wall, this alternative would likely require the reconstruction of a cast-in-place wall around the Equalization Tank. Other VWRP facilities would also be impacted. Since this alternative would increase impacts to the VWRP operations and would not result in the reduction of any environmental impacts associated with the proposed project, this alternative is being rejected from further consideration.

5.3.2 Project Alternatives

The alternatives selected for analysis are as follows:

- Alternative 1: No Project Alternative
- Alternative 2: VWRP-Side Improvement

Alternative 1: No Project Alternative

CEQA *Guidelines* Section 15126.6 requires an analysis of a “no project” alternative. Specifically, the CEQA *Guidelines* state that “[t]he purpose of describing and analyzing a ‘no project’ alternative is to allow decision makers to compare the impacts of approving the proposed project with the impacts of not approving the proposed project.” The “no project” alternative is not necessarily the same as the baseline used to determine the environmental impacts of the proposed program. The analysis of the no project alternative includes the existing baseline environmental conditions as well as “what would be reasonably expected to occur in the foreseeable future if the project were not approved, based on current plans and consistent with available infrastructure and community services” (CEQA *Guidelines* Section 15126.6 (e)(2)). The analysis of impacts related to the no project alternative includes projecting what would reasonably be expected to occur “in the foreseeable future if the project were not approved.”

Under Alternative 1: No Project Alternative, none of the actions described in Chapter 2, including reinforcement of the existing middle section retaining wall along the southwest side of the VWRP, upgrades to two existing outfall structures, or the addition of riprap along the southern portion of the VWRP wall would occur. Scour of the Santa Clara River under a future Capital Flood event may continue to erode materials to the point that VWRP facilities may be damaged or destroyed, thereby disrupting essential services and adversely affecting public health and the environment, if the project is not implemented.

Ability to Meet Project Objectives

The No Project Alternative would fail to meet most of the project objectives. As described in Chapter 2, *Project Description*, previous studies have identified that scour of the Santa Clara River under a Capital Flood may erode materials to the point that facilities of the VWRP may be damaged or destroyed. Specifically, an approximately 1000-foot-long middle section of the facility boundary along the river has been assessed to provide inadequate scour protection, to the point that the existing property edge retaining wall may be undermined by as much as 25 to 35 feet. The No Project Alternative would not construct a structure that can withstand Capital Flood scour levels or a design level earthquake. The No Project Alternative would meet the objectives to allow uninterrupted VWRP operation and minimize permanent impacts to the vegetated area to the riverside of the existing retaining wall and the recently revegetated area alongside the Advanced Water Treatment Facility retaining wall; however, it would not help to achieve long-term protection of the middle section of the VWRP and would fail to meet any of the flood control objectives.

Impact Analysis

The proposed project would result in a reduced impact when compared to the proposed project due to the fact that no construction would occur. The No Project Alternative would not construct the underground retaining wall, would not improve the two outfall structures, and would not add riprap to the southern

portion of the middle section wall. In addition, no permanent or temporary impacts to vegetation and areas southwest of the VWRP would occur. Alternative 1: No Project would result in fewer impacts for all resource areas when compared to the proposed project.

Alternative 2: VWRP-Side Improvement

This alternative, as discussed in the Alternative Selection Report (Geosyntec 2023), includes the proposed improvements to be constructed behind the existing MSE wall within the VWRP. The area behind the existing MSE wall accommodates a utility corridor and several process structures that support VWRP operations. This alternative would require a significant undertaking in utility and process structure relocation within the VWRP property boundaries, but the VWRP has no practical space or land for relocating these impacted utilities and process structures. Additionally, the utility relocation, impacts to existing process structures, and the need to create space for construction would have a significant impact on VWRP operations, as summarized in **Table 5-2** (Geosyntec 2023). Consequently, these operational impacts would significantly increase the risk of operational shutdowns, which would disrupt essential wastewater treatment services and adversely affect public health and the environment. Although Alternative 2 would minimize impacts to the vegetated area riverside of the MSE wall, this alternative would result in the least efficient scour protection approach from an engineering perspective. Alternative 2 is considered “not feasible” based on an engineering evaluation.

TABLE 5-2
SUMMARY OF VWRP STRUCTURES EXPECTED TO BE IMPACTED BY CONSTRUCTION OF ALTERNATIVE 2

Existing Structure within VWRP	Purpose	Impact from Alternative 2
Secondary Treatment		
Secondary Polymer Station	Polymer is used to enhance solids settling in the secondary clarifiers.	Partial or full relocation/reconstruction
Secondary Clarifiers	Settle biological solids that are generated during biological treatment of wastewater.	All fourteen clarifiers would be impacted by Alternative 2
Secondary Effluent line	Transports secondary effluent from clarifiers to the filters.	Partial or full relocation/reconstruction
Tertiary Treatment		
Tertiary Filters	Media (carbon/sand/ gravel) filters to treat water to tertiary treatment level.	Four of the fourteen filters would be impacted
Chlorine Contact Tanks	Provide disinfection for recycled water. Back-up disinfection for river discharge in the event of power failure or failure of the UV system.	Three out of four tanks would be impacted by Alternative 2.
Backwash Pump Station	Uses chlorinated plant effluent to backwash tertiary filters.	Partial or full relocation/reconstruction
Backwash Recovery Equalization Tank	Captures backwash waste for treatment to prevent flooding or overwhelming the treatment process.	Complete removal and replacement at yet to be identified space within VWRP
Solids Processing		
Digester #5	Treats and stabilizes primary and biological solids that are removed from wastewater.	One of the eight digesters would be impacted

Existing Structure within VWRP	Purpose	Impact from Alternative 2
Electrical Distribution		
Switchboard 41 and 42 and associated major duct banks and conduits	Major electrical distribution switchboards that provide power to multiple major pieces of equipment including air compressors (supply air to biological process), half of the influent pumps, primary sludge pumps, filter feed pumps, and many others.	Partial or full relocation/reconstruction
Emergency Generator 2	Provides temporary power during power outage.	Partial or full relocation/reconstruction
Other Operational Support		
Washwater Pump Station	Provides washwater for critical processes, such as chemical dilution and pump seal water.	Partial or full relocation/reconstruction
Storm Drain Pump Station	Collects runoff from the site and returns it to the plant influent for treatment	Partial or full relocation/reconstruction
Regional Support		
Recycled Water Pump Station	Delivers recycled water to Santa Clarita Valley Water's (SCV Water) distribution system. Owned by SCV Water.	Partial or full relocation/reconstruction
SOURCE: Geosyntec 2023		

This alternative, as discussed in the Alternative Selection Report (Geosyntec 2023), includes the proposed improvements to be constructed behind the existing MSE wall within the VWRP. The area behind the existing MSE wall accommodates a utility corridor and several process structures that support VWRP operations. This alternative would require a significant undertaking in utility and process structure relocation within the VWRP property boundaries, but the VWRP has no practical space or land for relocating these impacted utilities and process structures. Additionally, the utility relocation, impacts to existing process structures, and the need to create space for construction would have a significant impact on VWRP operations, as summarized in Table 5-2 (Geosyntec 2023). Consequently, these operational impacts would significantly increase the risk of operational shutdowns, which would disrupt essential wastewater treatment services and adversely affecting public health and the environment. Although Alternative 2 would minimize impacts to the vegetated area riverside of the MSE wall, this alternative would result in the least efficient scour protection approach from an engineering perspective. Alternative 2 is considered “not feasible” based on an engineering evaluation.

For this Alternative we can assume that the construction impact associated with the upgrades to the outfall structures would result in no change from the proposed project. In addition, post-construction operation of the VWRP is not expected to change, similar to the proposed project. Therefore, the comparison of Alternative 2 to the proposed project focuses on the proposed wall improvement component construction.

Ability to Meet Project Objectives

Alternative 2 would impact operations of the VWRP, which would not meet the project objective of allowing uninterrupted VWRP operation with controlled impact from construction activities. Additionally, since this alternative would provide the least efficient scour protection, this would reduce the efficiency of the main objective of the proposed project to achieve long-term protection of the middle section of the VWRP boundary in case of a future Capital Flood scour event.

Impact Analysis

Aesthetics

Under Alternative 2, improvements would occur within the existing VWRP and would not be visible from surrounding scenic vistas or impact scenic resources. This alternative would result in fewer impacts when compared to the proposed project since they would occur within the VWRP. However, the significance determination of the impact would not change.

Agriculture and Forestry Resources

Alternative 2 would be implemented within the VWRP, in a developed area with no agricultural uses, forest land, or farmland. Impacts of Alternative 2 would be similar to the proposed project.

Air Quality

Under Alternative 2, similar construction equipment would be required. However, Alternative 2 may result in an increased construction period due to the need to relocate utilities and planning for interruptions of VWRP operations during construction. Construction activities would have the potential to generate temporary pollutant emissions; however, daily criteria air pollutant emissions would likely not exceed the SCAQMD regional significance thresholds. Alternative 2 impacts would be slightly greater than the proposed project. However, the significance determination of the impact would not change.

Biological Resources

Under Alternative 2, the improvements would occur within the VWRP and would not result in permanent impacts to vegetated areas along the riverside of the VWRP associated with the underground wall of the proposed project. Construction work related to the proposed wall for Alternative 2 would not impact aquatic resources, critical habitat, or the CDFW conservation easement. Therefore, this alternative would result in fewer impacts to biological resources when compared to the proposed project.

Cultural Resources

Construction for Alternative 2 would occur within the VWRP. Although this alternative avoids construction impacts on the southwestern side of the existing MSE wall, construction associated with Alternative 2 would require ground disturbance which could encounter cultural resources. In addition, Alternative 2 may impact existing facilities within the VWRP that could be considered historic resources. Nevertheless, impacts to cultural resources would result in similar impacts to the proposed project.

Energy

Alternative 2 would require similar use of electricity and transportation-related fuels during construction of the new retaining wall. Additional construction would be required for the relocation of utilities. Nevertheless, Alternative 2 impacts to energy would be similar to the proposed project.

Geology, Soils, and Paleontology

Alternative 2 would require excavation for the construction of the retaining wall and relocation of utilities. The overall location of Alternative 2 and the proposed project area are similar and would likely result in similar impacts related to geologic hazards. In addition, there is the potential for paleontological resources to be encountered during excavation. As such, impacts related to Alternative 2 would be similar to the proposed project.

Greenhouse Gas Emissions

Under Alternative 2, a wall would be constructed within the VWRP and would require similar equipment to those required for the proposed project. Construction duration may be increased due to the potential impacts to existing facilities within the VWRP and the need to relocate certain structures to accommodate the new wall. Therefore, impacts related to Alternative 2 would be greater than that of the proposed project.

Hazards and Hazardous Materials

Under Alternative 2, the majority of the work would occur within the VWRP for the wall improvements component. Alternative 2 would still require the routine transport and use of potentially hazardous materials, including fuels, oils and lubricants, solvents and cleaners, cements and adhesives, degreasers, cement and concrete, and asphalt mixers during the construction phase. However, this work would not occur in proximity to the Santa Clara River, but rather within the VWRP. In addition, since the work would occur within the VWRP, the potential fire hazard compared to work within the vegetated area along the southwestern side of the existing VWRP wall would be reduced. However, construction activities may require relocation of utilities such as the onsite chlorine contact tanks. Therefore, since some impacts would increase and others decrease, Alternative 2 impacts would be similar to those of the proposed project.

Hydrology and Water Quality

Under Alternative 2, work would occur within the VWRP for the wall improvements component and potential utility relocation. Since the construction of the wall would not occur within or near the Santa Clara River, impacts would be reduced. Nevertheless, BMPs and a SWPPP would still be required for the project. However, this Alternative does not provide the same level of scour protection as the proposed project and due to the reduced scour protection, Alternative 2 would result in greater impacts than the proposed project.

Land Use and Planning

Alternative 2 would result in construction of the new wall within the VWRP. The proposed project includes an underground retaining wall, which did not result in impacts to land use and planning. Impacts related to Alternative 2 would be similar to the proposed project.

Mineral Resources

Alternative 2 improvements would still be located in MRZ 2 designated areas; however, no mineral extraction or other mining operations currently occur within the project site and would not result in the loss of availability of a known mineral resource or mineral resource recovery site. Alternative 2 impacts would be similar to the proposed project.

Noise and Vibration

Under Alternative 2, construction activities would occur in closer proximity to existing VWRP facilities and structures. Vibration impacts related to existing structures may be increased due to work occurring within the VWRP. Construction occurring within the VWRP which is adjacent to an existing MSE wall, would reduce potential noise impacts to the nearest sensitive receptor. Alternative 2 impacts related to vibration would be greater than the proposed project and impacts related to noise would be fewer than the proposed project.

Population and Housing

Alternative 2 would include improvements to existing structures associated with the VWRP and would not contribute to a substantial increase in unplanned population growth or displace a substantial number of existing people or housing. Impacts would be similar to the proposed project.

Public Services

Under Alternative 2, there would be no requirement for additional school facilities, park facilities, or other governmental facilities. This alternative would result in similar demand for fire protection and police protection services as related to the proposed project. Therefore, Alternative 2 impacts would result in similar impacts to the proposed project.

Recreation

Alternative 2 would not require impacts to existing recreational areas or include the construction of new, or increase use of, existing recreational facilities. Alternative 2 would result in similar impacts to the proposed project.

Transportation

Alternative 2 would not impact or require roadway, pedestrian, bicycle, or access point improvements or within the project vicinity and would be consistent with adopted transportation-related programs, plans, or policies. Due to additional work required to relocate existing utilities to construct a wall improvement, it is anticipated that Alternative 2 would increase in truck trips and construction timeline. As such, impacts associated with Alternative 2 would be greater than those of the proposed project.

Tribal Cultural Resources

Under Alternative 2, the majority of the construction would be located within the VWRP. Work within the VWRP would result in reduced impacts related to tribal cultural resources as compared to the proposed project occurring on the southwestern side of the VWRP middle section wall. Therefore, Alternative 2 would result in reduced impacts when compared to the proposed project. However, the significance determination for Alternative 2 would not change as construction of the outfall structures would still occur on the riverside similar to the proposed project.

Utilities and Service Systems

Under Alternative 2, existing utilities along the VWRP-side of the MSE wall would be impacted during construction, as described in Table 5-2. Thus, existing VWRP operations would be impacted, preventing VWRP from providing an essential public service. Therefore, Alternative 2 would result in greater impacts when compared to the proposed project.

Wildfire

Under Alternative 2, work would occur within or near an area designated as Very High Fire Hazard Severity Zone (VHFHSZ), as designated by CAL FIRE. Construction of Alternative 2 would reduce the construction time within the vegetated area on the southwestern side of the VWRP and move construction to within the existing VWRP boundaries. Alternative 2 impacts related to wildfire would be reduced when compared to the proposed project.

5.4 Environmentally Superior Alternative

5.4.1 Environmentally Superior Alternative

The CEQA *Guidelines* require the identification of an environmentally superior alternative to the proposed project. If it is determined that the “no project” alternative would be the environmentally superior alternative, then the EIR shall also identify an environmentally superior alternative among the other project alternatives (CEQA *Guidelines* Section 15126.6[e]).

As stated above and summarized in **Table 5-3**, the No Project Alternative would avoid all of the mitigated environmental impacts associated with the proposed project but would not meet all of the project objectives. Because the proposed project does not result in any significant and unavoidable impacts, the No Project Alternative does not avoid or substantially lessen significant environmental effects.

Alternative 2: VWRP-Side Improvements would minimize impacts to three resource areas, including a reduction to biological resources, but would result in increases to six resource area impacts, as shown on Table 5-3. Although Alternative 2 could be considered the environmentally superior alternative due to the reduced biological impacts, Alternative 2 would not meet the project objective of allowing uninterrupted VWRP operations during construction activities. Additionally, this alternative would provide less efficient scour protection and would not contribute to the main objective of the proposed project to achieve long-term protection of the middle section of the VWRP boundary in case of future Capital Flood scour event. As a result, Alternative 2 was not selected as the proposed project.

**TABLE 5-3
SUMMARY OF ALTERNATIVES ANALYSIS IMPACTS
AS COMPARED TO THE PROPOSED PROJECT**

Environmental Resource	Proposed Project	Alternative 1: No Project	Alternative 2: VWRP-Side Improvements
Meets All Project Objectives?	Yes	No	No
Environmental Impacts			
Aesthetics	LTS	-	-
Agriculture and Forestry Resources	NI	-	0
Air Quality	LTS	-	+
Biological Resources	LTSM	-	-
Cultural Resources	LTSM	-	0
Energy	LTS	-	0
Geology, Soils, and Paleontology	LTSM	-	0
Greenhouse Gas Emissions	LTS	-	+
Hazards and Hazardous Materials	LTSM	-	0
Hydrology and Water Quality	LTS	-	+
Land Use and Planning	NI	-	0
Mineral Resources	NI	-	0
Noise and Vibration	LTS	-	+
Population and Housing	NI	-	0
Public Services	LTS	-	0

Environmental Resource	Proposed Project	Alternative 1: No Project	Alternative 2: VWRP-Side Improvements
Recreation	NI	-	0
Transportation	LTS	-	+
Tribal Cultural Resources	LTSM	-	0
Utilities and Service Systems	LTS	-	+
Wildfire	LTSM	-	-
NOTES:			
LTS = Less than Significant		- = fewer impacts	
LTSM = Less than Significant with Mitigation		+ = greater impacts	
SUI = Significant and Unavoidable Impact		0 = similar impacts	
NI = No Impact			

5.5 References

Geosyntec Consultants (Geosyntec). 2023. *Alternative Selection Report*. Scour Protection Structure Middle Section at Valencia Water Reclamation Plant (VWRP) Valencia, California. January 6, 2023.

CHAPTER 6

Report Preparers

6.1 Lead Agency

Santa Clarita Valley Sanitation District

1955 Workman Mill Road
Whittier, California 90601

Management

Robert Ferrante, PE, Chief Engineer & General Manager
Martha Tremblay, PE, Assistant Chief Engineer
Matt Eaton, PE, Deputy Assistant Chief Engineer
Ray Tremblay, PE, Departmental Engineer, Facilities Planning
Derek Zondervan, PE, Assistant Departmental Engineer, Facilities Planning
Russell Vakharia, PE, Division Engineer, Wastewater Planning
Ziad A. El Jack, PE, PMP, Supervising Engineer, Wastewater Planning

Coordinator

Mandy Huffman, Environmental Planner, Wastewater Planning

Technical Contributors

Kevin Monroe, PE, Division Engineer, Structural, Architectural & Geotechnical Design
Nitikhun (Nicky) Nitichaivorrakul, PE, GE, Senior Engineer, Structural, Architectural & Geotechnical Design
Jessica Burkhead, PE, Supervising Engineer, Civil and Mechanical Design
Mary Lee, PE, Supervising Engineer, Civil and Mechanical Design
Joseph Montoya, PE, Project Engineer, Civil and Mechanical Design
Joe Chang, PE, Supervising Engineer, Water Reclamation Plants
Henry Phan, PE, Project Engineer, Water Reclamation Plants
David Rothbart, PE, Division Engineer, Air Quality
Warisa Niizawa, PE, Supervising Engineer, Air Quality
David Pierce, PE, Division Engineer, Water Quality
Frank Guerrero, PE, Supervising Engineer, Water Quality
Dave Guttman, Senior GIS Analyst, Wastewater Planning

Santa Clarita Valley Sanitation District Geotechnical/Structural Consultant

Jerko Kocijan, PHD, PE, GE, Principal Engineer, Geosyntec Consultants, Inc.

6.2 EIR Authors and Consultants

Environmental Science Associates (ESA)

1010 E. Union Street, Suite 203
Pasadena, California 91106

Tom Barnes, Project Director
Nicolle Steiner, Project Manager

ESA Technical Staff

Michael Burns
Claudia Camacho-Trejo
Fatima Clark
Sara Dietler
May Lau
Brandon Mukogawa
Justin Nguyen
Shannon Papin
Alan Sako
Russell Shapiro
Monica Strauss
Robert Sweet
Sonya Vargas
Stephanie Villegas
Tim Witwer